

Wylfa Newydd Project A5025 On-line Highway Improvements

Proposed Development Summary



APPLICATION November 2017

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1 Introduction and Background

1.1 Introduction

- 1.1.1 This document provides a summary of the Environmental Report and associated documents, produced to support the planning application submitted by Horizon to the Isle of Anglesey County Council (IACC) for the proposed A5025 On-line Highway Improvements.
- 1.1.2 The proposed scheme is required to improve the current condition of the road surfacing, extend the design life of the highway, accommodate the future flows of traffic, and ensure that the A5025 is of a suitable quality to enable the construction and operation of the Wylfa Newydd Project.
- 1.1.3 The A5025 On-line Highway Improvements form part of Horizon's wider transport strategy to reduce the predicted impacts of traffic that would travel along this part of the highway network, associated with the construction and operation of the proposed new nuclear power station on land west of Cemaes as part of the Wylfa Newydd Project.
- 1.1.4 The Power Station would consist of two UK Advanced Boiling Water Reactors, which would generate 2,700 megawatts of electricity, providing enough secure, low carbon power for around five million homes for approximately 60 years. It would also create long-term employment opportunities and economic benefits for Anglesey and North Wales.

1.2 Consultation

- 1.2.1 Consultation relevant to the A5025 On-line Highway Improvements has been carried out by Horizon.
- 1.2.2 The Wylfa Newydd Project was widely consulted on in late 2014, during the summer of 2016 and during May/June 2017 as part of the pre-application processes required for the DCO application. There was little feedback that related to the A5025 On-line Highway Improvements.

Informal consultation

- 1.2.3 A number of public consultation events, specific to A5025 On-line Highway Improvements, took place in May 2016, during which information was provided and comments sought from those who attended. Large-scale maps were displayed to show the sections of the A5025 that Horizon proposed to reconstruct and those that would be surface dressed. Information was also presented on private means of access and how the design would affect them.

Stakeholder consultation

- 1.2.4 As the design of the proposed improvements developed, discussions were held with various organisations in order to obtain background data, information and relevant records. Key organisations consulted to date have included the Isle of Anglesey County Council (IACC) and Natural Resources Wales (NRW). The main objectives of the engagement were to discuss the approach to the

technical assessments, the appropriateness of mitigation measures to be incorporated and the highway alignment design of the A5025.

Statutory consultation

- 1.2.5 As the A5025 On-line Highway Improvements meet the definition of 'major development' under the *Town and Country Planning (Development Management Procedure) (Wales) Order 2012*, there was a requirement to carry out Pre-Application Consultation and publication in accordance with section 61Z of the *Town and Country Planning Act 1990*.
- 1.2.6 Horizon consulted during August 2017 and responses received during this consultation period have been considered in finalising the highway design, environmental assessments and supporting documents for the planning application. The consultation activities undertaken have been summarised in the A5025 On-line Highway Improvements Pre-Application Consultation Report accompanying the planning application. The report also summarises the responses received and how they have been taken into account.

2 Description of the A5025 On-line Highway Improvements

2.1 Introduction

2.1.1 This section describes the location and setting of the A5025 On-line Highway Improvements and the proposed construction works. Full details are included in Chapter 2 of the Environmental Report and illustrated on the planning application drawings that have been submitted. The Design and Access Statement and Chapter 2 of the Environmental Report summarise how the design process has led to the scheme now proposed.

2.2 A5025 On-line Highway Improvements location and setting

2.2.1 The location of the A5025 On-line Highway Improvements is shown on figure 1-1. The 16.19km (approximately 10 miles) stretch of the A5025 between Valley and the proposed Power Station Access Road Junction has been divided into eight sections:

- Section 1 – A5 east of Valley junction to north of Valley Junction (A5/A5025) – (a length of 1.06km);
- Section 2 – north of Valley Junction (A5/A5025) to north of Llanynghenedl (2.46km);
- Section 3 – north of Llanynghenedl to north of Llanfachraeth (2.28km);
- Section 4 – north of Llanfachraeth to south of Llanfaethlu (2.7km);
- Section 5 – south of Llanfaethlu to north of Llanfaethlu (1.43km);
- Section 6 – north of Llanfaethlu to north of Llanrhuddlad (3.36km);
- Section 7 – north of Llanrhuddlad to north of Cefn Coch (1.3km); and
- Section 8 – north of Cefn Coch to the proposed Power Station Access Road Junction (1.6km).

2.2.2 The A5025 follows a winding course with a number of sharp bends, and in some places the route passes through rolling agricultural land and a number of rural communities where the road is closely flanked by homes and other buildings.

2.2.3 Much of the A5025 is lined by grass verges bordered by a mixture of hedgerows and trees, fences, stone walls and cloddiau (stone-faced earth banks). At Llanfachraeth and Llanfaethlu the road marks the boundary of the Isle of Anglesey Area of Outstanding Natural Beauty (AONB).

Overview of improvements within Sections 1, 3, 5 and 7

2.2.4 The works in these sections would involve laying new road surfacing followed by the painting of road markings and the improvement of road signage where necessary.

- 2.2.5 No changes would be made to drains, junctions, boundary treatments or landscaping, and no permanent land take or earthworks would be required to implement the improved road surfacing.
- 2.2.6 A Temporary Construction Compound, incorporating a temporary pavement recycling facility, would be located on land within section 7. The location of this and an indicative layout is shown in figure 1-10.

Overview of improvements within Sections 2, 4, 6 and 8

- 2.2.7 Reconstruction and widening of the existing highway would be undertaken within sections 2, 4, 6 and 8.
- 2.2.8 The existing road surface would be excavated to 280mm (approximately 10 inches), taken to the Temporary Construction Compound for processing and recycling, and re-used as the base material for the road which would then be surfaced.
- 2.2.9 The improvements have been designed to follow the existing level and width of the carriageway wherever possible and would create a standard minimum width of 7.3m. Additional widening would be provided on some existing bends to enable Heavy Goods Vehicles to pass safely.
- 2.2.10 Widening beyond the highway boundary would require small amounts of land to be taken permanently, with boundaries and landscape planting reinstated as a like for like replacement in new positions.
- 2.2.11 Approximately 250m of new carriageway would be constructed immediately east of the existing carriageway at Bytheicws (section 4), in order to improve an existing sharp bend at this specific location.
- 2.2.12 A speed limit of 60mph has been assumed throughout sections 2, 4, 6 and 8, except through settlements and villages where speed restrictions would apply for safety reasons.
- 2.2.13 Changes would be made to a number of existing Private Means of Access (PMA) arrangements and junctions affected by widening, to improve safety and forward visibility. Boundary treatments, walls and hedges would be aligned to provide better visibility. Improvements, such as the installation of gates would also be made in some locations. This would be to connect several PRowWs that meet the road, and to create short new sections of cycleway to connect existing cycle routes that intersect with the A5025. The majority of existing laybys would be retained and unaffected by the widening.
- 2.2.14 Low-noise road surfacing would be applied in some locations to reduce the effects of noise associated with expected future traffic flows along the highway.
- 2.2.15 Road widening would also require the replacement of some bus shelters, telephone boxes, road markings and signage at different locations along the highway.
- 2.2.16 Sections of highway made redundant by the A5025 On-line Highway Improvements, such as those resulting from the improvements at Bytheicws

(section 4), would be either stopped up and returned to adjacent landowners or retained as access to existing properties.

Temporary Construction Compound

2.2.17 The Proposed Development includes, within section 7, a Temporary Construction Compound (as shown in figure 1-10). The compound would consist of:

- perimeter fencing, including wooden hoarding;
- site offices (portable cabins);
- a power generator;
- parking bays;
- storage of materials;
- a fuel store;
- parking for plant;
- staff welfare facilities; and
- a temporary recycling facility to handle and process the waste pavement material excavated from sections 2, 4, 6 and 8..

Drainage installation

2.2.18 Drainage features, including carrier and filter drains, would be installed along the route of the A5025. Other infrastructure, including culverts, gullies, dished channels and kerb drainage, would be installed to manage the increase in surface water runoff from the widened highway.

2.2.19 Two ponds would be constructed to capture the flow of runoff within section 2 and allow the discharge of water to be controlled

Boundary treatments and vegetation planting

2.2.20 Existing vegetation and boundary features would be retained where possible throughout sections 2, 4, 6 and 8. The existing and proposed boundary treatments are shown on figures 1-2 to 1-9.

2.2.21 Any new boundary features would be constructed or established in such a way that they tie into existing features. Native tree, hedgerow and shrub species would be used where possible. Some hedgerows identified for removal would be removed and replanted to a new position on the route.

2.3 Programme

2.3.1 Subject to the granting of planning permission, construction of the A5025 On-line Highway Improvements will commence as soon as possible.

2.3.2 Construction operations within sections 2, 4, 6 and 8 would be undertaken at the same time in order to reduce the total duration of disruption on the highway network. Once those works were completed the works in sections 1, 3, 5 and 7 would start.

- 2.3.3 Construction durations within sections 1 to 8 are estimated as follows:
- construction within section 2 = 52 weeks;
 - construction within section 4 = 50 weeks;
 - construction within section 6 = 62 weeks;
 - construction within section 8 = 42 weeks; and
 - surface dressing within sections 1, 3, 5 and 7 = four weeks in total.
- 2.3.4 Following the 66-week construction period, a further four-week period would be required to demobilise the Temporary Construction Compound and restore the land to its former condition.
- 2.3.5 The Improvements have been planned to keep the road open, avoiding the need for full road closures or diversions. The construction works within sections 2, 4, 6 and 8 would be undertaken in defined working areas, in 300m lengths with the option to extend to 600m where necessary, progressing along the highway as the works are implemented. The working areas would be controlled through temporary traffic management measures such as traffic lights.
- 2.3.6 The workforce would work in a single shift pattern to align with the proposed working hours:
- from 07:00 to 19:00 on weekdays; and
 - from 08:00 to 13:00 on Saturdays.
- 2.3.7 There would be no working outside of these hours or on public holidays, unless previously agreed in writing with the IACC.
- 2.3.8 During the works, temporary closures of affected PRowS would be required. The majority of these would only be short-term closures, but one footpath that crosses the land on which the Temporary Construction Compound is proposed will be temporarily closed and diverted for the entire 70-week duration of the construction and restoration works.
- 2.3.9 National Cycle Network Route 5 and Route 566 would be kept open during construction works.

2.4 Restoration

- 2.4.1 Following completion of the Proposed Development, areas of land temporarily used during construction would be returned to landowners, in a condition equal to that in place at the start of the works. This restoration of the land that has been temporarily used may take 6-12 months to return to a suitable condition.
- 2.4.2 Sections of carriageway made redundant by the A5025 On-line Highway Improvements would be stopped up and returned to adjacent landowners except where access to existing properties is required.
- 2.4.3 Land used for the Temporary Construction Compound would be restored at the end of construction over a four-week period.

3 Environmental Reporting

3.1 Background

3.1.1 The need for an Environmental Report to describe the environmental effects of the A5025 On-line Highway Improvements was agreed with the IACC in August 2016. The content of that report is summarised below.

3.1.2 In addition to the ER, the planning application for the A5025 On-line Highway Improvements is accompanied by a number of other supporting documents including:

- **Rapid Health Impact Assessment Screening Statement:** a study to understand the potential for significant effects of the A5025 On-line Highway Improvements on the health and well-being of local communities and the construction workforce. The study concludes that the changes introduced by the A5025 On-line Highway Improvements would be unlikely to have significant effects on population health.
- **Welsh Language Impact Assessment:** Horizon recognises the importance of the Welsh language and culture and has undertaken an assessment to consider the effects of the A5025 On-line Highway Improvements on Welsh-speaking communities, as well as the Welsh language, culture and traditions. The assessment concludes that the effects of the A5025 On-line Highway Improvements are primarily beneficial and proposes measures that relate to maximising future employment and supply chain opportunities for local people and local suppliers. The Welsh Language Impact Assessment is available in Welsh and English.
- **Report to Inform Habitats Regulations Assessment Screening:** An assessment in accordance with *The Conservation of Habitats and Species Regulations 2010* (Habitats Regulations) has concluded that there would be no likely significant effects on European Designated Sites due to the A5025 On-line Highway Improvements.
- **Protected and Legally Controlled Species Compliance Report:** Horizon has undertaken a study to assess whether the implementation of the A5025 On-line Highway Improvements could result in potential offences under various pieces of UK legislation. The report concludes that, with the implementation of embedded mitigation and good practice measures, it is unlikely that any offences would be caused.
- **Design Approach and Landscape Strategy:** This strategy provides an outline specification for the implementation of planting and seeding areas and an outline Landscape Management Plan.

4 Overview of potential effects

4.1 Introduction

4.1.1 This section summarises the potential effects determined from the assessment process and identifies the main mitigation measures proposed within the Environmental Report. Any further information required on methodology, study areas, details of assessments, mitigation identified and cumulative effects can be found in the relevant chapters of the Environmental Report and the Code of Construction Practice (CoCP). The CoCP sets out the general and specific standards and measures to ensure the effective planning, management and control of all construction activities.

4.2 Socio-economics

4.2.1 The assessment of the likely effects on employment, business supply chain, tourism, land use and consequences for human populations of the A5025 On-line Highway Improvements has not identified any significant effects.

4.2.2 Socio-economic receptors that could potentially be affected were identified as comprising individual and grouped residential properties, commercial businesses, agricultural holdings and community facilities, and the people and/or communities associated with them.

4.2.3 Construction of the A5025 On-line Highway Improvements would affect a number of landholdings but the small amount of land take would not result in changes to the viability of their use.

4.2.4 During the construction of the A5025 On-line Highway Improvements, Horizon anticipates a maximum of 125 construction workers would be required to construct the A5025 On-line Highway Improvements. It is expected that 75% of the workforce would be locally based.

4.2.5 It is expected that a small number of all of the businesses along the route of the improvements would experience temporary disruption during construction due to their reliance on passing trade. This effect has been reduced by keeping the road open and from the use of a phased approach to construction and traffic management.

4.2.6 The A5025 Online Improvement works would only be expected to potentially affect tourism in relation to access to individual tourism businesses, i.e. tourism attractions/hotspots and/or accommodation suitable for tourists. There would potentially be a reduction in access during construction due to traffic delays, but a subsequent improvement in access during operation. No wider impacts on tourism are expected as a direct or indirect result of the Proposed Development.

4.3 Public access and recreation

4.3.1 Desk-based studies and field surveys were undertaken to establish the current levels of use, importance and condition of these facilities. Horizon has therefore consulted with key stakeholders, specialist consultees in Wales and

the public, in order to better understand the issues associated with the footpaths and other networks in the area.

4.3.2 The activities that might result in potentially significant effects on public access and recreation are:

- temporary closures and diversions of PRowS;
- presence of construction working areas and associated traffic management measures;
- operation of the Temporary Construction Compound; and
- creation of new sections of segregated cycle route and cycle crossing locations to provide connectivity to existing cycle routes that cross the A5025.

4.3.3 The following measures would be implemented to ensure that the construction impacts of the A5025 On-line Highway Improvements on public access and recreation are not significant:

- PRowS would be kept open wherever practicable throughout the construction of the Proposed Development;
- the temporary closure of PRowS would be minimised as much as possible;
- construction works adjacent to cycle routes would be undertaken using traffic control and management measures; and
- adoption of good practice construction methods to limit noise and visual impacts and control dust, such as effective plant and vehicle maintenance and screening and sheeting or dampening of stockpiles, to help to avoid a reduction in amenity to users of footpaths and cycle routes.

4.4 Traffic and transport

4.4.1 The assessment considered the effect of the A5025 On-line Highway Improvements on changes in driver stress, changes in journey times, and changes in highway accidents and safety.

4.4.2 There would be a slight adverse effect on driver stress during construction as a result of lane closures and traffic management. There would be a slight increase in traffic flows during construction, which would result in an increase in journey times, creating a slight adverse effect. There would also be a slight effect on highway accidents and safety during construction, due to the small increase in construction-related traffic flows.

4.4.3 To mitigate the increased risk of highway accidents during construction, the contractor, will propose to temporarily reduce speed limits to reduce the risk of accidents, with agreement with IACC.

4.4.4 Once operational, there would be a slight beneficial effect on driver stress, journey times and the potential to reduce the risk of highway accidents and improve safety, as a result of improved journey conditions, including better surfacing, better visibility and a higher average speed of travel, which will improve journey time.

4.5 Air quality

- 4.5.1 The assessment of the potential effects of the A5025 On-line Highway Improvements on air quality has determined that, with the implementation of good practice measures, the potential dust and emissions at human receptors would not be significant.
- 4.5.2 The term 'air quality' refers to pollution in the air, from sources such as emissions from construction plant and machinery, vehicle exhausts, and dust generated from construction and restoration activities, which can affect plants, animals and their habitats, and human health.
- 4.5.3 The key features that could experience the greatest potential effects from each of the works areas for the A5025 On-line Highway Improvements include:
- properties, schools and workplaces within close proximity to the existing A5025; and
 - sensitive ecological sites including ancient woodland located approximately 25m west of the A5025 in section 7.
- 4.5.4 The measures that would be implemented to control emissions and dust include, but are not limited to:
- locating dusty activities as far as practicable from nearby receptors;
 - dampening down stockpiles of dusty material;
 - avoiding the use of idling engines; and
 - using lower power settings where practical.
- 4.5.5 Horizon's Dust and Air Quality Strategy, as set out in the CoCP, creates the requirements by which Horizon will manage and control dust and air quality emissions.

4.6 Noise and vibration

- 4.6.1 The assessment of the effects of noise and vibration from the construction of the A5025 On-line Highway Improvements on local communities and the environment has identified that, with mitigation (for example noise barriers) in place, there would be no significant effects. Once operational, the A5025 On-line Highway Improvements would not result in any significant effects.
- 4.6.2 Horizon has identified that the following receptors could be affected.
- Sections 1, 3, 5 and 7 – residential receptors adjacent to the surface dressing operations; however, due to the nature of the works, residential receptors have the potential to experience disruptive noise levels for a very short durations.
 - Sections 2, 4, 6 and 8 – residential receptors located in Llanfachraeth and Llanfaethlu. Receptors are expected to be subject to disruptive noise levels for two or three days at most during the widening and reconstruction works. The exception to this is the construction of the new section of road at section 4, where the noise levels could be disruptive for one receptor intermittently over a period of approximately two weeks.

- Temporary Construction Compound – the closest residential receptors are located 120m and 160m from the site of the compound. The indicative layout shown in figure 1-10 has been considered, taking into account the 2.4 m high perimeter fence hoarding. Predicted noise levels at these receptors over the assumed maximum construction period is not predicted to be significant.
- 4.6.3 Due to the temporary nature of the works, receptors closest to the construction works are likely to only experience vibration effects for a couple of hours at most, and therefore the effect would not be significant.
- 4.6.4 The Contractor would use standard good practice control measures for noise and vibration, such as positioning noisy activities away from sensitive features where possible, using low-noise and vibration plant and equipment, and scheduling works to only take place during normal daytime working hours to reduce noise and vibration effects for nearby receptors as far as practicable.

4.7 Surface water and groundwater

- 4.7.1 The assessment concluded that the construction of the A5025 On-line Highway Improvements would not have any significant effects on surface water or groundwater.
- 4.7.2 There would be some localised erosion and changes to flow causing one slight adverse effect at one location, Tan R'Allt.
- 4.7.3 The potential for the A5025 On-line Highway Improvements to affect surface water and groundwater has been considered in terms of the following:
- water quality changes;
 - changes to the ability of rainfall to enter the ground, potentially increasing stream flow and altering flood risk;
 - changes in stream flow characteristics and channel adjustment;
 - fine sediment carried in surface water runoff affecting deposition and erosion of watercourses; and
 - localised changes to groundwater recharge rates and groundwater levels due to the removal of vegetation.
- 4.7.4 In order to reduce and avoid these adverse effects, certain measures have been included in the design. These include:
- the surfacing of the Temporary Construction Compound with stone fill, which would permit the infiltration of rainfall;
 - containment of fuel storage of the Temporary Construction Compound;
 - implementation of pollution prevention measures, emergency response procedures and sediment management (in accordance with the CoCP; and
 - new highway drainage measures to manage flood risk and provide filtration and attenuation measures.

- 4.7.5 With the implementation of these measures, there would be no significant effects as a result of the construction works.

4.8 Soils and geology

- 4.8.1 The assessment of the potential effects of the A5025 On-line Highway Improvements on soils and geology concluded that there would only be one slight adverse effect, related to the permanent loss of soil for narrow excavations of less than 1m wide as a result of material mixing during excavation earthworks.
- 4.8.2 Horizon would implement the following measures to prevent any significant effects on soils and geology as a result of the construction of the A5025 On-line Highway Improvements:
- characterisation in detail of existing contamination risks and techniques to deal effectively with contamination, set out in an Unexpected Contamination Plan;
 - pollution prevention strategies, as part of the Code of Construction Practice, to prevent any accidental leaks or spills during the works;
 - soil handling measures and standards set out in a Soil Management Plan, as outlined in the Code of Construction Practice; and
 - management of all materials to ensure that they are re-used as far as possible on the site.

4.9 Terrestrial and freshwater ecology

- 4.9.1 The assessment of the effects of the A5025 On-line Highway Improvements on terrestrial (land) and freshwater ecology, comprising designated sites, habitats and species of nature conservation importance, indicates that there would not be any significant effects relating to habitat being lost, fragmented or changed.
- 4.9.2 A survey of all of the trees that would be felled as a result of the Proposed Development, and the bridges crossed by the Proposed Development was completed in September 2017. No potential bat roosting features were identified and there would not be any significant effects relating to habitat being lost, fragmented or changed.
- 4.9.3 Construction of sections 2, 4, 6 and 8 of the A5025 Highway Improvements would involve changes to boundary features, requiring removal of hedgerows, stone walls and earth banks (cloddiau). Construction works could also potentially affect great crested newts, due to the removal of boundary features within great crested newt terrestrial habitat, and otter, due to works to existing culverts at watercourses. The conclusion reached following surveys during 2017 is that the overall effect on great crested newts is considered as neutral.
- 4.9.4 Measures which would be taken to ensure affects are neutral include:
- the use of an ecological clerk of works to undertake pre-clearance checks, oversee activities and ensure requirements and measures are implemented;

- the use of buffer zones around sensitive features, such as watercourses and designated sites;
 - the translocation of hedgerows, stone walls and cloddiau that require removal would be replaced along the realigned highway boundary;
 - implementation of a CoCP and a Construction Environmental Management Plan (CEMP), including pollution prevention measures;
 - obtaining relevant European Protected Species mitigation and conservation licences as necessary; and
 - timing of works to avoid sensitive periods such as when animals are breeding, nesting, hibernating or migrating.
- 4.9.5 With the inclusion of these measures, the potential for any adverse effects resulting from the following, would be avoided:
- direct injury;
 - mortality;
 - disturbance caused by changes to background noise, vibration, visual and light stimuli;
 - poor air or water quality; and
 - introduction and spread of invasive species.
- 4.9.6 Replacement of boundary features and the landscaping of two attenuation ponds would result in slight beneficial effects.

4.10 Landscape and visual

- 4.10.1 The assessment of the potential effects of the A5025 On-line Highway Improvements has determined that, there would be some slight to moderate effects on both landscape character and visual effects (views and general amenity) in the short term, during construction and upon completion of the construction works.
- 4.10.2 In the long term, there would be no effects as landscape planting would have established and would serve its intended purpose of integrating and screening the A5025 On-line Highway Improvements.
- 4.10.3 There would be a moderate adverse effect on the landscape character at Cefn Coch within section 7 as a result of the Temporary Construction Compound, which would reduce tranquillity and increase the perception of movement within, entering and egressing the compound. All other landscape character effects would be slight adverse or neutral as a result of a temporary loss of boundary features.
- 4.10.4 There will also be adverse effects to the Anglesey AONB. Construction activities would border the AONB at sections 2 and 6, would result in the loss of a narrow corridor of AONB land at Llanyngghenedl for approximately 200m. On completion of construction, changes to the character of the AONB would be marginally perceptible; therefore, there would be no change and a neutral landscape effect in both the opening year and future years.

- 4.10.5 The special qualities of the AONB are likely to be temporarily affected during the construction of the A5025 Online Improvement Works. Construction activity and the Temporary Construction Compound are likely to be visible in expansive views. Similarly, these features are likely to be visible from some rural agricultural communities, PRow and accessible land within the AONB, for example, land at Mynydd y Garn.
- 4.10.6 However, the changes would be viewed at a distance, such as at Mynydd y Garn, or would be localised to the PRow closest to the Temporary Construction Compound rather than experienced across the whole PRow network of the AONB. On completion of construction, there would be a neutral effect on the special qualities of the AONB as the A5025 Online Improvement Works would not appear too dissimilar to the existing road corridor.
- 4.10.7 During construction, 18 receptors, spread out along the route and immediately adjacent to the construction of the A5025 Online Improvement Works would experience a moderate adverse effect due to a noticeable change in views as a result of boundary feature removals, road widening works, earthworks, attenuation pond construction and activities within the Temporary Construction Compound.
- 4.10.8 The main people who would be affected by the A5025 On-line Highway Improvements include:
- residential receptors;
 - users of PRowS;
 - users of local roads;
 - visitors to Valley cemetery;
 - visitors to Llynnon Mill; and
 - visitors to the Significant View at Carreglwyd Registered Park and Garden.
- 4.10.9 In order to reduce or avoid landscape and visual adverse effects, the following measures would be implemented:
- trees and hedgerows would be retained where possible;
 - replacement stone walls and cloddiau would be constructed to match existing boundary features, using original materials where possible;
 - temporary lighting during construction activities would be minimised, in order to reduce the effects of lighting in residential night-time views;
 - where lighting is to be used at the Temporary Construction Compound at night-time, a minimum height level of lighting would be used;
 - use of a green coloured wooden hoarding to screen views of the Temporary Construction Compound;
 - management of landscaping to ensure all such measures establish successfully as early as possible, in order to screen the road;

- native planting would be provided around the two new attenuation ponds, in order to help integrate these features into the landscape and filter views towards them; and
 - landscaping would be managed to ensure all such measures establish successfully and are maintained.
- 4.10.10 On completion of construction, landscape character and visual receptors would continue to experience slight adverse or neutral effects until landscape planting was fully established. Once established, all landscape character areas and visual receptors would experience a neutral effect.
- 4.10.11 Landscape maintenance would be undertaken by the contractor responsible for the implementation of the planting and seeding works over a period of three years.

4.11 Cultural heritage

- 4.11.1 The term 'cultural heritage' refers to heritage assets such as archaeological remains, historic buildings and the historic landscape, e.g. Capel Soar Standing Stone, Carreglwyd and Cestyll Registered Parks and Gardens. Such features can be affected either physically or by changes in their setting.
- 4.11.2 The assessment of the potential effects of the A5025 On-line Highway Improvements on cultural heritage has concluded that, with the implementation of mitigation measures to record heritage assets and landscapes, the effects would be minor.
- 4.11.3 The measures that would be implemented to reduce any slight adverse effects on archaeological remains, historic buildings (temporary intrusion on the setting) and historic landscapes so that they would not be significant include:
- informing construction workers of heritage sensitivities in the area during site inductions;
 - archaeological watching briefs (expert monitoring of excavation to identify and record any remains found);
 - photographic and earthwork surveys;
 - permanent recording and photographic surveys of historic landscapes in their current form and setting; and
 - reducing effects of removal of vegetation and field boundaries by translocating field boundaries to utilise local plant species.
- 4.11.4 The consideration of the potential effects of the A5025 Online Improvement works concludes that there will be no combined effects on cultural heritage.

5 Summary of community effects

5.1 Introduction

- 5.1.1 This section considers the potential community effects as the result of the proposed A5025 On-line Highway Improvements, where information has been drawn from the Environmental Report and standalone reports, such as the Welsh Language Impact Assessment and Planning Statement. Information from these sources has been referenced to summarise the effects on the communities adjacent to the proposed construction works.
- 5.1.2 The A5025 forms the principal access to the north and east of Anglesey, to a number of small villages and scattered rural properties in an area dominated by agriculture and tourism, as well as providing the main route to the Existing Power Station and to the proposed Wylfa Newydd Power Station.
- 5.1.3 The main communities that would be affected by the construction period of the A5025 On-line Highway Improvements include the villages of Llanrhuuddlad, Llanfaethlu, Llanfachraeth, Llanynghenedl and Valley. The villages include a number of facilities such as shops, places of worship, hotels, schools and recreational areas and the communities have a strong reliance on the A5025 as a means of accessing wider facilities and services by car.
- 5.1.4 The same communities would benefit from the improvements once they are operational as a result of the improved road surfacing and construction, road geometry, improved safety and accessibility

5.2 Local amenity

- 5.2.1 The potential local amenity effects to the adjacent communities from the Proposed Development would include noise, dust, and visual effects. The communities and residential receptors that would potentially experience local amenity effects are shown in figure 1-11.
- 5.2.2 The noise assessment has identified some adjacent residential areas, in particular in Valley, Llanfaethlu, Llanfachraeth, that would be affected by noise from the construction of the A5025 Online Highway Improvements and from the activities at the Temporary Construction Compound.
- 5.2.3 These effects would be reduced due to the proposed hours of working and limits on noise generation. Furthermore, a dedicated public liaison officer would maintain contact with the adjacent communities to provide details of the nature and timing of construction any particularly noisy activities.
- 5.2.4 In addition, noise levels would be reduced at the Temporary Construction Compound through the use of a wooden hoarding around the perimeter of the site.
- 5.2.5 The adjacent residential community areas would also have the potential to be affected by dust from construction works impacting air quality, particularly during the excavation and widening works within sections 2, 4, 6 and 8,. The construction works would be undertaken following the Dust and Air Quality Strategy, as set out in the CoCP, including dampening stockpiles and other

areas of exposed soil and locating dusty activities, such as movement of earth, away from sensitive areas. The public liaison officer would maintain contact with the adjacent communities to provide details of any particular dusty activities.

5.2.6 Local amenity effects could also arise through the use of temporary lighting and from visual effects from the construction activities. In order to minimise these potential effects, the following mitigation measures would be implemented:

- temporary lighting during construction activities would be minimised, in order to reduce the effects of lighting in residential areas;
- where lighting is to be used at the Temporary Construction Compound after dark, a minimum height level of lighting would be used;
- use of a green coloured wooden hoarding to screen views of the Temporary Construction Compound; and
- management of landscaping to ensure that planting and replacement boundary features are established successfully as early as possible.

5.3 Accessibility

5.3.1 The A5025 Online Highway Improvements would temporarily affect accessibility to residential areas, local businesses and community facilities (as shown in figure 1-11), including PRowS.

5.3.2 The Proposed Development is anticipated to have a 66-week construction period. During this time, sections of road 300m and long (with the potential to increase to 600m long where necessary) would be subject to single-lane closures as described in chapter 2 of the Environmental Report, in order to allow for the construction works to be carried out.

5.3.3 Any properties or businesses with access adjacent to the works would potentially be affected by the temporary single-lane closures. This could also include the temporary closure of parking bays and restrictions to on-street parking. These effects would be minimised through the use of phasing. Furthermore, the access to these properties and businesses would be maintained throughout the construction works.

5.3.4 The dedicated public liaison officer would also work with the affected adjacent properties and businesses in order to ensure that access is provided at all times during the works.

5.3.5 The single-lane closures would also potentially cause delays and inconvenience to the road users wanting to travel to/from facilities and communities. These effects would be minimised through the implementation of a traffic management plan by the appointed contractor, which would include the following measures:

- adherence to the set Heavy Goods Vehicle access route;
- management of deliveries to avoid peak times;

- minimising mud/dust/debris deposition on the highway and adherence to vehicle emissions standards;
- appropriate bilingual signing of the Heavy Goods Vehicle access route and single-lane closures;
- traffic management arrangements, including the temporary repositioning of bus stops and temporary footpath diversions, where necessary; and
- management of Public Rights of Way issues.

5.3.6 While minor delays are expected for people accessing community services via the A5025, the degree of disruption is considered to be low as no communities would be severely hindered or restricted from making regular journeys to/from facilities or services.

5.4 Business and employment

5.4.1 The A5025 Online Highway Improvements would have potential local effects to businesses and employment in the local communities (which are shown in figure 1-11).

5.4.2 The temporary delays and accessibility issues identified above would potentially affect passing trade for some businesses, although as the delays are likely to be minimal, as described above, these effects are not likely to be significant.

5.4.3 In addition, the appointed contractor would contact businesses in advance of the works commencing, together with an implementation of a signage strategy to clearly indicate businesses are open and accessible as usual during the construction phase.

5.4.4 These effects must be balanced against the benefits that would be provided through an increased spend in local businesses along the route of the Proposed Development and those nearby in Valley from up to 125 construction workers being present for 70 weeks.

5.4.5 Furthermore, there would be opportunities for local businesses in the surrounding area to supply construction materials to support the construction work, benefitting from the additional business generated by the A5025 Online Highway Improvements.

5.4.6 The A5025 Online Highway Improvements would only be expected to potentially affect tourism in relation to access to individual tourism businesses, i.e. tourism attractions/hotspots and/or accommodation suitable for tourists. There would potentially be a reduction in access during construction due to traffic delays, but a subsequent improvement in access during operation. No wider impacts on tourism are expected as a direct or indirect result of the Improvements.

5.4.7 The Welsh Language Impact Assessment has reported that a large proportion of Anglesey's workforce is employed in the public sector, whilst retail, accommodation and food services account for the greatest proportions of service-sector employees. This reflects, to a degree, the importance of tourism activity on Anglesey.

- 5.4.8 The contractor for the Proposed Development would be appointed under the IACC framework contract 2015, which expects a high proportion of the construction workers to be employed from the local area. As a consequence, beneficial effects are likely to be realised through local employment opportunities for construction workers.
- 5.4.9 In addition to direct employment (those employed directly to construct the A5025 Online Highway Improvements) there would be some benefits in the economy, potentially generating additional employment. This relates to expenditure by A5025 contractors on local suppliers and workers' expenditure in the local economy generating income for other local businesses who, in turn, spend a proportion of this income on suppliers of local goods and services themselves. This then generates multiple rounds of income within the local economy.

6 Conclusion

- 6.1.1 The assessments undertaken as part of the Environmental Report have confirmed that a number of low to moderate effects would occur as a result of the A5025 On-line Improvements.
- 6.8.2 A number of additional mitigation measures, as well as good practice mitigation and mitigation already incorporated into the design of the A5025 On-Line Improvements, would avoid, reduce and mitigate potential adverse environmental effects as far as reasonably practicable.
- 6.8.3 Following the implementation of the mitigation measures, there would be no residual effects once the A5025 On-Line Improvement works are operational.
- 6.8.4 The proposal to undertake the four sections of the A5025 On-Line Improvement works concurrently, shortens the timescale for disruptions and minimises cumulative effects.
- 6.8.5 On completion of the A5025 On-Line Improvement works, communities and road users will benefit from:
- improved road surfacing and construction extending the life of the highway;
 - improved road geometry and other physical constraints such as visibility at junctions and PMA; and
 - improved safety and accessibility for non-motorised users.

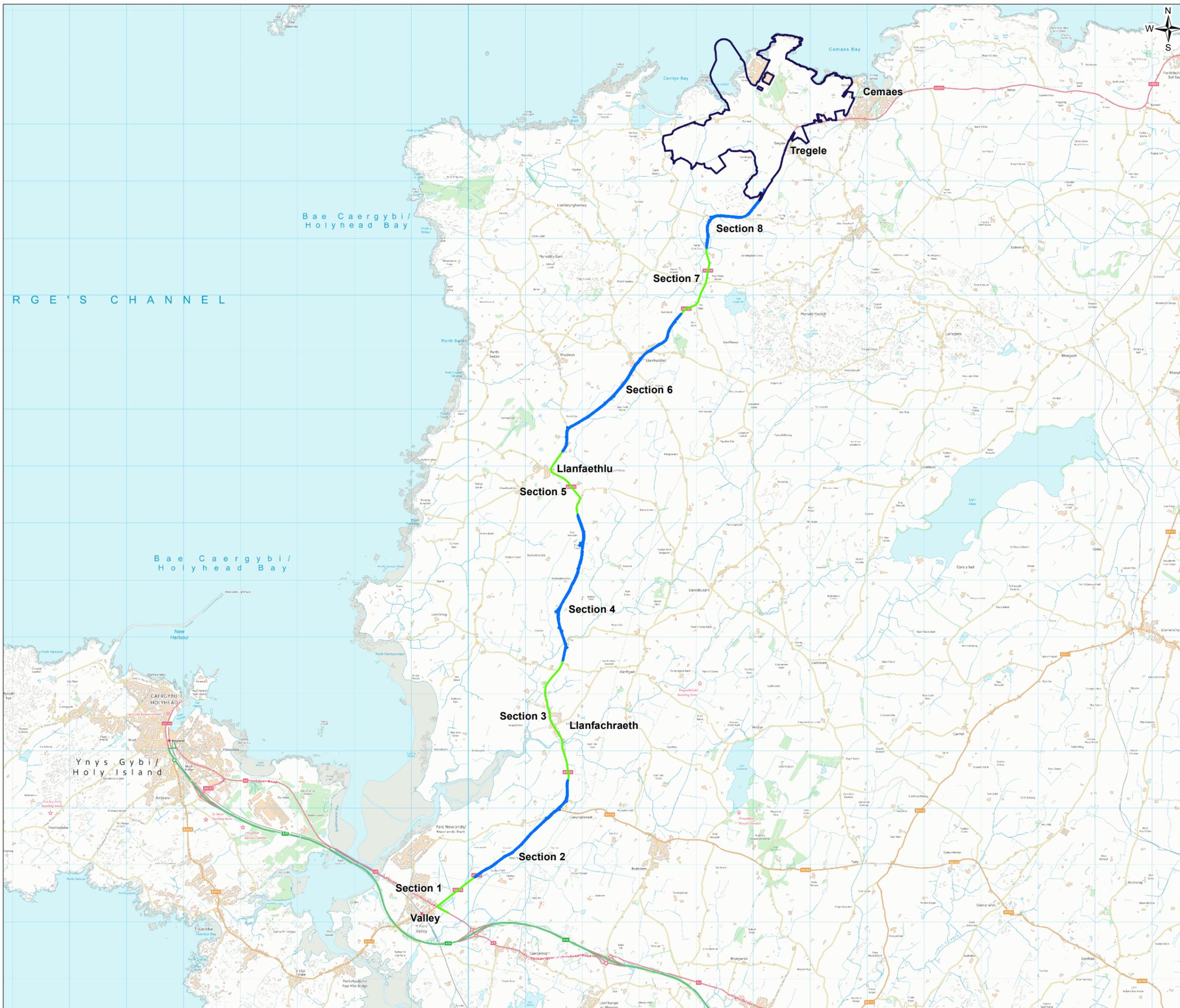
Figures

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FIGURE 1-1 A5025 ON-LINE HIGHWAY IMPROVEMENTS ENVIRONMENTAL REPORT

Legend

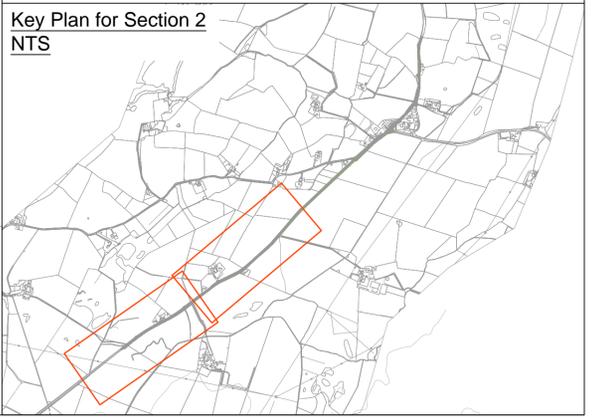
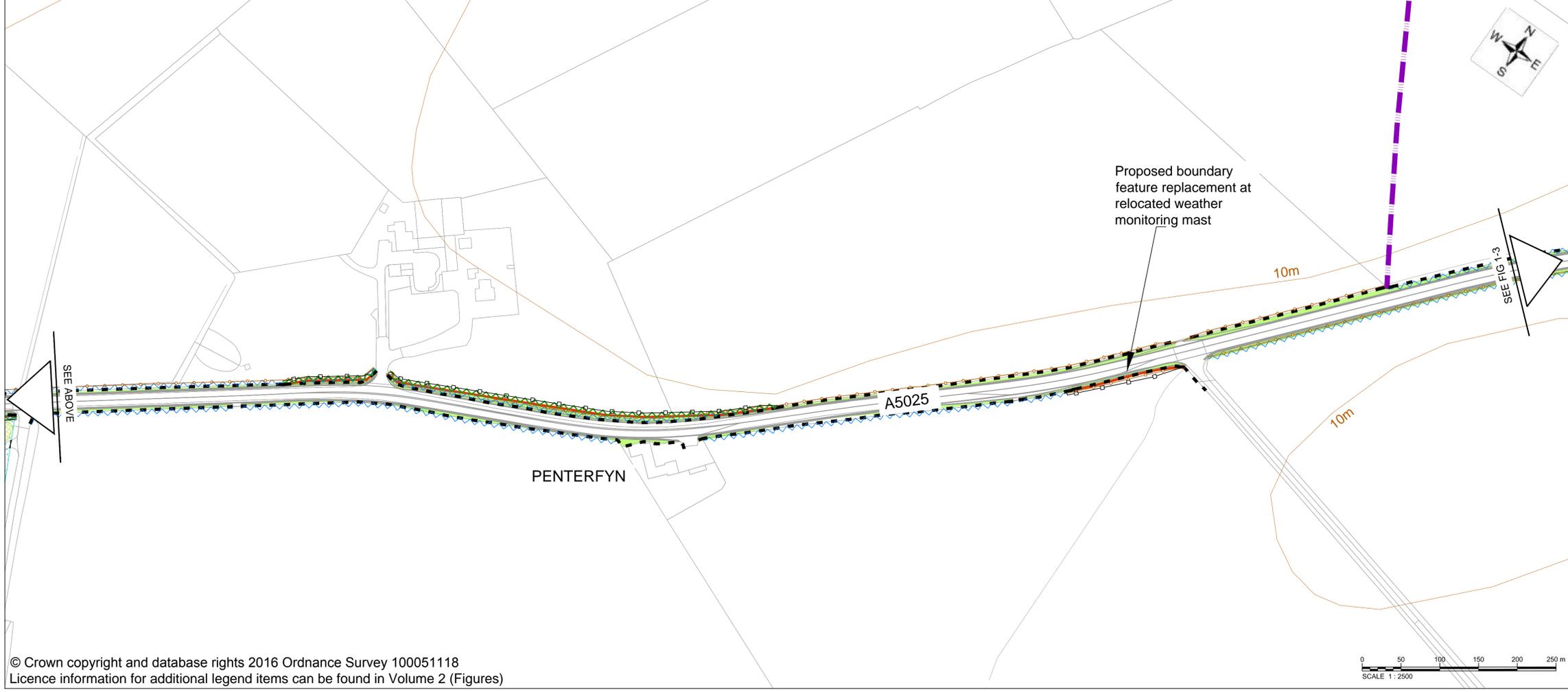
- Wylfa Newydd Development Area
- Surface dressing (Sections 1, 3, 5 and 7)
- Pavement reconstruction and widening (Sections 2, 4, 6 and 8)



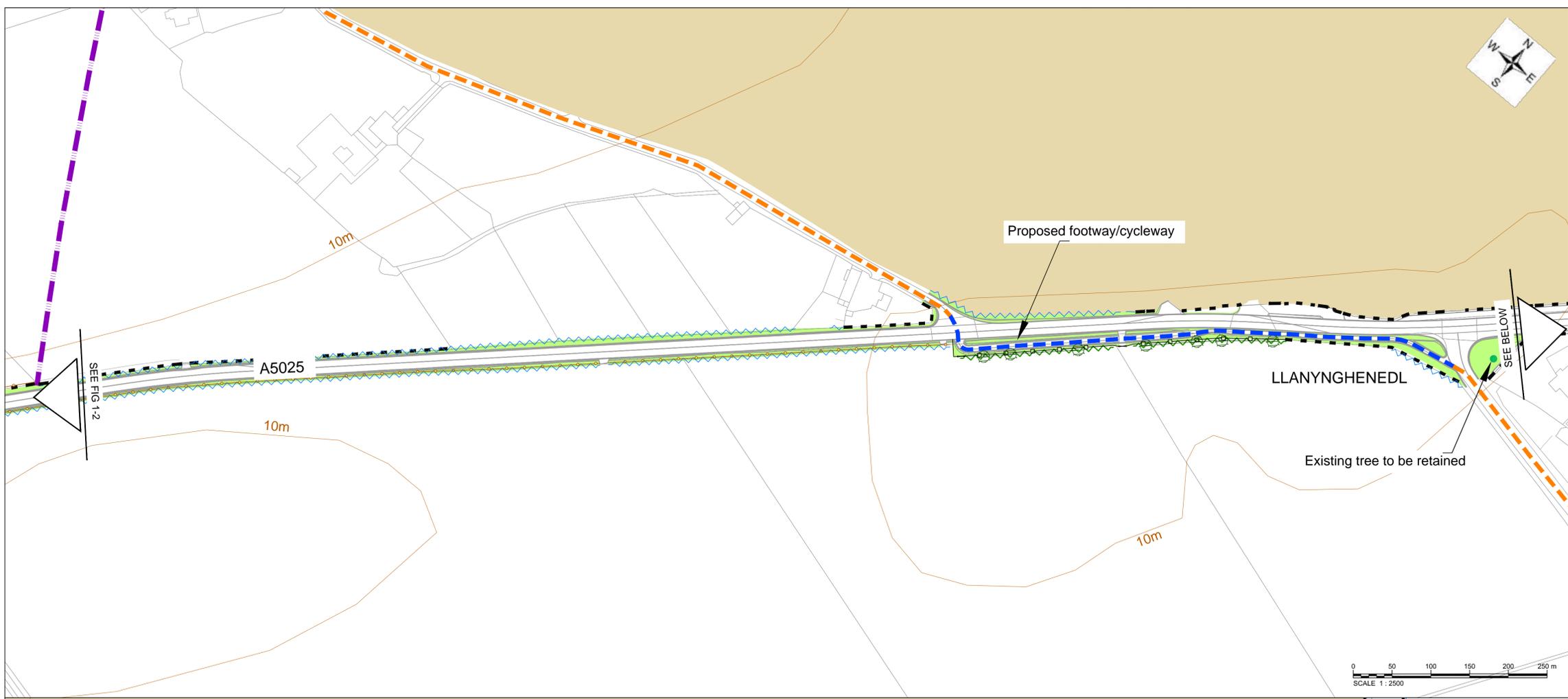
**FIGURE 1-2
SCHEME DESIGN WITH
MITIGATION SECTION 2 SHEET 1**



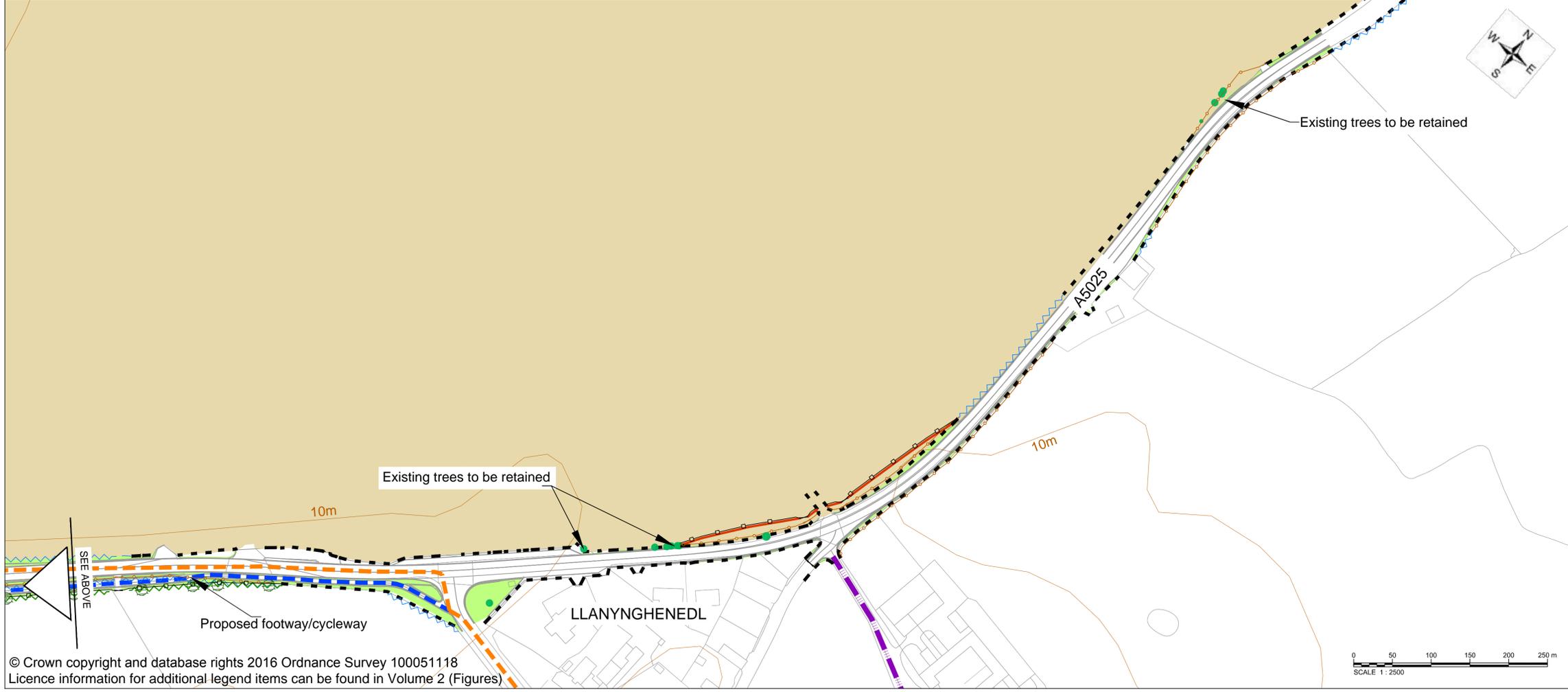
- Legend**
- 10m contours
 - Public right of way
 - Existing fence
 - LE1.3 Species-rich grassland
 - LE2.6 Native shrubs of local provenance
 - LE4.2 Native hedgerow of local provenance
 - LE4.4 Native hedgerow with trees of local provenance
 - LE6.4 Marsh and wet grassland
 - E2.1 Water pollution control measures
 - LE7.1 Proposed mortared stone wall
 - Proposed timber post and wire fence
 - Existing hedgerow
 - Existing stone wall



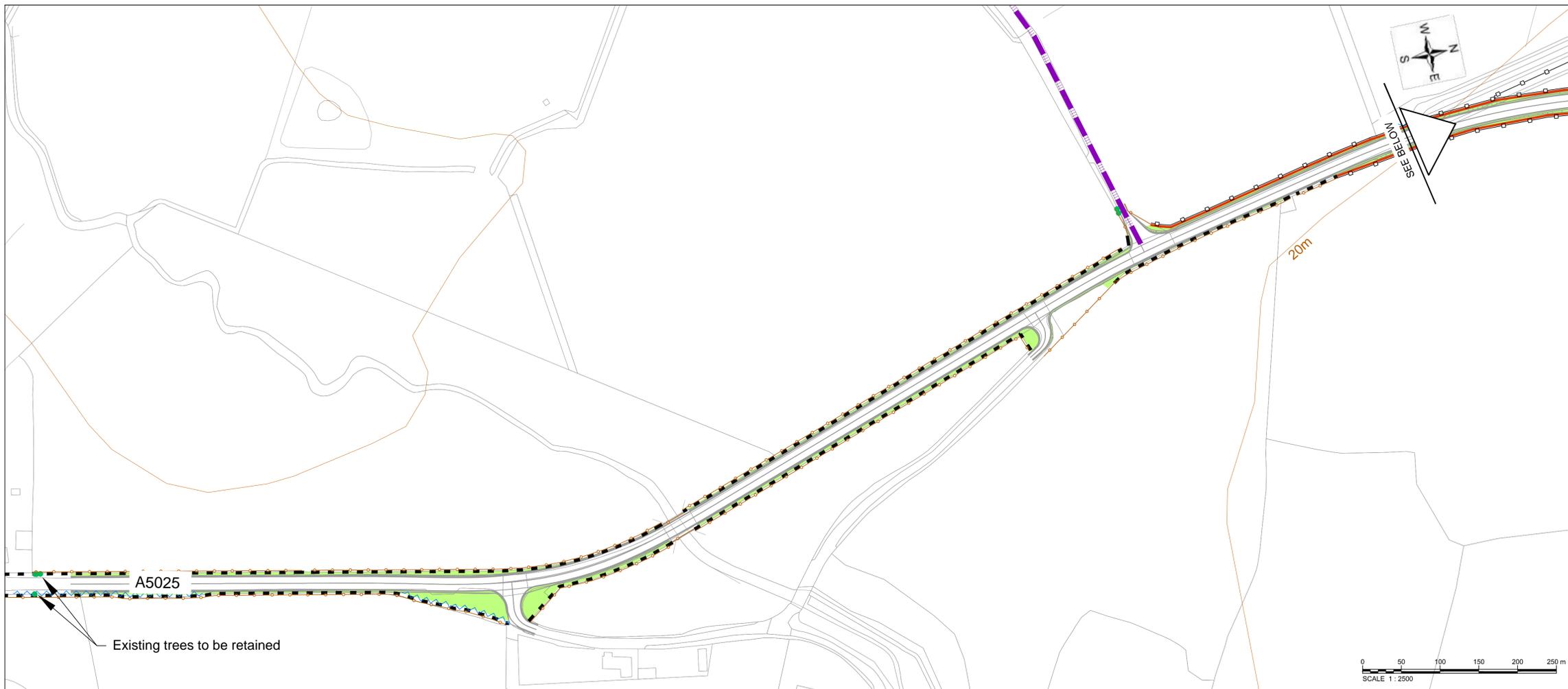
**FIGURE 1-3
SCHEME DESIGN WITH
MITIGATION SECTION 2 SHEET 2**



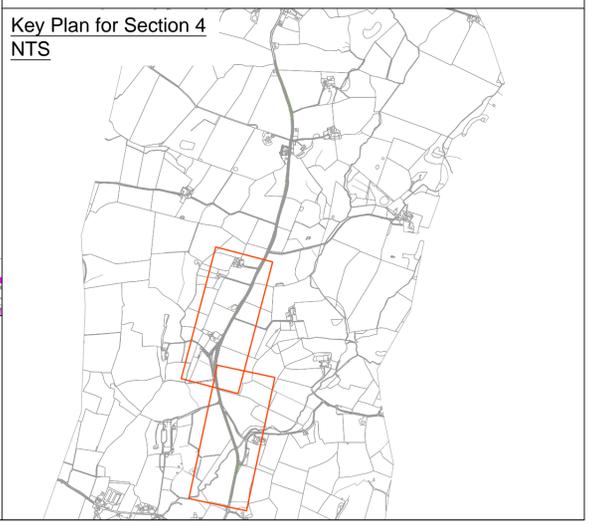
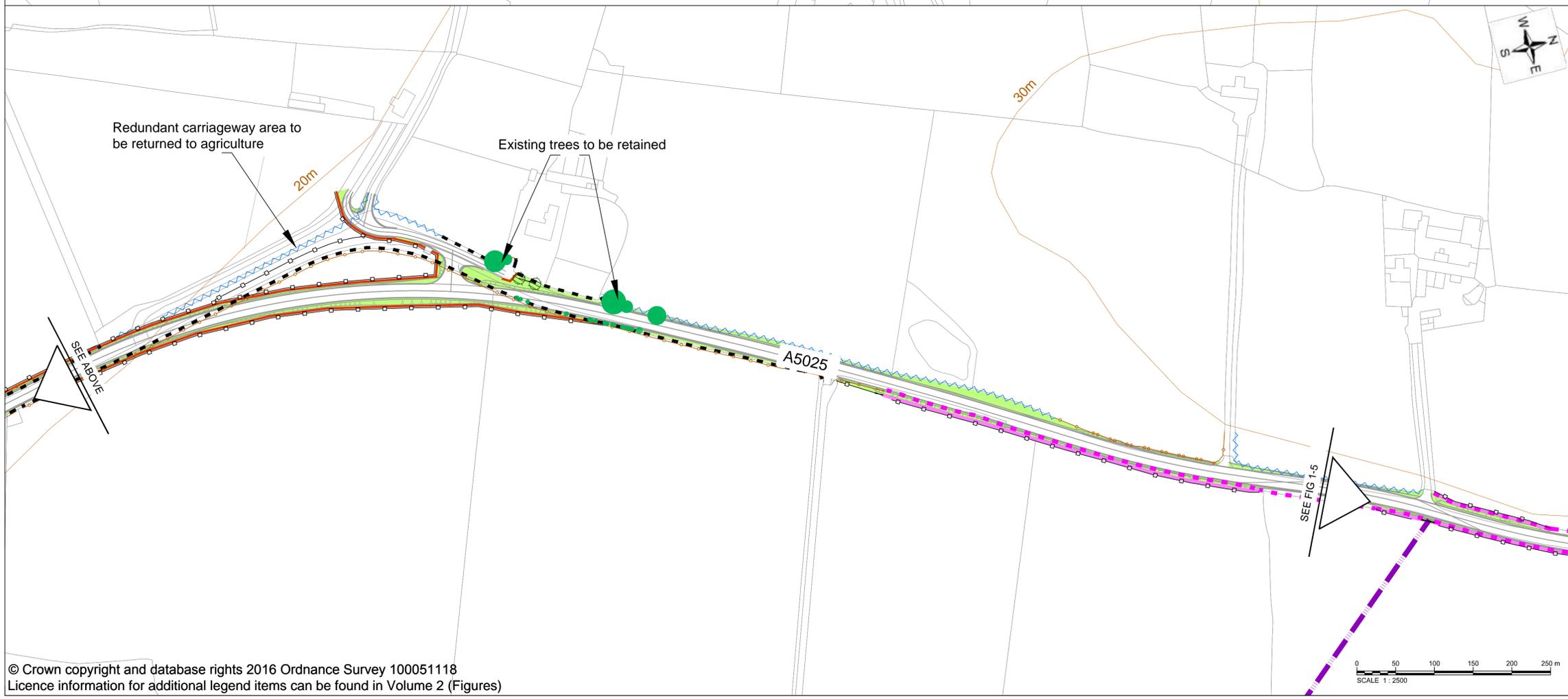
- Legend**
- Area of Outstanding Natural Beauty
 - 10m contours
 - Public right of way
 - Existing National Cycle Network (NCN) route 5
 - Proposed NCN route 5
 - Existing hedgerow
 - Existing fence
 - LE1.3 Species-rich grassland
 - LE4.4 Native hedgerow with trees of local provenance
 - Proposed timber post and wire fence
 - Existing trees
 - Existing stone wall



**FIGURE 1-4
SCHEME DESIGN WITH
MITIGATION SECTION 4 SHEET 1**



- Legend**
-  10m contours
 -  Existing hedgerow
 -  Existing fence
 -  Existing trees
 -  LE1.3 Species-rich grassland
 -  LE7.1 Proposed mortared stone wall
 -  Proposed timber post and wire fence
 -  Public right of way
 -  Existing stone wall



**FIGURE 1-5
SCHEME DESIGN WITH
MITIGATION SECTION 4 SHEET 2**



- Legend**
-  10m contours
 -  Existing hedgerow
 -  Existing fence
 -  Existing stone wall
 -  Existing trees
 -  LE1.3 Species-rich grassland
 -  LE4.2 Native hedgerow of local provenance
 -  LE7.1 Proposed mortared stone wall
 -  LE7.2 Proposed cloddiau (to be planted with LE4.2 Native hedgerow)
 -  Proposed timber post and wire fence
 -  Public right of way
 -  Existing cloddiau

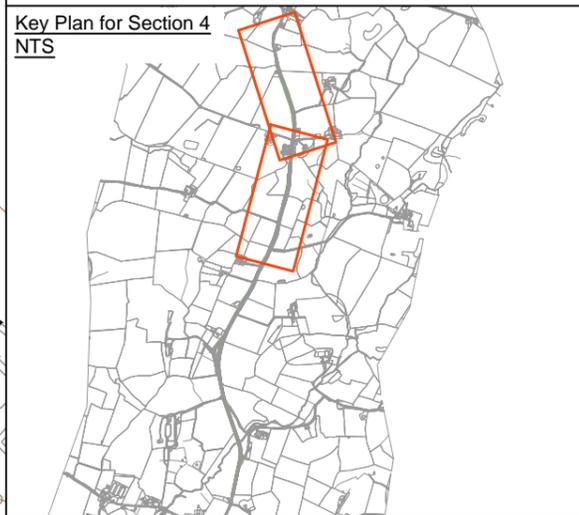
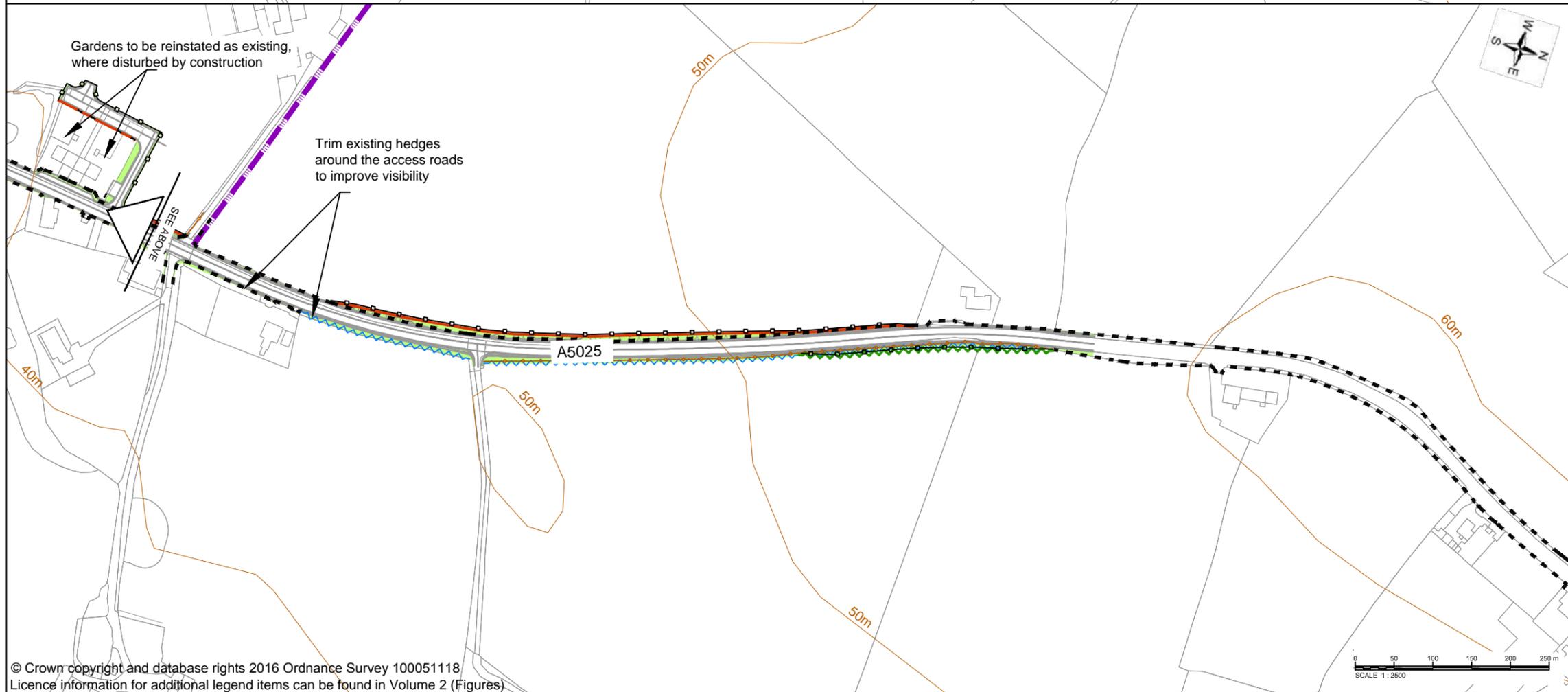
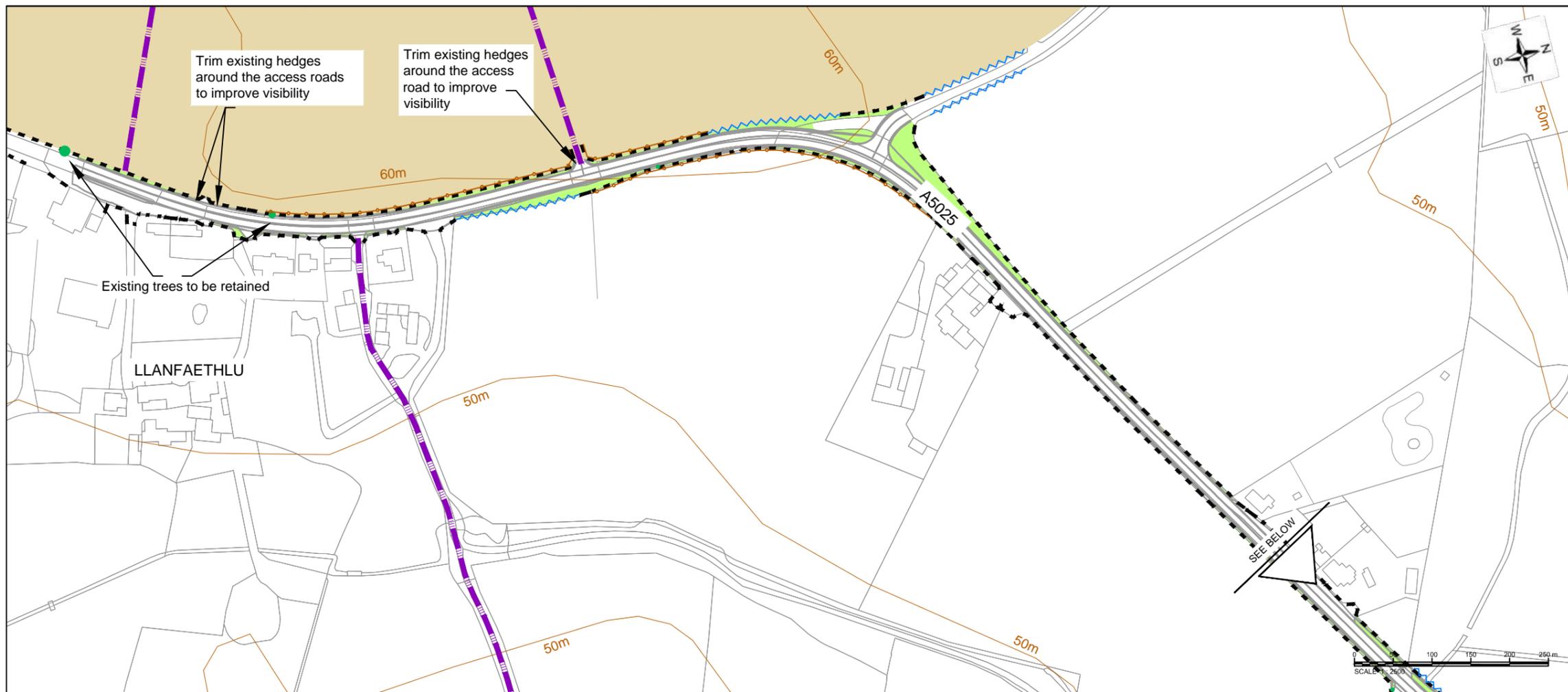
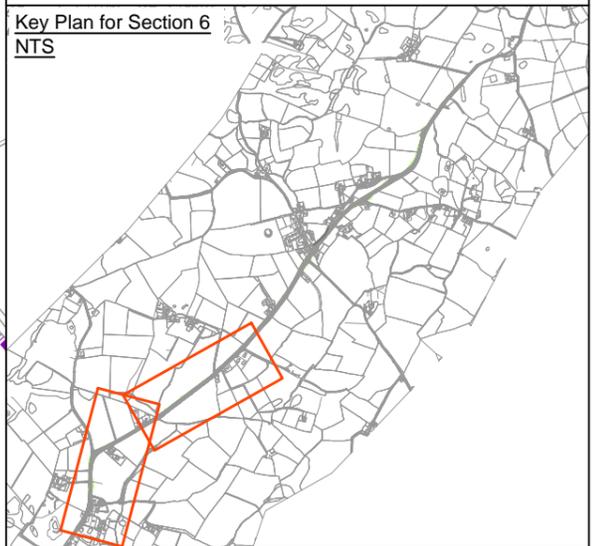
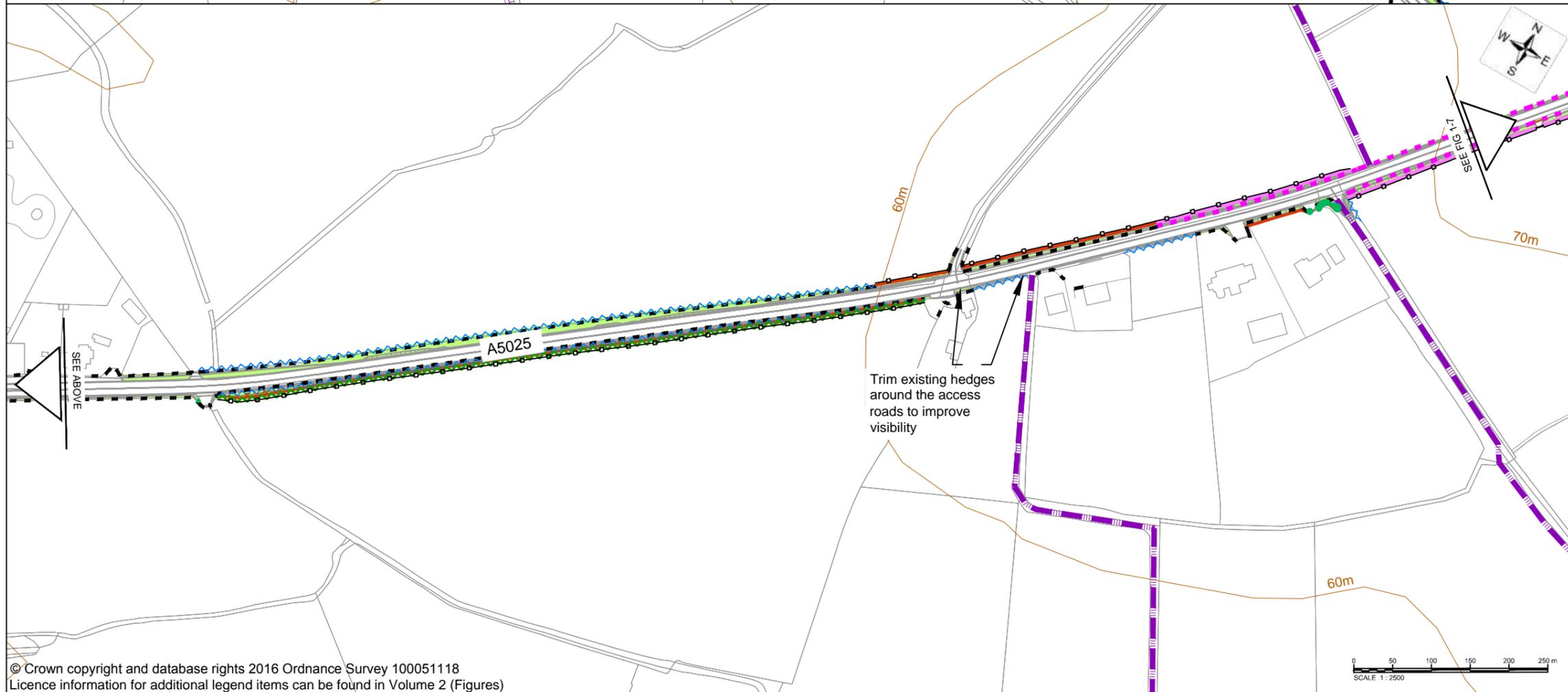


FIGURE 1-6
SCHEME DESIGN WITH
MITIGATION SECTION 6 SHEET 1

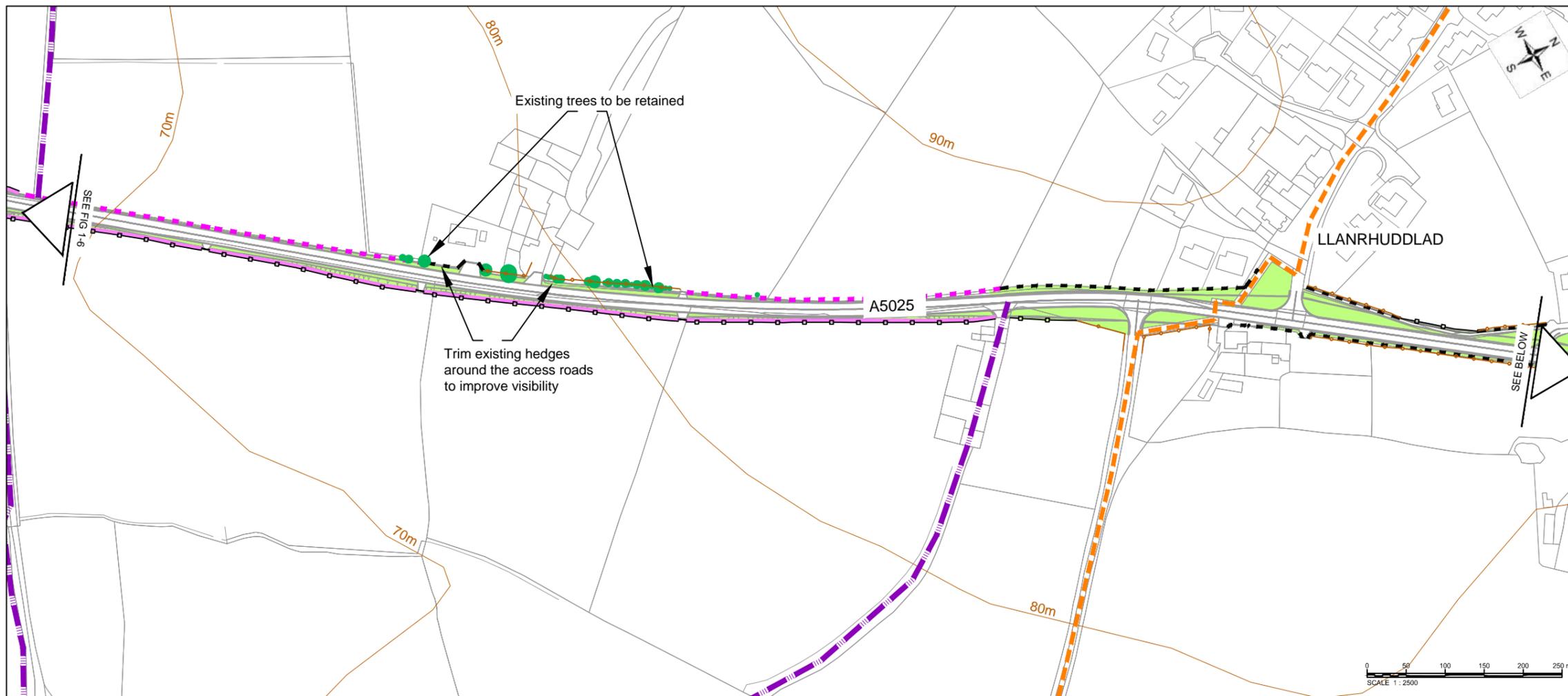


Legend

	Area of Outstanding Natural Beauty		Public right of way
	10m contours		Existing stone wall
	Existing fence		Existing hedgerow
	Existing trees		Existing cloddiau
	Existing trees to be removed		
	LE1.3 Species-rich grassland		
	LE4.2 Native hedgerow of local provenance		
	LE7.1 Proposed mortared stone wall		
	LE7.2 Proposed cloddiau (to be planted with LE4.2 Native hedgerow)		
	Proposed timber post and wire fence		



**FIGURE 1-7
SCHEME DESIGN WITH
MITIGATION SECTION 6 SHEET 2**



- Legend**
- 10m contours
 - Public right of way
 - Existing National Cycle Network route 566/
Copper Trail
 - Existing fence
 - Existing trees
 - LE1.3 Species-rich grassland
 - LE7.1 Proposed mortared stone wall
 - LE7.2 Proposed cloddiau (to be planted with LE4.2
Native hedgerow)
 - Proposed timber post and wire fence
 - Existing stone wall
 - Existing cloddiau

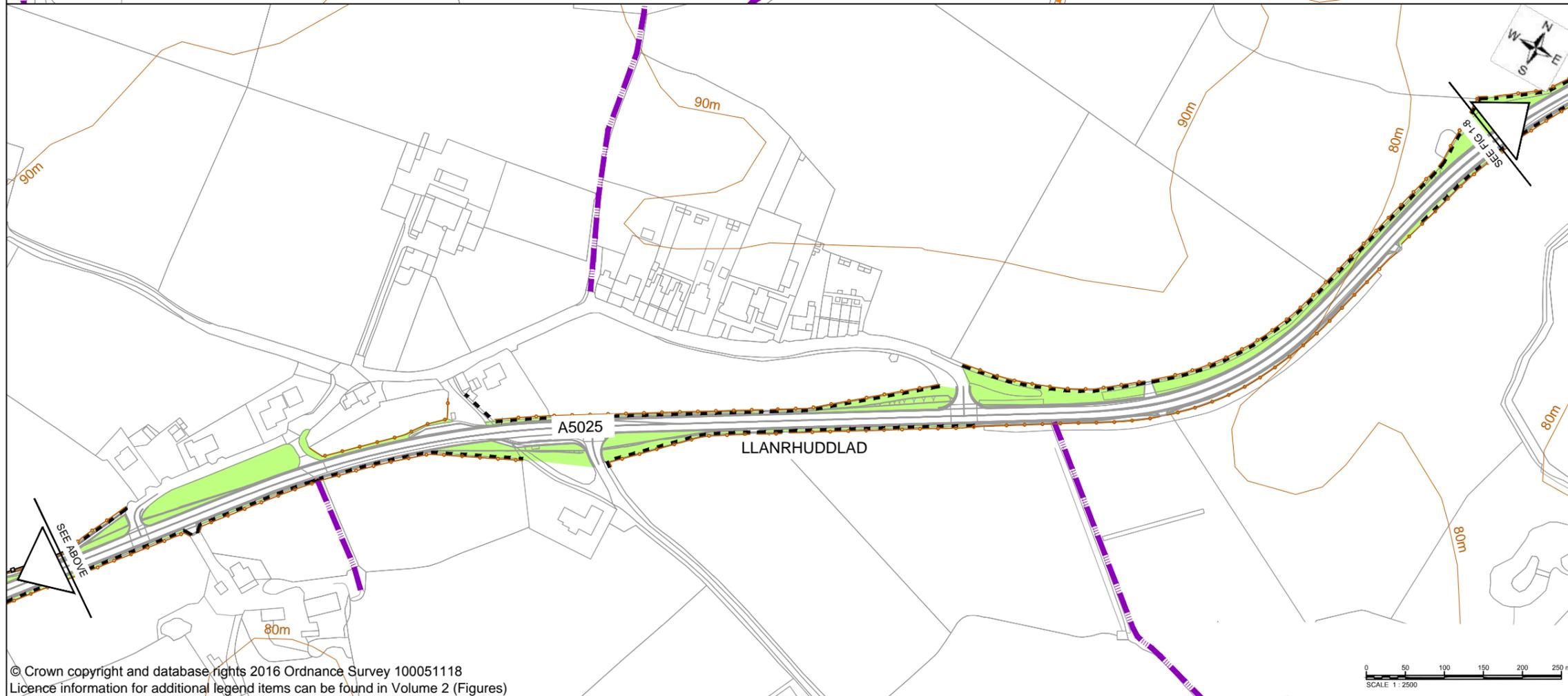
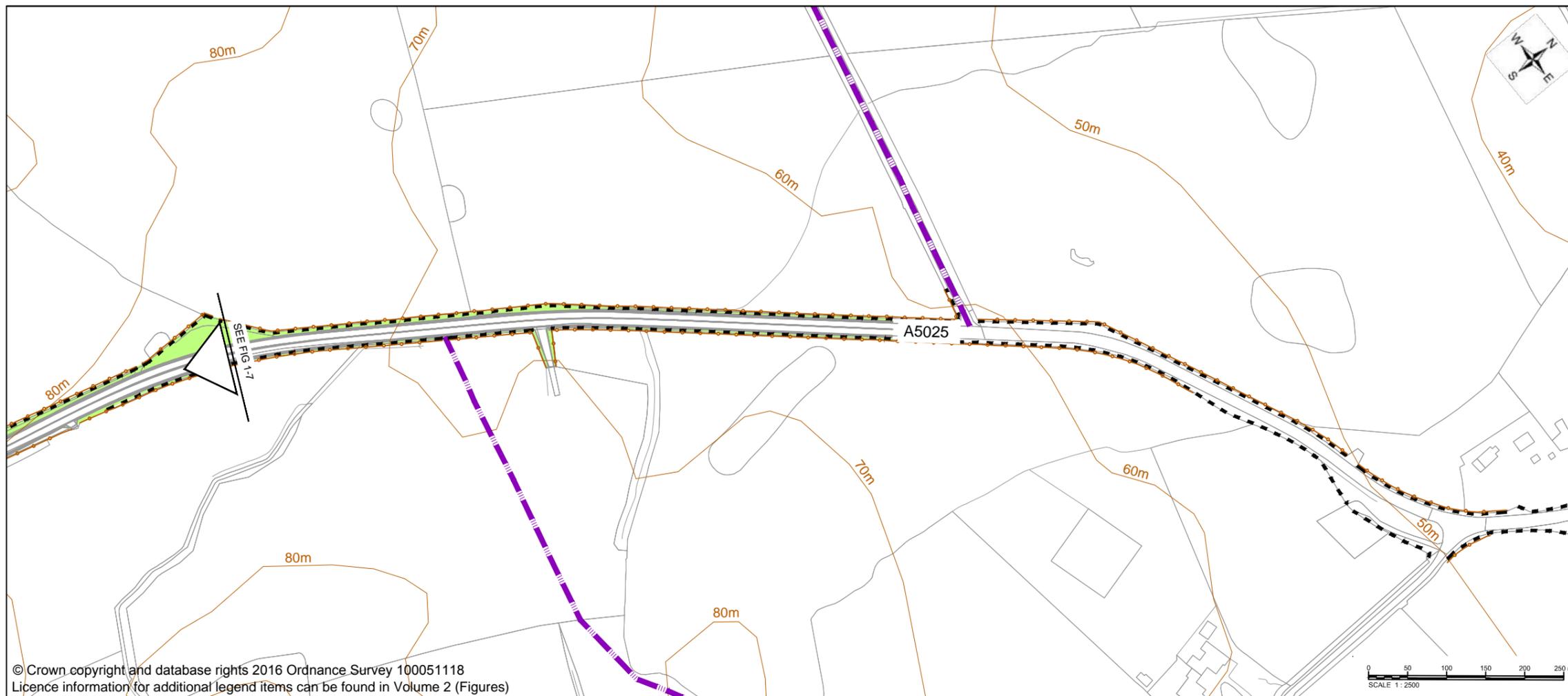
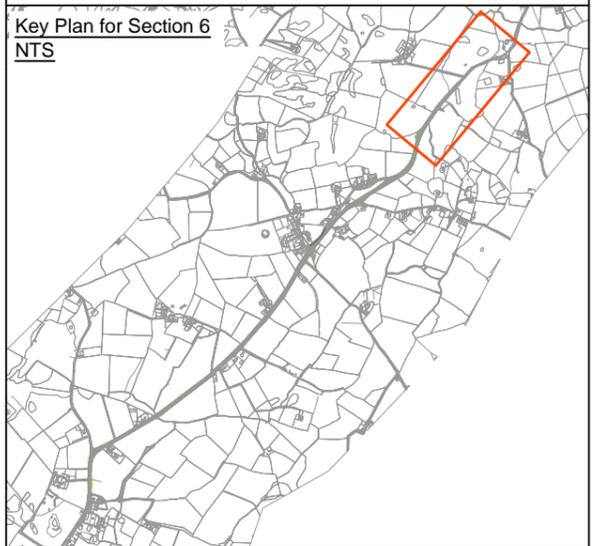


FIGURE 1-8
SCHEME DESIGN WITH
MITIGATION SECTION 6 SHEET 3



- Legend
- 10m contours
 - Public right of way
 - Existing fence
 - Existing stone wall
 - LE1.3 Species-rich grassland

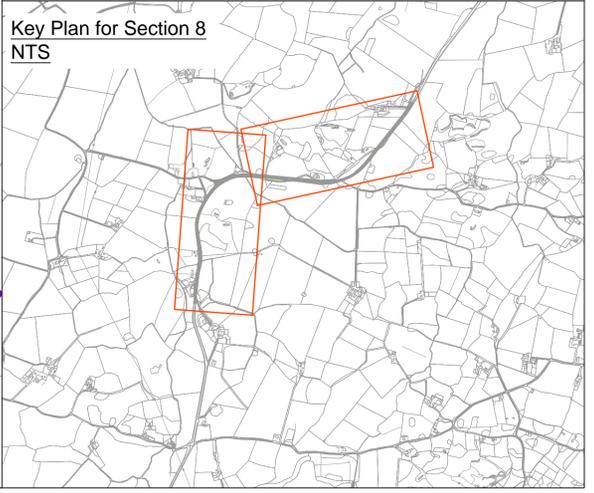
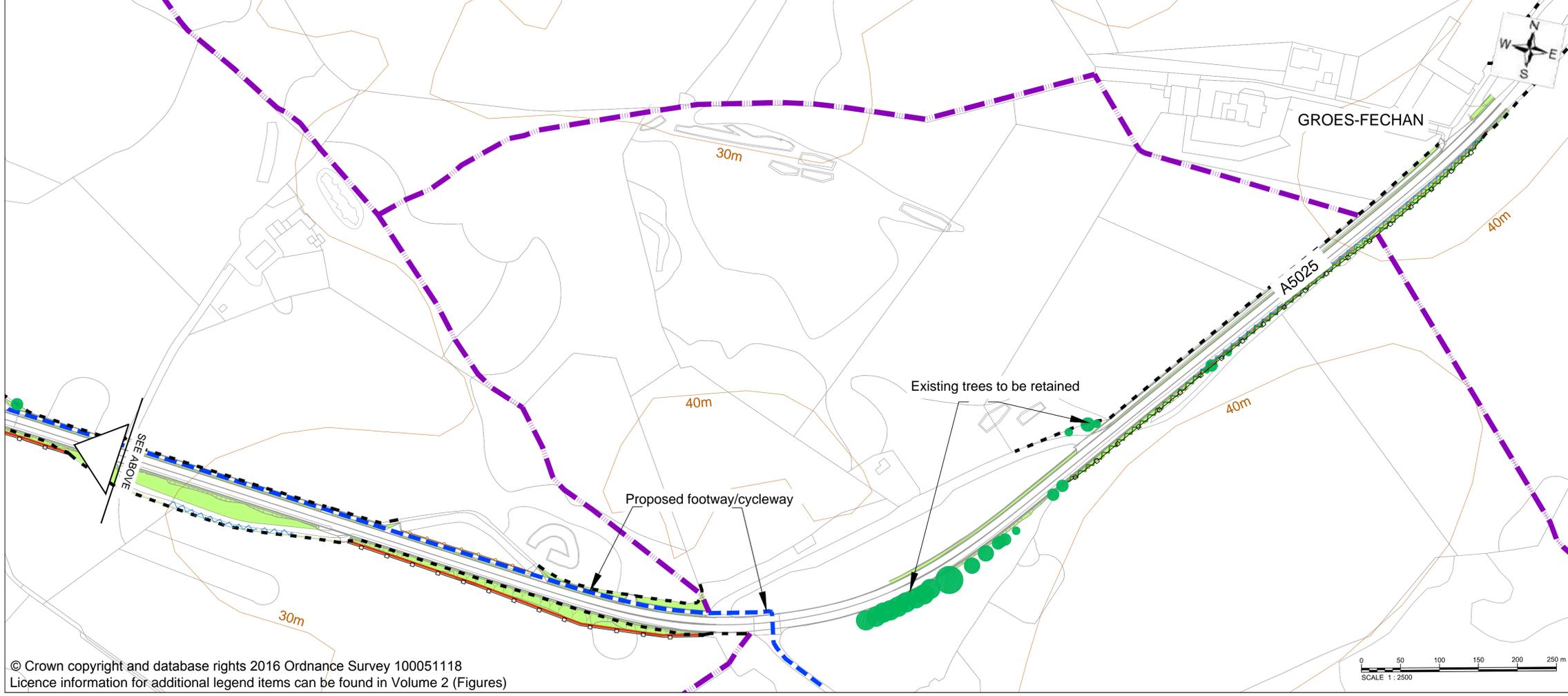
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**FIGURE 1-9
SCHEME DESIGN WITH
MITIGATION SECTION 8 SHEET 1**



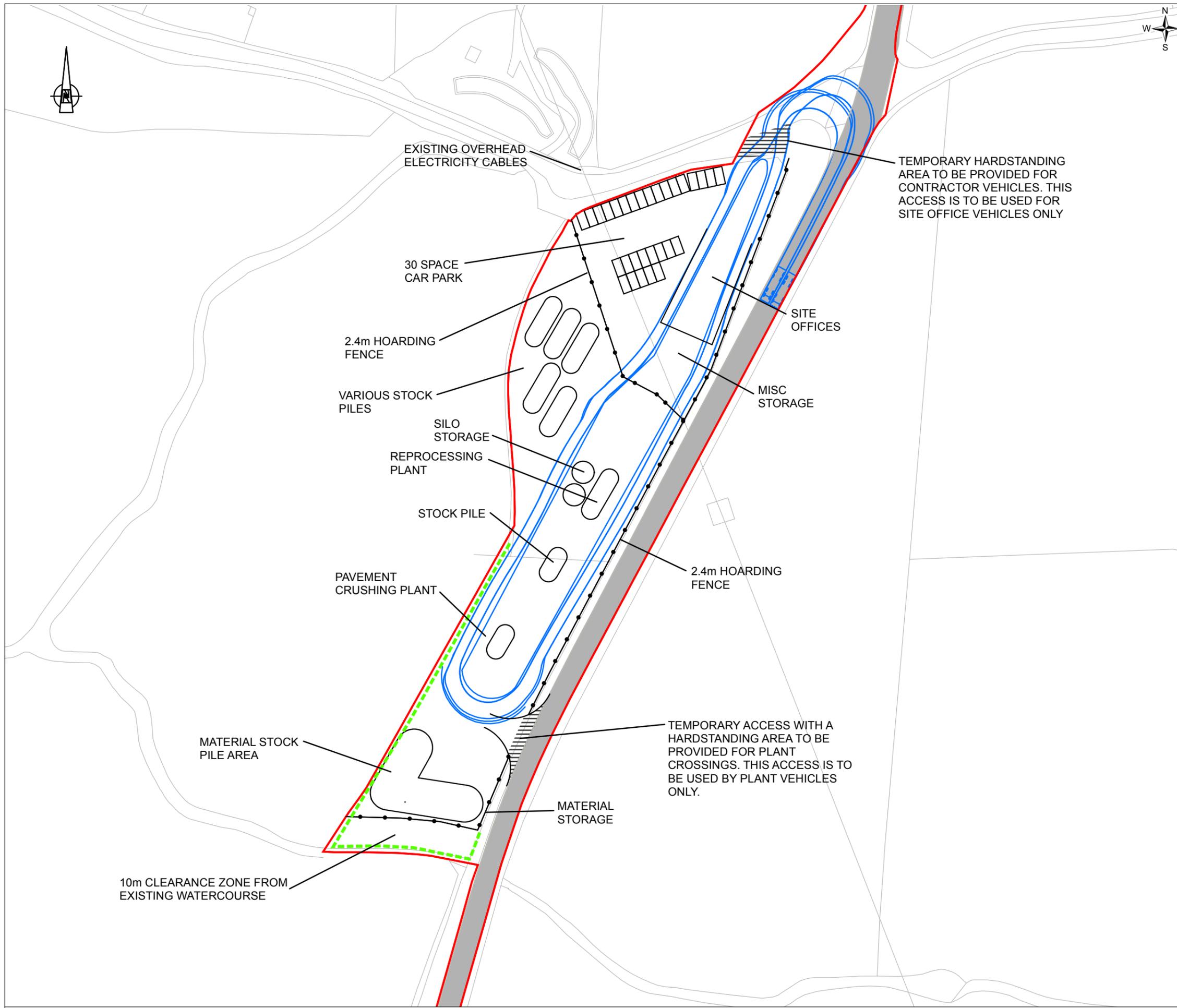
- Legend**
- Ancient woodland
 - Public right of way
 - Proposed National Cycle Network route 566/ Copper Trail
 - Existing fence
 - Existing trees
 - Existing trees to be removed
 - LE4.2 Native hedgerow of local provenance
 - LE5.1 Individual trees
 - LE7.1 Proposed mortared stone wall
 - Existing stone wall
 - Existing hedgerow
 - LE1.3 Species-rich grassland
 - Proposed timber post and wire fence
 - 10m contours



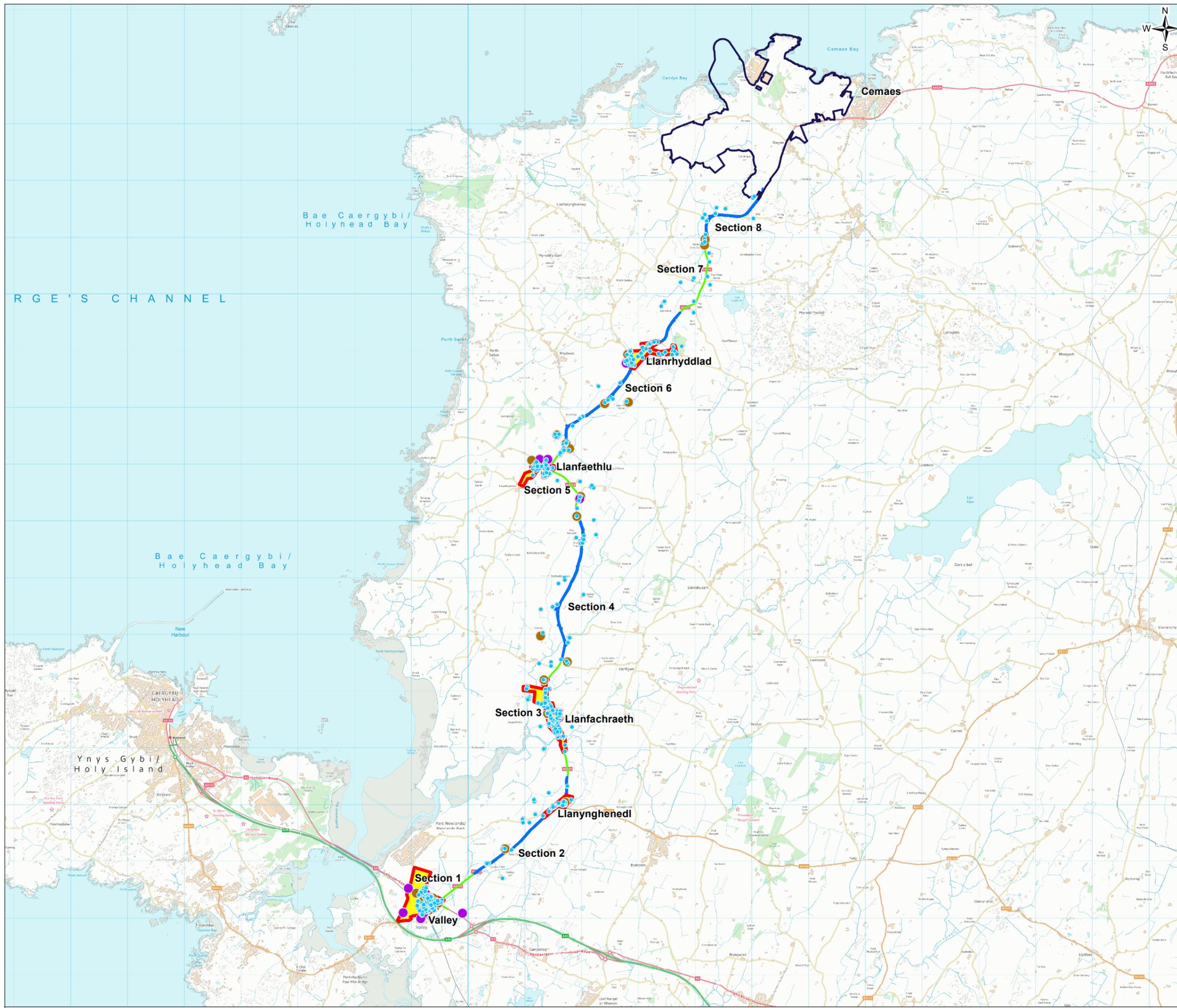
**FIGURE 1-10
INDICATIVE TEMPORARY
CONSTRUCTION COMPOUND
LAYOUT**

Legend

- Application Boundary
- A5025
- Vehicle swept path for a large tipper
- Temporary Public Right of Way diversion during construction



**FIGURE 1-11
COMMUNITIES, SENSITIVE
RESIDENTIAL AREAS AND
LOCAL BUSINESSES
POTENTIALLY AFFECTED BY
THE PROPOSED DEVELOPMENT**



Legend

- Wylfa Newydd Development Area
- Surface dressing (Sections 1, 3, 5 and 7)
- Pavement reconstruction and widening (Sections 2, 4, 6 and 8)
- Sensitive residential receptor
- Business receptor
- Community receptor
- Community area



CONTACT US:

If you have any questions or feedback regarding the Wylfa Newydd Project you can contact us on our dedicated Wylfa Newydd freephone hotline and email address, by calling on **0800 954 9516** or emailing **wylfaenquiries@horizonnuclearpower.com**

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