Barnesmore Gap Greenway

Appropriate Assessment Screening Report

Donegal County Council

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Tionscadal Éireann Project Ireland 2040

TII Bonneagar Iompair Éireann Transport Infrastructure Ireland

Donegal NRDO

Comhairle Contae Dhún na nGall Donegal County Council

Greenway

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1. Introduction

1.1 Background

Roughan & O'Donovan - AECOM (ROD-AECOM Alliance) have been engaged to prepare a Screening for Appropriate Assessment (AA) Report to inform a screening for AA to be carried out by a competent authority for the proposed Barnesmore Gap Greenway ("the proposed development").

This AA Screening Report is intended to determine whether or not the proposed development, either individually or in combination with other plans or projects, in view of best scientific knowledge, is likely to have a significant effect on areas designated as being of European importance for nature conservation ("European Sites"), thereby enabling Donegal County Council, as the Competent Authority in this case, to fulfil its obligations under Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive").

This document comprises the AA Screening Report in respect of the proposed development and was prepared by ROD on behalf of Donegal County Council and in accordance with the requirements of the Habitats Directive as transposed into Irish law by Part 5 of European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended) ("the Habitats Regulations") and the Planning and Development Acts. The aim of this AA Screening Report is to inform and assist the Competent Authority in carrying out its AA Screening by determining whether or not the proposed development, either individually or in combination with other plans and projects, has the potential to significantly affect one or more European Sites in view of their Conservation Objectives.

It is the considered opinion of ROD, as the author of this AA Screening Report, that the proposed development, either individually or in combination with other plans or projects, in view of best scientific knowledge, has the potential to significantly affect seven European Sites, namely the Donegal Bay (Murvagh) SAC, the Lough Eske and Ardnamona Wood SAC, the Croaghonagh Bog SAC, the River Finn SAC, the Cloghernagore Bog and Glenveagh National Park SAC, the River Foyle and Tributaries SAC, the Donegal Bay SPA and the Lough Derg (Donegal) SPA in view of their Conservation Objectives. Therefore, AA is required in respect of the proposed development.

1.2 Competent Experts

This AA Screening Report was prepared by Rachel Heaphy and reviewed by Patrick O'Shea. Patrick is a Principal Ecologist with over thirteen years' experience in ecological consultancy. He holds a degree in Botany from Trinity College Dublin and an MSc in Ecological Management and Conservation Biology from Queen's University Belfast. Patrick is a Full member of Chartered Institute of Ecological and Environmental Management (MCIEEM).

Rachel is an Ecologist with 5 years' experience in ecological assessment. She holds a BSc in Zoology and a Master of Research from the University of Roehampton. She is a Qualifying member of the Chartered Institute of Ecological and Environmental Management (QualCIEEM).

The Freshwater Pearl Mussel surveys and survey report were led and prepared by Owen O'Keeffe, a Senior Ecologist in AtkinsReális.

1.3 Legislative Context

Council Directive 92/43/EEC of the 21st May 1992 on the conservation of natural habitats of wild fauna and flora ("the Habitats Directive") and Directive 2009/147/EC of the European Parliament and of the Council of the 30th November 2009 on the conservation of wild birds ("the Birds Directive") list habitats and species which are, in a European context, important for conservation and in need of protection. This protection is afforded in part through the designation of sites which support significant examples of habitats or populations of species. ("European Sites"). Sites designated for wild birds are termed "Special Protection Areas" (SPAs) and sites designated for natural habitat types or other species are termed "Special Areas of Conservation" (SACs). The complete network of European Sites is referred to as "Natura 2000".

In order to ensure the protection of European Sites in the context of land use planning and development, Article 6(3) of the Habitats Directive provides for the assessment of the implications of plans and projects for European Sites, as follows:

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's Conservation Objectives. In the light of the conclusions of the assessment of the implications for the site[1] and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

In *Case C-323/17 [§34], People Over Wind*, the Court of Justice of the European Union ('the CJEU') referred to the nature of the test to be applied in making a screening determination as follows:

> *"[...] it is settled case-law that Article 6(3) of the Habitats Directive makes the requirement for an appropriate assessment of the implications of a plan or project conditional on there being a probability or a risk that the plan or project in question will have a significant effect on the site concerned. In the light, in particular, of the precautionary principle, such a risk exists if it cannot be excluded on the basis of objective information that the plan or project will have a significant effect on the site concerned (judgment of 26 May 2011, Commission v Belgium, C538/09, EU:C:2011:349, paragraph 39 and the case-law cited). The assessment of that risk must be made in the light inter alia of the characteristics and specific environmental conditions of the site concerned by such a plan or project (see, to that effect, judgment of 21 July 2016, Orleans and Others, C387/15 and C388/15, EU:C:2016:583, paragraph 45 and the case-law cited)."*

Further clarification on the use of mitigation measures was provided in Eco Advocacy[2], where the CJEU ruled that where constituent elements are incorporated into the design of a project as standard features required for all projects of that nature and not with the aim of reducing negative effects of a project on European Sites, those features should not be interpreted as mitigation measures intended to avoid or reduce harmful effects (i.e. likely significant effects) of a project on those European Sites. The judgment stated that:

> *"In the light of the foregoing considerations, the answer to the fourth question is that Article 6(3) of the Directive 92/43 must be interpreted as meaning that, in order to determine whether it is necessary to carry out an appropriate assessment of the implications of a plan or project for a site, account may be taken of the features of that plan or project which involve the removal of contaminants and which therefore may have the effect of reducing harmful effects of the plan or project on that site, where*

[1] Including, where applicable, 'sites'.

[2] Eco Advocacy v. An Bord Pleanála [2023] C-721/21

those features have been incorporated into that plan or project as standard features, inherent in such a plan or project, irrespective of any effect on the site."

Article 7 of the Habitats Directive provides that the provisions of, inter alia, Article 6(3) are to apply to SPAs under Directive 2009/147/EC (the "Birds Directive").

As stated, the requirements arising out of Article 6(3) of the Habitats Directive are transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 as amended[3] (S.I. No.477 of 2011) (the Habitats Regulations), including Part 5 thereof.

The determination of whether or not a plan or project requires AA is referred to as "Stage 1" or "AA Screening". A "Stage 1" or "AA Screening" is completed to determine whether or not the proposed development, either individually or in combination with other plans or projects, in view of best scientific knowledge, is likely to have a significant effect on areas designated as being of European importance for nature conservation ("European Sites"), thereby enabling the Applicant, to fulfil its obligations under Article 6(3) of the Habitats Directive.

In accordance with Regulation 250 of the Planning and Development Regulations and Regulation 42 of the Habitats Regulations, AA must be undertaken by the competent authorities. In Ireland, the competent authority is the relevant public authority for each plan or project (as defined in Part 1 of the Habitats Regulations), e.g. the local authority, or in this case, Donegal County Council. Consequently, the responsibility for carrying out AA Screening lies solely with the competent authority. In that respect, the AA Screening Report is not in itself an AA Screening Assessment but provides the competent authority with the information it needs in order to carry out its AA Screening.

1.4 Screening Methodology

At this stage of the process, the AA Screening Report assesses the potential effects from the plan or project on the European Sites within the zone of influence and evaluates them in view of the sites' Conservation Objectives.

This AA Screening Report has had regard inter alia to the following matters[4]:

- The threshold test is that an Appropriate Assessment will be required if a plan or project is likely *to have a significant effect* on (a) European Site(s) either individually or in combination with other plans or protects.
- It is not necessary, in order to trigger the requirement to proceed to stage 2 AA that a plan or project will '*definitely*' have significant effects on the protected site, but such a requirement will arise if it is a '*mere probability*' that such an effect exists. The requirement to carry out an AA will be satisfied if there is a 'probability *or a risk*' that a plan or project will have '*significant effects*' on (a) European Site(s).
- Consequent upon the application of the precautionary principle, such a '*risk*' will be found to exist if '*it cannot be excluded on the basis of objective information'* that the particular plan or project '*will have significant effects*' on (a) European Site(s).
- An AA will be required if, on the basis of objective information, a '*significant effect*' on a European Site 'cannot be *excluded'.* An AA will not be required if, on the basis of objective information, a '*significant effect*' on (a) European Site(s) '*can be excluded*'.
- In the case of '*doubt as to the absence of significant effects*' an AA must be carried out.

[3] Including inter alia S.I. 290 of 2013; SI 499 of 2013; SI 355 of 2015; the Planning, Heritage and Broadcasting (Amendment) Act 2021, Chapter 4; SI 293 of 2021.

[4] See Eoin Kelly v. An Bord Pleanála [2019] IEHC 84; Kelly v. An Bord Pleanála [2014] IEHC 400; Connelly v. An Bord Pleanála [2018] IESC 31; [2018] ILRM 453.

- The requirement to conduct an AA will arise where, at the screening stage, it is ascertained that the particular plan or project is '*capable of having any effect*' (albeit this must be any '*significant effect*') on (a) European Site(s).
- The '*possibility*' of there being a '*significant effect*' on (a) European Site(s) will give rise to a requirement to carry out an AA for the purposes of Article 6(3). There is no need to '*establish*' such an effect and it is merely necessary to determine that there '*may be*' such an effect.
- In order to meet the threshold of likelihood of significant effect, the word '*likely'* in Article 6(3) means less than the balance of probabilities. The test does not require any *'hard and fast evidence' that such a significant effect was likely.* It merely has to be shown that there is a '*possibility'* that this significant effect is likely.
- The assessment of whether there is a risk of '*significant effect'* on the European Site must be made in light, inter *alia*, of the '*characteristics and specific environmental conditions of the site concerned*' by the relevant plan or project.
- Plans or projects or applications for developments which have *no appreciable effect* on European Sites are excluded from the requirement to proceed to AA. If all applications for permission for proposed developments capable of having *any effect whatsoever* on such sites were to be caught by Article 6(3) *activities on or near the site would risk being impossible by reason of legislative overkill.*

While the threshold at the screening stage of Article 6(3) is very low nonetheless it is a threshold which must be met before it is necessary to proceed to the stage 2 AA.

Accordingly, best practice in undertaking AA Screening involves five steps as follows:

(1) The first step involves gathering the information and data necessary to carry out a screening assessment. These include, but are not limited to, the details of all phases of the plan or project, environmental data pertaining to the area in which the plan or project is located, e.g. rare or protected habitats and species present or likely to be present, and the details of the European Sites within the Zone of Influence.

(2) The second step involves examining the information gathered in the first step and a scientific analysis of the potential impacts of the project on the receiving environment, particularly the European Sites in the Zone of Influence.

(3) The third step evaluates the impacts analysed in the second step against the Conservation Objectives of the relevant European Sites, thereby determining whether or not those impacts constitute "likely significant effects", within the meaning of Article 6(3) of the Habitats Directive.

(4) The fourth step involves considering the potential for likely significant effects to arise from the combination of the impacts of the plan or project with those of other plans or projects. If it is determined in the third step that Stage 2 (AA) is required, consideration of potential cumulative impacts may be deferred to that stage.

(5) The last step involves the issuing of a statement of the determination of the AA Screening. Notwithstanding the recommendation made in the AA Screening Report, the responsibility for completing this step lies solely with the competent authority.

The following guidance documents informed the assessment methodology:

- European Commission (EC) (2021) *Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission.
- European Commission (EC) (2018) *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*. European Commission, Brussels.
- European Commission (EC) (2007) *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC: Clarification of the Concepts of Alternative Solutions,*

Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission.

- Department of Environment, Heritage, and Local Government (DEHLG) (2010) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, Dublin.
- National Parks and Wildlife Service (NPWS) (2010) *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular Letter NPW 1/10 & PSSP 2/10. National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.
- Office of the Planning Regulator (OPR) (2021) *Practice Note PN01: Appropriate Assessment Screening for Development Management.* Office of the Planning Regulator.

1.5 Ecological Assessment

In order to fully inform this AA Screening Report in respect of the proposed development, it was necessary to establish the baseline ecological conditions in the receiving environment, particularly with regard to European Sites.

1.5.1 Desk Study

The desk study for this NIS was undertaken in October 2025. During the desk study, the statutory consultee, the National Parks & Wildlife Service (NPWS), provided data on designations of sites, habitats and species of conservation interest. This included reports pursuant to Article 17 of the Habitats Directive[5] (NPWS, 2025d, e & f) and Article 12 of the Birds Directive[6] (Eionet, 2018), as well as the Site Synopses and Conservation Objectives for the relevant European Sites.

The desk study involved a thorough review of existing information relating to ecology in the vicinity of the proposed development and in the surrounding area. The following web-based geographic information systems (GISs) were used to obtain information relating to the natural environment surrounding the proposed development.

These included the NPWS *Map Viewer* (NPWS, 2025g), which provided information on the locations of protected sites, the National Biodiversity Data Centre's *Biodiversity Maps* (NBDC, 2025), which provided recent and historic records of rare and protected species in the area as well as the Environmental Protection Agency's (EPA) *Unified GIS Application* (EPA, 2025) which provided additional information on the wider environment.

As with all desk studies, the data considered were only as good as the data supplied by the recorders and recording schemes. The recording schemes provide disclaimers in relation to the quality and quantity of the data they provide, and these were considered when examining outputs of the desk study.

Freshwater Pearl Mussel

A Freshwater Pearl Mussel (*Margaritifera margaritifera*) desk study was undertaken by EcoFact, on behalf of ROD, in December 2024. The desk study was undertaken to identify existing records of Freshwater Pearl Mussel within the affected river catchments and to assess the potential for this species to occur in the watercourses that have the potential to be

[5] Under Article 17, to report to the European Commission every six years on their status and on the implementation of the measures taken under the Directive.

[6] Every three years, Member States of the European Union are required by Article 12 of the Birds Directive to report on implementation of the Directive. The most recent reporting available is for the period 2008-2012.

impacted by the proposed development. The desk study included a review of information available from the NPWS and the EPA.

1.5.2 Field Surveys

Ecological field surveys have been undertaken along the route of the proposed development by ROD Ecologists at various dates between October 2023 and March 2026. The surveys were carried out during the optimal survey periods, as per TII guidelines (TII, 2008). The survey methods followed, and the results, relevant to Appropriate Assessment, are presented in Appendix C.

The surveys adhered to the following guidelines:

- Bibby, C.J., Burgess, N.D. & Hill, D.A. 1992. Bird Census Techniques. Academic Press, London.
- BTO (2023) Wader Hub: Breeding Wader Survey Guidance. British Trust for Ornithology, The Nunnery, Thetford, Norfolk, United Kingdom.
- BTO (2011) *Bird Atlas 2007 – 2011*. British Trust for Ornithology, The Nunnery, Thetford, Norfolk, United Kingdom.
- EC (2013) *Interpretation Manual of European Union Habitats - EUR28*. European Commission, Brussels.
- Fossitt, J. (2000) *A Guide to Habitats in Ireland*. The Heritage Council, Kilkenny.
- Gilbert, G., Gibbons, D.W., Evans, J., (1998) *Bird Monitoring Methods: A Manual of Techniques for UK Key Species*. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.
- NPWS (2009) *Threat Response Plan: Otter (2009-2011).* National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.
- Smith *et al*. (2011). *Best Practice Guidance for Habitat Survey and Mapping*.
- TII (2020b). *The Management of Invasive Alien Plant Species on National Roads – Technical Guidance*. GE-ENV-01105. Transport Infrastructure Ireland.
- TII (2009) *Guidelines for Assessment of Ecological Impacts of National Road Schemes.* PE-ENV-01112. Transport Infrastructure Ireland.
- TII (2008) *Ecological Survey Techniques for Protected Flora and Fauna during the Planning of National Road Schemes.* PE-ENV-01113. Transport Infrastructure Ireland.
- TII (2006) *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes*. CC-ENV-01104. Transport Infrastructure Ireland.
- TII (2005) *Guidelines for the Crossing of Watercourses During the Construction of National Road Schemes*. CC-ENV-01101. Transport Infrastructure Ireland.

1.5.3 Assessment

The ecological baseline which was established by the desk study and field surveys described above was used to inform the assessment of the potential ecological effects likely to arise from the proposed development, particularly with regard to European Sites. Any assumptions that were made in view of gaps in the ecological data were made in strict accordance with the Precautionary Principle.

2. Description of the Proposed Development

2.1 Overview

Donegal County Council, in association with Transport Infrastructure Ireland (TII), is working to develop a greenway which will provide commuters and leisure cyclists, pedestrians and impaired mobility users with an attractive recreational trail linking the town of Donegal to the 'twin towns' of Ballybofey/Stranorlar in south County Donegal. One of the objectives of the 'Strategy for Future Development of National and Regional Greenways' (published in 2018) is to increase the number and geographical spread of greenways throughout the country over the next ten years. This will consequently grow the network and improve national connectivity, while increasing the number of users of such greenways as a visitor experience, commuting opportunity and/or as a recreational amenity.

A full description of the proposed development is provided in Appendix A to this report. Drawings for general arrangement are presented in Appendix B.

2.2 Location

The proposed development is located in County Donegal, commencing from Donegal town through to the twin towns Ballybofey/Stranorlar is shown in Figure 2-1 and Figure 2-2. The proposed development will run predominantly along the historic West Donegal railway line (undesignated) and through the area known as Barnesmore Gap, a scenic glacial valley located within the 'Bluestack Mountains' forming the main mountain pass between north and south Donegal, joining the settlements of Donegal Town and Ballybofey/Stranorlar. The overall length of the Barnesmore Gap Greenway is approximately 30km, with a further 7.5km of spurs and loops which provide additional connectivity and integration to surrounding amenities and active travel routes.

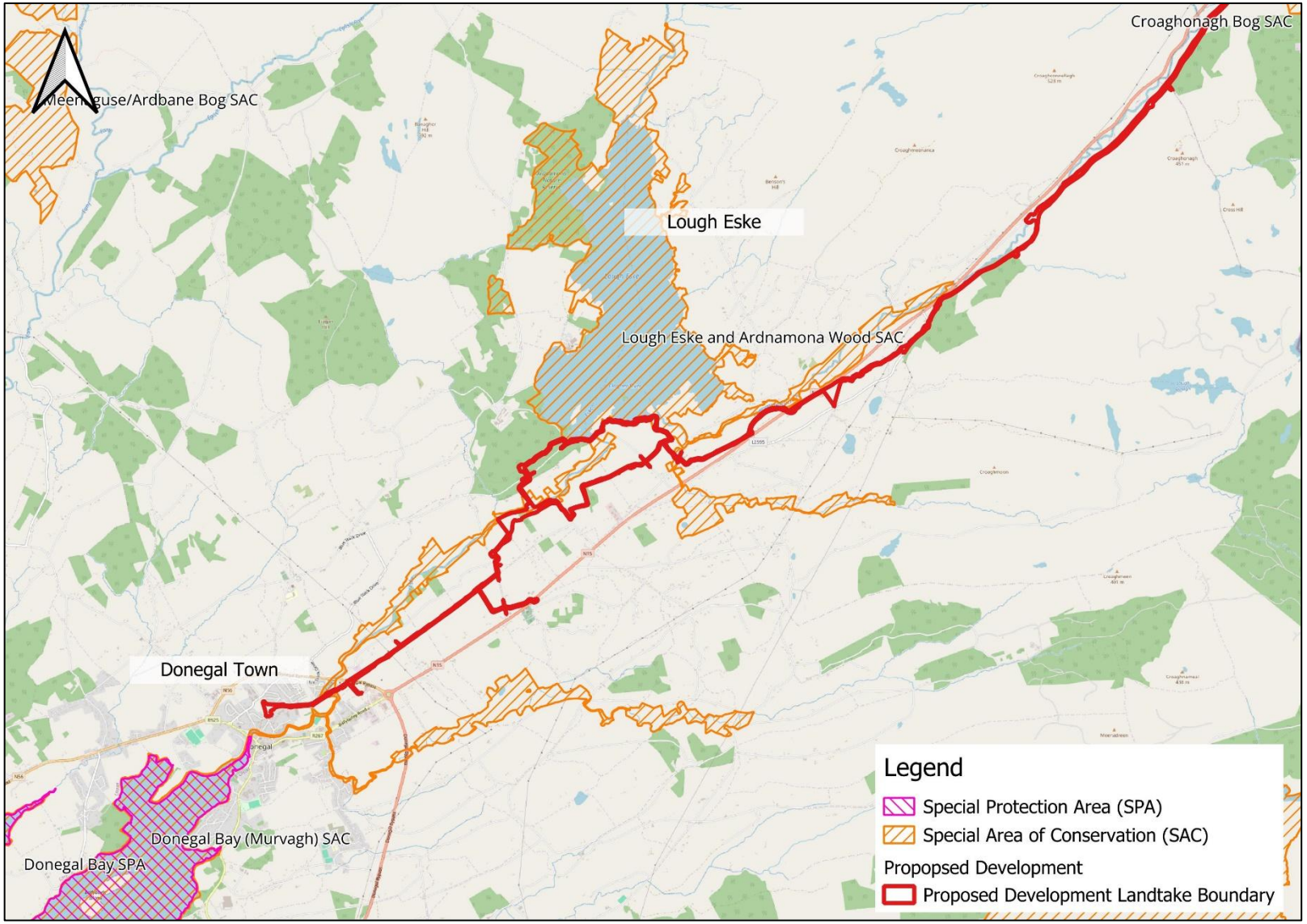

Figure 2-1 - Location of the proposed development relative to European designated sites in the area (Sheet 1 of 2)

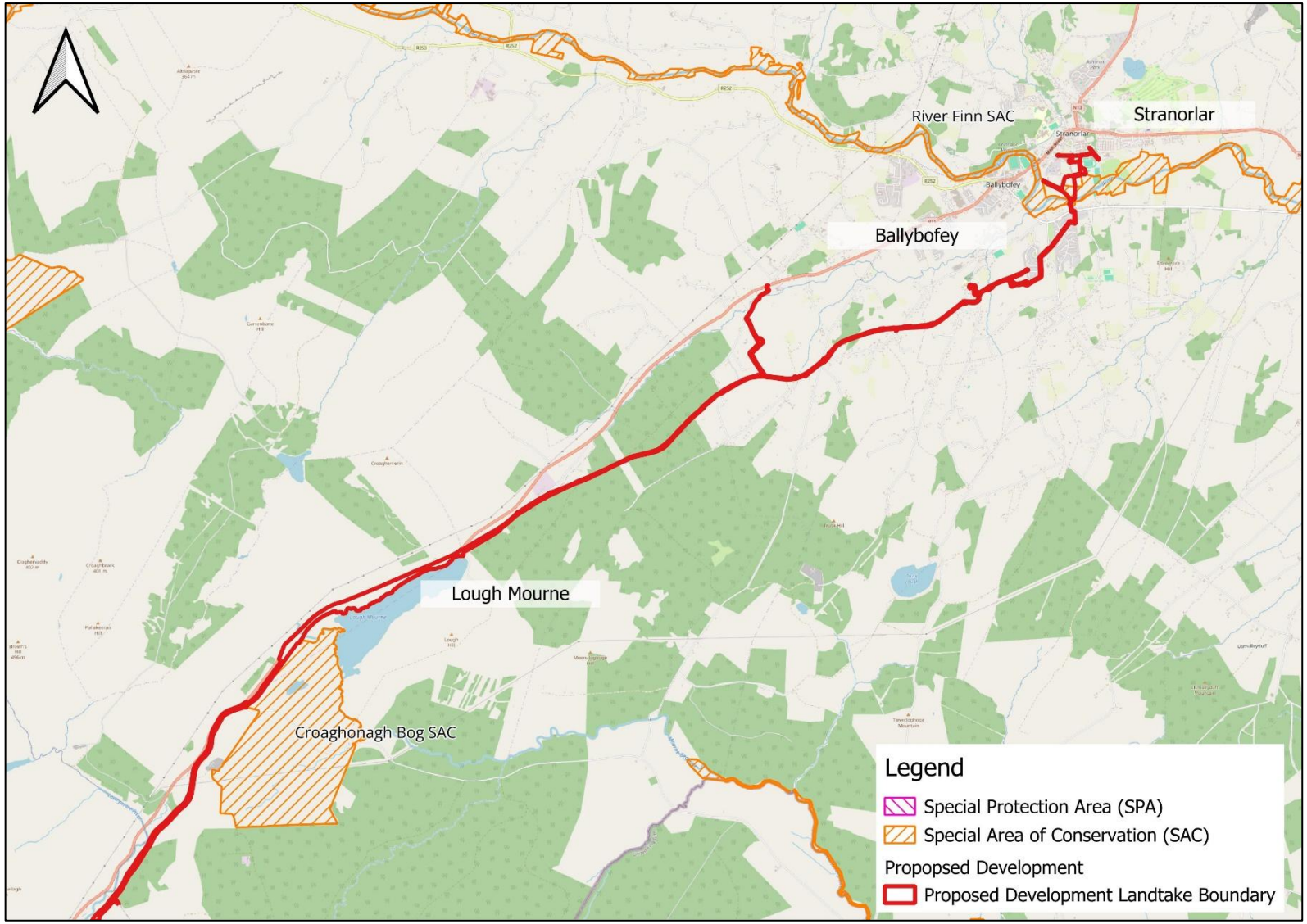

Figure 2-2 - Location of the proposed development relative to European designated sites in the area (Sheet 2 of 2)

2.3 Receiving Natural Environment

2.3.1 General Description and Context

The proposed development is located in County Donegal, commencing from Donegal town through to the twin towns Ballybofey/Stranorlar. The proposed development will run predominantly along the historic West Donegal railway line (undesignated) and through the area known as Barnesmore Gap, a scenic glacial valley located within the 'Bluestack Mountains' forming the main mountain pass between north and south Donegal, joining the settlements of Donegal Town and Ballybofey/Stranorlar.

In some areas, the railway has been subsumed into the surrounding fields, whereas in other areas it is relatively intact, with embankments, treelines, stone walls and fencing marking the original railway boundaries. In many areas, the disused railway line is used for farm access. The proposed greenway leaves Donegal town and follows the River Eske valley through agricultural grassland before splitting, with one section travelling through field on the south side of the River Eske, and the other forming the Lough Eske Loop. The loop will involve the construction of a new clear span bridge across the River Eske before the route travels through Ardnamona Wood. Ardnamona wood is a mixed woodland that includes semi-natural woodland, conifer plantation and felled areas. Parts of it are listed on the NPWS database as 'ancient and long-established woodland', meaning the areas had been woodland continuously since the 19th century. Lough Eske, the River Eske and parts of Ardnamona Wood are designated as the 'Lough Eske and Ardnamona Wood SAC', which is designated for lake and woodland habitats, tufa springs, Salmon, Freshwater Pearl Mussel and Killarney Fern. The route will then cross the River Eske on the existing bridge before rejoining the main route of the greenway.

The route then passes close to St. Francis National School before travelling north-east through the Barnesmore Gap. At this point the area surrounding the route becomes more upland in character with open heath and bog habitats dominating the landscape. The route follows the gap through Croaghonagh Bog on the disused railway line and passes between Lough Mourne and the N15. Croaghonagh Bog is an SAC is designated Blanket Bog. The route then enters an area of conifer plantation, using the disused railway line and forest roads. The landscape then becomes predominantly farmland again, with pockets of immature woodland and scrub. At the point the area becomes more built up as the route enters the outskirts of Ballybofey. The route crosses the River Finn on a new deck which will be fitted to the original railway bridge piers, before terminating in Stranorlar. The River Finn is designated as an SAC designated for lake and peatland habitats, Otter and Salmon.

2.4 Potential Effects on the Natural Environment

A number of elements of the proposed development are considered likely to give rise to environmental and ecological impacts.

Construction Phase

Habitat Loss, Fragmentation and Degradation

Vegetation removal will be required in order to facilitate construction of the proposed development. Natural and semi-natural habitats in the footprint of the proposed development will largely be converted to hardstanding surfaces. Therefore, habitat loss, fragmentation and degradation are likely effects to the natural environment during the construction of the proposed development.

The proposed development will predominantly result in the loss of Improved Agricultural Grassland (GA1), Amenity grassland (GA2) Wet grassland (GS4), Dense bracken (HD1), Scrub (WS1), minor areas of Wet Heath (HH3) and woodland habitats (WD1, WD2, WD4, WN1, WN6). There will also be some loss of Hedgerow (WL1) and Treeline (WL2) habitat

where the proposed development is required to 'punch through' in order traverse field boundaries.

In-stream works associated with the proposed development will be limited to the installation of culverts on minor watercourses and ditches. None of the locations where culverts are proposed have suitable Freshwater Pearl Mussel or Salmon spawning habitat. Any loss of these habitats will be minor and due to their nature, will not lead to the loss of important aquatic habitats.

Disturbance/Displacement

Visual, noise, and vibration disturbance will occur as a result of equipment and machinery use during the construction of the proposed development. These have the potential to affect birds and other wildlife.

Artificial lighting of the construction area also presents the risk of light disturbance for nocturnal species, particularly Otter and fish by fragmentation of commuting/foraging corridors, disruption to circadian rhythms and increased risk of predation.

Water Quality

The proposed development includes 91 structures. Of these, 19 are existing or proposed structures over watercourses, including clear span river crossings, new culverts and existing masonry bridges that require repair.

The construction/upgrade of these structures over watercourse crossings could result in negative effects on water quality as a result of sedimentation and/or the spillage of cementitious materials and pollutants into watercourses through surface water runoff.

Invasive Alien Species

Five species restricted under Regulation 49 of the Habitats Regulations were recorded during the ecological surveys. The movement of material, equipment, machinery and personnel during the construction of the proposed development may result in the spread of these species to and from the proposed development, and downstream to European Sites.

Operational Phase

Disturbance/Displacement

The proposed development primarily runs through rural and agricultural areas with trail heads and links at established urban or tourist areas, such as Donegal Town and Biddy's O'Barnes. However, for much of the length of the proposed development, there will be an increase in human presence from the baseline. There is also potential increase in the presence of dogs along the route of the proposed development. Visual and noise disturbance has the potential to displace mammals, birds and other species from the areas close to the greenway.

The majority of the proposed development will not be lit, however lighting is proposed at the trail heads at Donegal Town, Biddy's O'Barnes and Stranorlar, as well as the lengths of greenway closest to the towns: Ch.0-1050 (Donegal Town) and Ch.27500 – 30050 (Ballybofey / Stranorlar and Sessiaghoneill link).

Lighting will also be provided in underpasses along the route to maintain user safety. It is not anticipated that lighting will be required at minor side road crossings however these will be assessed on an individual basis.

Therefore, the proposed development has the potential to give rise to noise and visual disturbance, as well as artificial lighting disturbance to the surrounding area during the operational phase.

Habitat Degradation

The presence of people and dogs on the greenway could lead to trampling and fouling in habitats off the greenway.

The presence of the greenway and associated drainage infrastructure could lead to impacts on the adjacent habitats. Peatlands are particularly vulnerable to drying out.

Water Quality

Vehicles at the trailheads present a source of pollutants. There is a risk of pollutants entering watercourses which could result in negative effects to aquatic habitats and species and to species which are dependent on these habitats.

The introduction and increase in the numbers of greenway users including people and dogs may lead to an increase in dog fouling and human waste along the proposed development. Responsible dog owners will clean up after their dogs, however, there will be a proportion that does not. Dog faeces contain high levels of nitrogen and phosphorous. Surface runoff from the greenway contaminated with dog faeces could increase nutrient levels and oxygen demand in receiving surface waterbodies, negatively impacting water quality. However, given the buffer zones between the greenway and the watercourses, the environmental degradation that would occur as a result of desiccation, UV radiation and temperature changes, and the dilution capacity of the watercourses, negative effects associated with dog fouling will not occur.

Sustainable Urban Drainage Systems (SuDS) is required for the proposed development to manage surface water runoff. This drainage will largely consist of over the edge drainage along the length of the greenway. However, there are areas, particularly at the trailheads, where there is some potential for water quality impacts to the receiving environment from surface water runoff during the operational phase which could result in pollutants entering watercourses and discharging to European designated sites.

Shading

The proposed development has the potential to cause shading on the River Eske, the Lowerymore River and River Finn due to the presence of new watercourse crossings, or a bridge deck in the case of the River Finn, over the channels. Shading will occur to freshwater habitat primarily under the footprint of the proposed development, but the area will vary at different times of day and year (due to changes in angle and intensity of the sun). Aquatic species, such as Freshwater Pearl Mussel and spawning salmon would be vulnerable to shading impacts.

According to research carried out on the effects of shading to estuarine wetlands from bridges, in order to avoid shading impacts to the water and in-river vegetation, the soffit height:deck width ratio is required to be 0.7 or above (Broome *et al*., 2005). This research informed the National Cycle Network Plan. The new watercourse crossings will be 4m wide. Therefore, the soffits are required to be at least 2.85m high to meet the 0.7 ratio requirement. Any watercourse crossing with a soffit height of less than 2.85m combined with a width of 4m will have potential for shading impacts.

Invasive Alien Species

Five species restricted under Regulation 49 of the Habitats Regulations were found during the ecological surveys. The movement of equipment, machinery and personnel during the construction of the proposed development may result in the spread of these species to and from the proposed development, and downstream to European Sites.

3. Identification of Likely Significant Effects

3.1 Establishing the Zone of Influence

Section 3.2.3 of DEHLG (2010) outlines the procedure for selecting the European Sites to be considered in Appropriate Assessment. It states that European Sites potentially affected should be identified and listed, bearing in mind the potential for direct, indirect and in-combination effects. It also states that the specific approach in each case is likely to differ depending on the scale and likely effects of the plan or project. However, it advises that the following sites should generally be included:

- All European Sites within or immediately adjacent to the plan or project area;
- All European Sites within the Zone of Influence of the plan or project; and,
- In accordance with the Precautionary Principle, all European Sites for which there is doubt as to whether or not they might be significantly affected.

The 'Zone of Influence' of a project is the geographic extent over which significant ecological effects are likely to occur. In the case of projects, the guidance recognises that the Zone of Influence must be established on a case-by-case basis using the Source-Pathway-Receptor Model (OPR, 2021). A project may only lead to significant effects on the integrity of the European Site where all three elements of Source-Pathway-Receptor are linked. In the absence of one element of this model, likely significant effects can be screened out with confidence. The assessment should make reference to the following key variables:

- The nature, size and location of the project;
- The nature of the impacts which may arise from the project;
- The sensitivities of the ecological receptors; and,
- The potential for in-combination effects.

For example, in the case of a project that could affect a watercourse, it may be necessary to include the entire upstream and/or downstream catchment in order to capture all European Sites with water-dependent features of interest.

Having regard to the above key variables, the Zone of Influence was defined as:

- The entire area within 550m of the proposed development for noise and visual disturbance associated with construction and operation of the proposed development
- SPAs within 20km of the proposed development for the potential for ex-situ impacts on wintering birds.
- All waterbodies crossed by the proposed development, upstream and including Lough Eske, the upper reaches of the Lowerymore River and the upper reaches of the River Finn and its tributaries, for aquatic habitats and species dependent on aquatic habitats.
- All watercourses crossed by the proposed development, downstream and including the Inner Donegal Bay Transitional Waterbody and the Foyle and Faughan Estuaries Transitional Waterbody as far as the Foyle Bridge in Derry City, for aquatic habitats and species dependent on aquatic habitats.

This buffer was defined as 550m around the proposed development as beyond this limit, noise and visual disturbance to birds is unlikely to occur (Cutts *et al*., 2013). The watercourses crossed by the proposed development, upstream and downstream and including the Donegal Bay Transitional Waterbody and the Foyle and Faughan Estuaries Transitional Waterbody as far as the Foyle Bridge in Derry City, which is the extent to which hydrological impacts could potentially occur in the watercourses connected to the proposed development.

Non-breeding bird species generally inhabit estuaries, migrating locally between feeding sites, roosts and between estuaries. The movements of these species between these sites is likely to be between sites that are close together (SNH, 2023). Therefore, a 20km buffer for potential ex-situ impacts to wintering bird species was used around the proposed development.

A geographical representation of the Zone of Influence was produced in QGIS 3.40.1 using the proposed development boundary, publicly available basemaps (World Topographic Map base layer (ESRI, 2026)) and Environmental Protection Agency (EPA) shapefiles. This was used in combination with NPWS shapefiles to identify the boundaries of European Sites in relation to the Zone of Influence.

It was established that 15 European Sites occur within the Zone of Influence for the proposed development. Table 3-1 lists these sites and describes how these sites are connected to the proposed development. European Sites and the Zone of Influence are mapped in Figure 3-1. Detailed descriptions of relevant sites are provided in Appendix D.

Table 3-1 - European Sites located within the Zone of Influence

European Site [site code]	Are there potential pathways for effects from the proposed development to this site? Explain.
Special Areas of Conservation	
Donegal Bay (Murvagh) SAC [000133]	**Yes.** The proposed development is located at least 1.5km upstream of this European Site via the River Eske and 369m northwest as the crow flies. Due to the hydrological connection between the proposed development and this European Site, there is a potential pathway for effects to this European Site.
Lough Eske and Ardnamona Wood SAC [000163]	**Yes.** The proposed development is located within the boundary of this European Site and two new watercourse crossings are proposed within this European Site. Due to the overlapping boundaries of the proposed development and this European Site, there is a potential pathway for effects to this European Site.
Croaghonagh Bog SAC [000129]	**Yes.** The proposed development is located immediately adjacent to this European Site. Due to the proximity between the proposed development and this European Site, there is a potential pathway for effects to this European Site.
River Finn SAC [002301]	**Yes.** The proposed development is located within the boundary of this European Site and a new watercourse crossing over the River Finn is proposed. Due to the overlapping boundaries of the proposed development and this European Site, there is a potential pathway for effects to this European Site.
Cloghernagore Bog and Glenveagh National Park SAC [002047]	**Yes.** The proposed development is located at least 21.2km southeast and 30.1km downstream of this European Site. This European Site is designated for terrestrial habitats and species as well as mobile aquatic species that have the potential to use watercourses crossed by the proposed development, including the River Finn. While this nature of the proposed development will not directly affect upstream or terrestrial habitats, mobile species which are Qualifying Interests of this European Site may be present in the vicinity or downstream of the proposed development works. Therefore, there is a potential pathway for effects from the proposed development to this European Site.
Meentygrannagh Bog SAC [000173]	**No.** The proposed development is located at least 16.6km southeast of this European Site. This European Site is designated for terrestrial peatland habitats. The proposed development is located in a different subcatchment to this European Site. Therefore, given the nature of the Qualifying Interests for which this site is designated, there are no pathways for effects from the proposed development to this European Site.
River Foyle and Tributaries SAC [UK0030320]	**Yes.** The proposed development is located at least 18.3 km upstream of this European Site via the River Finn and 14.4km west as the crow flies. Due to the hydrological connection between the proposed development and this European Site, there is a potential pathway for effects to this European Site.

Special Protection Areas	
Donegal Bay SPA [004151]	**Yes.** The proposed development is located at least 367m northeast and 1.5km upstream of this European Site. Due to the hydrological connection via the River Eske between the proposed development and this European Site, there is a potential pathway for effects to this European Site.
Lough Swilly SPA [004075]	**Yes.** The proposed development is located at least 18.1km south of this European Site. This is within the maximum core foraging range for some of the Qualifying Interests for which this site is designated. Therefore, given the distance, there is an ex-situ pathway for effects to this European Site.
Derryveagh and Glendowan Mountains SPA [4039]	**No.** The proposed development is located at least 18.2km southeast of this European Site. This is outside the maximum core foraging range for all of the Qualifying Interests for which this site is designated. Therefore, given the distance, there are no pathways for effects to this European Site.
Lough Nillan Bog SPA [004110]	**Yes.** The proposed development is located at least 10.5km southeast of this European Site. This is within the maximum core foraging range for some of the Qualifying Interests for which this site is designated. Therefore, given the distance, there is an ex-situ pathway for effects to this European Site.
Durnesh Lough SPA [004145]	**No.** The proposed development is located at least 9.5km northeast of this European Site. This is outside the maximum core foraging range for all of the Qualifying Interests for which this site is designated. Therefore, given the distance, there are no pathways for effects to this European Site.
Pettigo Plateau Nature Reserve SPA [004099]	**Yes.** The proposed development is located at least 7.5km northwest of this European Site. This is within the maximum core foraging range for the Qualifying Interests for which this site is designated. Therefore, given the distance, there is an ex-situ pathway for effects to this European Site.
Lough Derg (Donegal) SPA [004057]	**Yes.** The proposed development is located at least 9.2km northwest of this European Site. This is within the foraging ranges for all the Qualifying Interests for which this site is designated. Therefore, given the distance, there is an ex-situ pathway for effects to this European Site.
Pettigo Plateau SPA [UK9020051]	**No.** The proposed development is located at least 14.1km northwest of this European Site. This is outside the maximum core foraging range for the Qualifying Interest for which this site is designated. Therefore, given the distance, there are no pathways for effects to this European Site.

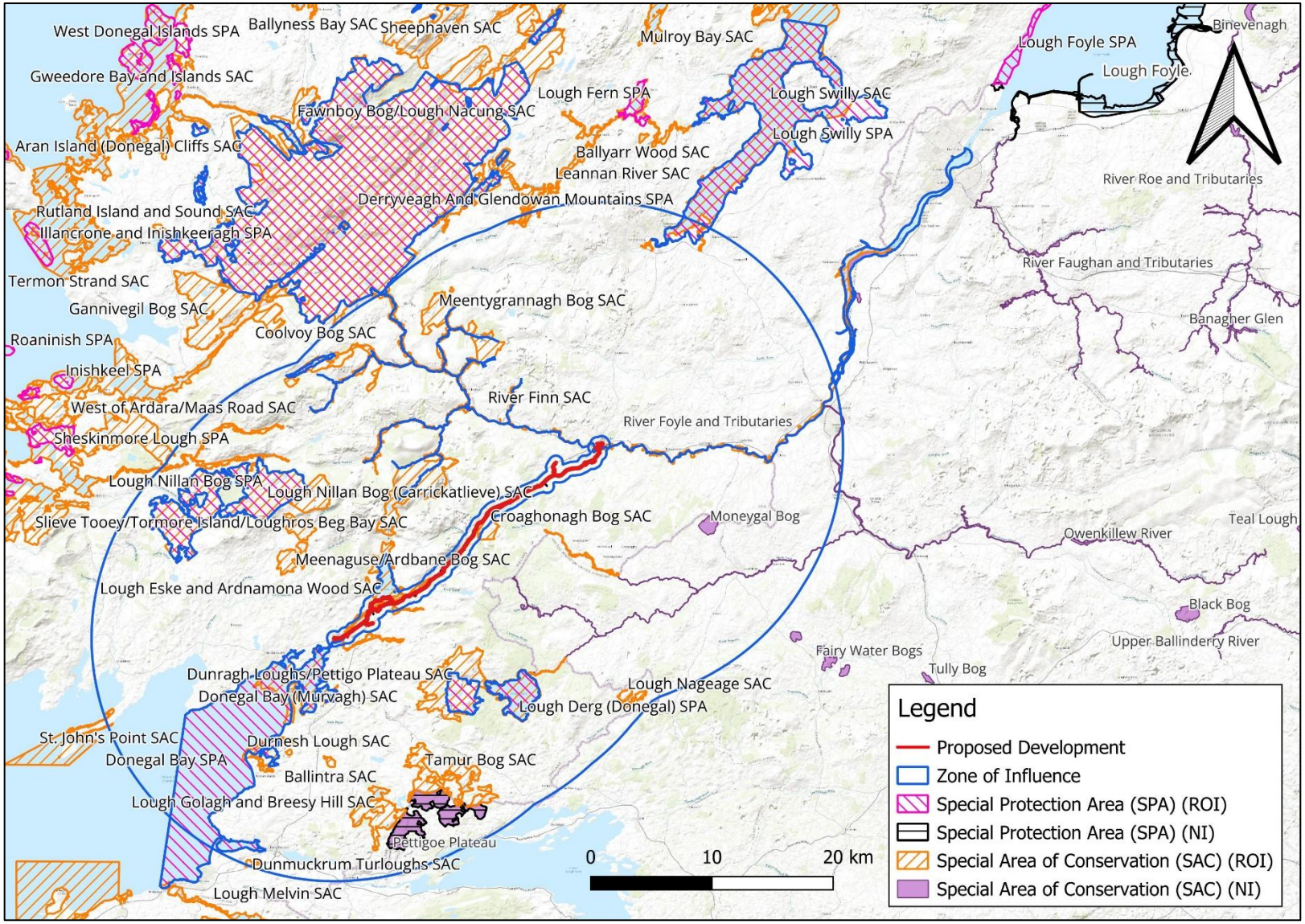

Figure 3-1 - European Sites within the Zone of Influence of the proposed development.

3.2 Site Descriptions

The description of each European designated site where pathways for effects were identified in Table 3-1, are presented in Appendix D.

3.3 Evaluation against Conservation Objectives

Guidance from the European Commission (EC, 2021) explains that "*The description of the site's integrity and the impact assessment should be based on the parameters that determine the Conservation Objectives and that are specific to the habitats and species of the site and their ecological requirements*".

Table 3-2 to Table 3-12 below detail the evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the sites identified in Section 3.1 and described in Section 3.3. As explained in Sections 1.4 and 1.5, AA Screening is carried out in view of the Conservation Objectives of the relevant European Site(s), which are in turn defined by detailed Attributes and corresponding Targets. Therefore, the evaluation of whether or not a likely effect is significant (in view of the Conservation Objective in question) is made with regard to these Attributes and Targets.

Table 3-2 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Donegal Bay (Murvagh) SAC [000133].

Qualifying Interest	Conservation Objective as per NPWS (2026)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Mudflats and sandflats not covered by seawater at low tide [1140]	"*To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Donegal Bay (Murvagh) SAC*"	The Attributes of this Conservation Objective focuses on *"Habitat area*" and *"Community distribution".* This Qualifying Interest occurs in this European Site at least 1.5km downstream of the proposed development. There will be no works undertaken in this habitat and there will be no land-take of this habitat for the purposes of the proposed development. However, the proposed development is considered to pose a risk of pollution to this habitat in the event of sedimentation or spillage of pollutants. Pollution can have toxic effects on the community complexes within the mudflats. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes
Fixed coastal dunes with herbaceous vegetation ('grey dunes') [2130]	*"To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation (grey dunes) in Donegal Bay (Murvagh) SAC"*	The Attributes of these Conservation Objectives focus on "*Habitat area", "Habitat distribution", "Physical structure", "Vegetation structure"* and *"Vegetation composition".* These Qualifying Interests occur in this European Site at least 369m southwest of the proposed development. These are terrestrial habitats and thus have no hydrological connection to the proposed development. There will be no works undertaken in these habitats and there will be no land-take of these habitats for the purposes of the proposed development. There are no pathways for impacts to occur between the proposed development and these Qualifying Interests. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objectives for these Qualifying Interests.**	No
Dunes with *Salix repens* ssp. argentea (*Salicion arenariae*) [2170]	*"To restore the Favourable conservation condition of Dunes with Salix repens ssp. argentea (Salicion arenariae) in Donegal Bay (Murvagh) SAC"*		No
Humid dune slacks [2190]	*"To restore the favourable conservation condition of Humid dune slacks in Donegal Bay (Murvagh) SAC"*		No
Harbour Seal (*Phoca vitulina*) [1365]	"*To maintain the favourable conservation condition of Harbour Seal in Donegal Bay (Murvagh) SAC*"	The Attributes of these Conservation Objectives focus on *"Access to suitable habitat", "Breeding behaviour", "Moulting behaviour", "Resting behaviour"* and *"Disturbance".* In Ireland, Harbour seals occur in estuarine, coastal and fully marine areas and inhabit inshore and offshore waters. This Qualifying Interest has the potential to be present in Donegal Bay during the construction of the proposed development which occurs at least 1.5km upstream of this European Site.	Yes

Qualifying Interest	Conservation Objective as per NPWS (2026)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		Disturbance Resting, moulting and breeding sites for Harbour Seal in Donegal Bay (Murvagh) SAC have been well documented and primarily occur in the estuary adjacent to Murvagh and Laghy, (NPWS, 2010c; Lyons, 2004) approximately 4.2km south of the proposed development. Resting sites have also been recorded in the bay at least 4km from the proposed development site although suitable habitat for this species occurs everywhere within the marine and estuarine environment of this European Site (NPWS, 2026; NPWS, 2011b). There will be no in-stream works in watercourses connected to suitable Harbour Seal habitat, nor will there be any barriers to habitat connectivity as part of the proposed development. The urban centre of Donegal town is located between the proposed development and suitable habitat for Harbour Seal. Noise, visual and vibration disturbance impacts associated with the construction of the proposed development will not exceed the existing noise, visual and vibration impacts associated with the urban environment. Additionally, Harbour Seal are a mobile species, and should any be in the vicinity of the proposed development during construction, they will have the ability to move away as their ecological corridors will not be obstructed. *Water Quality* Changes to water quality via potential pollution, sedimentation and introduction of invasive species that may occur during the construction phase of the proposed development have the potential to indirectly impact the biological communities in the habitats in which this species forages in the Donegal Bay (via an alteration of food webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items, thus forcing this species to move into more suitable areas. Such changes to water quality and potential resultant affects to foraging habits of Harbour Seal has the potential to impact the Attribute 'Disturbance' for the Harbour Seal in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	

Table 3-3 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Lough Eske and Ardnamona Wood SAC [000163].

Qualifying Interest	Conservation Objective as per NPWS (2019)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Oligotrophic waters containing very few minerals [3110]	*"To restore the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) in Lough Eske and Ardnamona Wood SAC"*	The Attributes of this Conservation Objective focuses on "*Habitat area", "Habitat distribution", "Vegetation composition", "Vegetation distribution", "Hydrological regime", "Lake substratum quality", "Water quality", "Acidification status", "Water colour", "Dissolved organic carbon (DOC)", "Turbidity"* and *"Fringing habitat".* This Qualifying Interest occurs in Lough Eske, adjacent to the proposed development. There will be no works undertaken in this habitat and there will be no land-take of this habitat. The proposed development is in close proximity to Lough Eske, which has the potential to introduce pollutants to this habitat if surface water run-off was not managed correctly. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes
Petrifying Springs with tufa formation (Cratoneurion) [7220]	*"To maintain the favourable conservation condition of Petrifying springs with tufa formation (Cratoneurion)* in Lough Eske and Ardnamona Wood SAC"*	The Attributes of this Conservation Objective focuses on "Habitat area", "Habitat distribution", "Hydrological regime", "Water quality", "Vegetation composition" and "Physical structure". Petrifying Springs with tufa formation (Cratoneurion) are lime-rich water sources that deposit tufa, a porous calcareous rock. They rely on permanent irrigation, usually from upwelling groundwater sources or seepage sources. They constitute a highly specialised habitat with a distinctive flora, typically dominated by bryophytes and often containing rare species. Their small extent and their vulnerability are recognised by their designation as a priority habitat in Annex I of the European Union Habitats Directive (92/43/EEC) (Lyons & Kelly, 2016). The Conservation Objectives supporting document states that Petrifying springs with tufa formation (Cratoneurion)* has not been surveyed in detail in this European Site but "*this habitat is known to occur on the north side of the valley of the Lowerymore River, notably at White Goat's Island, where it occurs in semi-open terrain within woodland in an area of the river where waterfalls occur. A second area of petrifying springs with tufa formation was also recorded a short distance further downstream on the same river*". No examples of this habitat were recorded during the habitat surveys. The proposed N15 underpass and associated cutting is located c. 142m from the known location of this habitat as reported in the Conservation Objectives supporting document. The risk to this habitat through potential alterations of the quality and quantity of groundwater was examined with geotechnical engineers and there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: • There will be no construction undertaken within this habitat and there will be no land-take of or alteration of this habitat. • The superficial deposits consist of till derived from metamorphic rocks and blanket peat. This subsoil type, because of its low permeability, will not allow for water to permeate easily through the soil from the construction works to this Qualifying Interest.	No

Qualifying Interest	Conservation Objective as per NPWS (2019)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		• The bedrock geology consists of Lough Eske Psammite Formation, which is characterised as a poor aquifer. This bedrock geology has low permeability. • There are no mapped faults connecting the spring and the area of the underpass. • The subsoil permeability at the location of the underpasses is classified as low. • The natural hydrological movement of the water is such that the Lowerymore River flows from the north in a south-westerly direction and the river acts as a groundwater divide between the construction works and this Qualifying Interest. • Within such a low permeability setting, any dewatering required to construct the underpass is likely to be minimal, and the impacts of which are very unlikely to propagate to the opposite bank of the river. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	*"To maintain the favourable conservation condition of Old sessile oak woods with* Ilex *and* Blechnum *in the British Isles in Lough Eske and Ardnamona Wood SAC"*	The Attributes of this Conservation Objective focuses on "*Habitat area", "Habitat distribution", "Woodland size", "Woodland structure"* and *"Vegetation composition".* This Qualifying Interest has been mapped in this European Site and occurs to the west of Lough Eske (NPWS, 2019). However, as discussed in NPWS (2019), further unsurveyed areas of this habitat may be present within the European Site. Habitat surveys undertaken for the proposed development identified this habitat in areas of dense woodland along the River Eske in proximity to the proposed development. Habitat surveys undertaken for the proposed development determined that Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles occur along the River Eske. However, this habitat does not overlap with the proposed development boundary. The proposed development in this area will be fenced which would prevent people and dogs reaching this habitat, and associated impacts of fouling in these areas. The habitat on the southern side of the River Eske crossing for the proposed development is classified as a treeline, rather than a woodland, due to the sparse and narrow nature of the trees (<4m wide), based on the criteria set out in Fossitt (2000). The habitat on the northern side of the proposed River Eske crossing was classified as Improved Agricultural Grassland (GA1). The Annex I woodland survey and 'Old Sessile Oak Woods with *Ilex* and *Blechnum* in the British Isles' structure and functions assessment criteria was undertaken in accordance with the methodology outlined in the 'National Survey of Native Woodlands 2003-2008' (Perrin *et al*., 2008). Reference was also made to 'Results of monitoring survey of old sessile oak woods and alluvial forests' (O'Neill & Barron, 2013). In accordance with Perrin *et al*., (2008), a 20m x 20m relevé was conducted. Habitat surveys also ruled out the presence of this habitat where the proposed development extends north through Lougheask Demesne. Although Pedunculate Oak (*Q. robur*) was recorded within the relevé, neither *Q. petraea* nor *Q. x rosacea* were present, which are structural requirements for 'Old Sessile Oak Woods with Ilex and Blechnum in the British Isles' based on Perrin *et al*., 2008. As this area of woodland	No

Qualifying Interest	Conservation Objective as per NPWS (2019)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		did not pass the criteria for target tree species, the area of Oak-Birch-Holly (WN1) woodland in this area does not correspond to Old Sessile Oak Woods with *Ilex* and *Blechnum* in the British Isles [91A0]. The data recorded in the relevé is presented in Appendix C. There will be no reduction in habitat area, decline of habitat distribution, reduction in woodland size, decline in woodland structure or decline in vegetation composition of this habitat as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objective for this Qualifying Interest.**	
Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]	*"To restore the favourable conservation condition of Freshwater Pearl Mussel (*Margaritifera margaritifera*) in Lough Eske and Ardnamona Wood SAC"*	The Attributes of this Conservation Objective focuses on *"Distribution"*, "*Population size", "Population structure", "Suitable habitat", "Water quality", "Substratum quality", "Hydrological regime", "Host fish"* and *"Fringing habitat".* *Construction Phase* This Qualifying Interest occurs in large sections of the River Eske, at the location of the proposed River Eske crossing and, in the freshwater stretches downstream as far as Donegal town. This hydrological connection provides a pathway for sediment laden runoff and other pollutants to be transported to this European Site during the construction of the proposed development, thereby negatively affecting Freshwater Pearl Mussel. No evidence of Freshwater Pearl Mussel was recorded in this European Site other than in certain sections of the River Eske. *Operational Phase* All watercourse crossings for the proposed development will be clear-span structures. The placement of a new bridge over the River Eske has the potential to introduce shading into the river. While shading is not a defined Conservation Objective, Moorkens (2000) stated in their assessment of Freshwater Pearl Mussel water quality requirements, that optimal mussel sites were exposed and where trees were present, they did not shade the mussels. Due to the potential for regular shading over the River Eske in known Freshwater Pearl Mussel locations, there is potential for negative impacts to this Qualifying Interest during the operational phase. The hydrological connection provides a pathway for pollutants to be transported to this European Site during the operation of the proposed development. This includes dog fouling which can lead to negative impacts on water quality. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes
Atlantic Salmon (*Salmo salar*) [1106]	*"To restore the favourable conservation condition of Atlantic Salmon (*Salmo salar*)*	The Attributes of this Conservation Objective focuses on *"Distribution", "Adult spawning fish", "Salmon fry abundance", "Out-migrating smolt abundance", "Number and distribution of redds"* and *"Water quality".* Spawning habitat for this Qualifying Interest occurs in suitable habitat throughout this European Site. There are known Salmon redds in the gravel at the location of the existing Lough Eske Bridge. All	Yes

Qualifying Interest	Conservation Objective as per NPWS (2019)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
	in Lough Eske and Ardnamona Wood SAC"	watercourse crossings for the proposed development will be clear-span structure so there is no potential for removal of Salmon spawning habitat as a result of the proposed development. However, the hydrological connection provides a pathway for sediment laden runoff and other pollutants to be transported to this European Site during the construction and operation of the proposed development, thereby negatively affecting Salmon. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	
Killarney Fern (*Vandenboschia speciosa*) [1421]	*"To maintain the favourable conservation condition of Killarney Fern (*Vandenboschia speciosa*) in Lough Eske and Ardnamona Wood SAC*	The Attributes of this Conservation Objective focuses on *"Distribution", "Number of populations", "Number of colonies", "Population", "Population size", "Population structure", "Habitat extent", "Hydrological conditions", "Light levels", "Woodland canopy" and "Invasive species".* Killarney Fern is a highly specialised species, occurring in dripping caves, cliffs, crevices and gullies by waterfalls, crevices in woodland, and occasionally, the sporophytes occur on the floor of damp woodland – all deeply shaded humid habitats (Ratcliffe *et al*., 1993; Rumsey, 1994; Johnson *et al*., 2000; Kingston & Hayes, 2005; Ní Dhúill, 2014). No suitable habitat for this species was recorded within 50m of the proposed development. The new bridge over the River Eske, which is within the SAC, is at a location where there is no woodland cover on the riverbanks. At the proposed River Eske bridge, the greenway will be fenced off which prevent people and dogs accessing any areas of habitat outside the greenway. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objectives for these Qualifying Interests.**	No

Table 3-4 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Croaghonagh Bog SAC [000129].

Qualifying Interest	Conservation Objective as per NPWS (2017a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Blanket Bogs (* if active bog) [7130]	*"To restore the favourable conservation condition of Blanket bogs (* if active bog) in Croaghonagh Bog SAC*	The Attributes of this Conservation Objective focuses on "*Habitat area", "Habitat distribution", "Ecosystem function", "Community diversity", "Vegetation compositions", "Vegetation structure", "Physical structure"* and *"Indicators of local importance".* *Construction Phase* The proposed development route is located along the abandoned railway line adjacent to the boundary of this European Site. The proposed development does not provide for any reduction in the permanent area of this habitat within this European Site. However, the route runs adjacent to the boundary of this European Site. Considering the proximity of the proposed development to this European Site and the groundwater-dependent nature of the habitat, there is potential for accidental pollution events during the construction phase to result in water quality impacts to this European Site. *Operational Phase* Scheme drainage elements associated with the proposed development, such as filter drains to keep the proposed development surface free from surface water, have the potential to alter natural groundwater levels and flows in adjacent Groundwater Dependent Terrestrial Ecosystems (GWDTEs). During a site visit undertaken in May 2026, the edge of the bog immediately adjacent to the proposed development and up to 40m from the edge inwards were observed to be friable and in a dry condition. A series of machine cut surface drains were observed within the up to 40m section, which appeared dry and not hydraulically active at the time of the visit. A series of gravel-lined open road drainage channels were observed at each of the four corners of the road bridge to drain the road of surface water. The historic railway line at this location was observed to contain silt and surface water. The source of surface water in this area is unclear; however, it seems more likely that the source is the road drainage channels rather than the bog, based on site observations. In accordance with DN-GEO-03047 and DN-GEO-03022 (TII, 2024; TII 2025), filter drains are proposed along the greenway at this location to maintain a surface free from runoff. These will outfall to watercourses west of Lough Mourne. To avoid impacts on this European Site, and to avoid establishing a hydraulic gradient towards the drains from the bog during the operational phase, the filter drains between Ch. 17250 - 18200 will be positioned on the far side of the greenway surface to the bog, be no deeper than 1.5m and be wrapped in an impermeable membrane. This is to allow for surface water runoff during only and not subsurface drainage or seepage from the bog. Therefore, there will be no likely significant effects on groundwater levels or flows to this Qualifying Interest as a result of the proposed development. **Therefore, likely significant effects on this Qualifying Interest as a result of the construction of the proposed development cannot be ruled out at this stage.**	Yes

Table 3-5 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the River Finn SAC [002301].

Qualifying Interest	Conservation Objective as per NPWS (2017b)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	*"To restore the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) in River Finn SAC"*	The Attributes of this Conservation Objective focuses on "*Habitat area", "Habitat distribution", "Typical Species", "Vegetation composition", "Vegetation distribution", "Hydrological regime", "Lake substratum quality", "Water quality", "Acidification status", "Water colour", "Dissolved organic carbon (DOC)", "Turbidity"* and *"Fringing habitat"*. This Qualifying Interest occurs exclusively in lakes. The lakes which are designated for this habitat in this European Site include Lough Finn, Lough Shivnagh, Lough Cronloughan, Lough Belshade, Loughinisland, Lough Gulladuff and Lough Derg, all of which occur upstream of the proposed development. There is no hydrological connection from the proposed development to this habitat in this European Site. Therefore, there is no pathway for effects to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objectives for these Qualifying Interests.**	No
Northern Atlantic wet heaths with *Erica tetralix* [4010]	*"To restore the favourable conservation condition of Northern Atlantic wet heaths with Erica tetralix in River Finn SAC"*	The Attributes of this Conservation Objective focuses on "*Habitat area", "Habitat distribution", "Ecosystem function", "Community diversity", "Vegetation composition", "Vegetation structure", "Physical structure"* and *"Indicators of local distinctiveness"*. These are upland, terrestrial habitats. These habitats were not recorded within this European Site during the ecological surveys undertaken for the proposed development. There is no hydrological or functional connection from the proposed development to these habitats in this European Site. There will be no works undertaken in these habitats and there will be no land-take of these habitats for the purposes of the proposed development. Therefore, there is no pathway for effects to these Qualifying Interests as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objectives for these Qualifying Interests.**	No
Blanket Bogs (* if active bog) [7130]	*"To restore the favourable conservation condition of Blanket bogs (* if active bog) in River Finn SAC"*		No
Transition mires and quaking bogs [7140]	*"To restore the favourable conservation condition of Transition mires and quaking bogs in the River Finn SAC"*		No
Atlantic Salmon (*Salmo salar*) [1106]	*"To maintain the favourable conservation condition of Atlantic Salmon in River Finn SAC"*	The Attributes of this Conservation Objective focuses on *"Distribution", "Adult spawning fish", "Salmon fry abundance", "Out-migrating smolt abundance", "Number and distribution of redds"* and *"Water quality"*. This Qualifying Interest occurs in the River Finn. The proposed development will require the construction of a new bridge deck across the River Finn, using existing piers. This hydrological connection provides a pathway for sediment laden runoff and other pollutants to be transported to this European Site during the construction of the proposed development, thereby negatively affecting this Qualifying Interest.	Yes

Qualifying Interest	Conservation Objective as per NPWS (2017b)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.	
Otter (*Lutra lutra*) [1355]	*"To maintain the favourable conservation condition of Otter in River Finn SAC"*	The Attributes of this Conservation Objective focuses on *"Distribution", "Extent of terrestrial habitat", "Extent of freshwater habitat", "Couching sites and holts", "Fish biomass available"* and *"Barriers to connectivity".* The ecological surveys undertaken for the proposed development recorded evidence of otter approximately 131m downstream of the proposed River Finn watercourse crossing. No otter holts or couching sites were recorded within 150m upstream or downstream of the proposed River Finn watercourse crossing during the ecological surveys. Visual, noise and vibration impacts during the construction of the proposed development may cause disturbance to otter, and may exclude them from otherwise suitable foraging, commuting, and resting habitat in the River Finn. Changes to water quality via potential pollution and sedimentation that may occur during the construction phase of the proposed development have the potential to indirectly impact Otter via the biological communities in the habitats in which this species forages in the River Finn (e.g. due to alteration of food webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items. Such changes to water quality and potential resultant effects to foraging habits of Otter has the potential to impact the Attributes 'Distribution' and 'Fish biomass available' for the Otter in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes

Table 3-6 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Cloghernagore Bog and Glenveagh National Park SAC [002047]

Qualifying Interest	Conservation Objective as per NPWS (2017c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	*"To maintain the favourable conservation condition of Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focus on "*Habitat area", "Habitat distribution", "Typical Species", "Vegetation composition", "Vegetation distribution", "Hydrological regime", "Lake substratum quality", "Water quality", "Acidification status", "Water colour", "Dissolved organic carbon (DOC)", "Turbidity"* and *"Fringing habitat".* This Qualifying Interest occurs exclusively in lakes. The lakes which are designated for this habitat in this European Site include Lough Barra, Lough Veagh, Lough Altan, Lough Glentornan, Lough Muck, Lough Nambradden, Lough Inshagh and others within this European Site, all of which occur upstream of the proposed development. There is no hydrological connection from the proposed development to this habitat in this European Site. Therefore, there is no pathway for impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objective for this Qualifying Interest.**	No
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	*"To maintain the favourable conservation condition of Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focus on: *Habitat area", "Habitat distribution", "Hydrological regime", "Substratum composition", "Water quality", "Vegetation composition", "Floodplain connectivity"* and *"Fringing habitat".* This habitat occurs in a wide variety of rivers throughout Ireland but occurs in this European Site at least 30.1km upstream of the proposed development via the River Finn. As this habitat occurs upstream of the proposed development, there is no pathway for sediment laden runoff and other pollutants to be transported to this European Site during the construction of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objective for this Qualifying Interest.**	No
Northern Atlantic wet heaths with *Erica tetralix* [4010]	*"To restore the favourable conservation condition of Northern Atlantic wet heaths with* Erica tetralix *in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of these Conservation Objectives focus on "*Habitat area", "Habitat distribution", "Ecosystem function", "Community diversity", "Vegetation composition", "Vegetation structure", "Physical structure"* and *"Indicators of local distinctiveness".* This European Site is located at least 21.2km northwest of the proposed development site. These are upland terrestrial habitats. There is no hydrological or functional connection from the proposed development to these habitats in this European Site. There will be no works undertaken in these habitats and there will be no land-take	No

Qualifying Interest	Conservation Objective as per NPWS (2017c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
European dry heaths [4030]	*"To restore the favourable conservation condition of European dry heaths in Cloghernagore Bog and Glenveagh National Park SAC"*	of these habitats for the purposes of the proposed development. Therefore, there is no pathway for impacts to these Qualifying Interests as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objectives for these Qualifying Interests.**	No
Alpine and Boreal heaths [4060]	*"To restore the favourable conservation condition of Alpine and Boreal heaths in Cloghernagore Bog and Glenveagh National Park SAC"*		No
Blanket Bogs (* if active bog) [7130]	*"To restore the favourable conservation condition of Blanket bogs (* if active bog) in Cloghernagore Bog and Glenveagh National Park SAC"*		No
Depressions on peat substrates of the *Rhynchosporion* [7150]	*"To restore the favourable conservation condition of Depressions on peat substrates of the Rhynchosporion in Cloghernagore Bog and Glenveagh National Park SAC"*		No
***Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]**	*"To maintain the favourable conservation condition of Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focuses on "*Habitat area", "Habitat distribution", "Ecosystem function", "Community diversity", "Vegetation composition", "Vegetation structure"* and *"Physical structure".* This European Site is located at least 21.2km northwest of the proposed development site. This is an exclusively terrestrial habitat. There is no hydrological or functional connection from the proposed development to this habitat in this European Site. There will be no works undertaken in this habitat and there will be no land-take of this habitat for the purposes of the proposed development. Therefore, there is no pathway for impacts to this Qualifying Interest as a result of the proposed development.	No

Qualifying Interest	Conservation Objective as per NPWS (2017c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objective for this Qualifying Interest.	
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	*"To restore the favourable conservation condition of Old sessile oak woods with Ilex and Blechnumin the British Isles in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focus on "*Habitat area", "Habitat distribution", "Woodland size", "Woodland structure"* and *"Vegetation composition".* This European Site is located at least 21.2km northwest of the proposed development site. This is an exclusively terrestrial habitat. There is no hydrological or functional connection from the proposed development to this habitat in this European Site. There will be no works undertaken in this habitat and there will be no land-take of this habitat for the purposes of the proposed development. Therefore, there is no pathway for impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objective for this Qualifying Interest.**	No
Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029]	*"To restore the favourable conservation condition of Freshwater Pearl Mussel in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focus on *"Distribution"*, "*Population size", "Population structure", "Suitable habitat", "Water quality", "Substratum quality", "Hydrological regime", "Host fish"* and *"Fringing habitat".* This European Site includes the upper reaches of the River Finn. The River Finn SAC is not designated for Freshwater Pearl Mussel; however, this SAC is. Freshwater Pearl Mussel have not been recorded in the River Finn in recent years, and they are considered to be extinct in the River Finn (Reid *et al*., 2013). The river had elevated levels of suspended sediment at the time of the survey and visual survey could not be undertaken, however previous surveys undertaken in 2017 and 2020 at the location of the crossing point did not record any mussels (EcoFact, 2024). **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development does not have the potential to significantly affect this European Site in view of its Conservation Objective for this Qualifying Interest.**	No
Atlantic Salmon (*Salmo salar*) [1106]	*"To maintain the favourable conservation condition of Atlantic Salmon in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focus on *"Distribution", "Adult spawning fish", "Salmon fry abundance", "Out-migrating smolt abundance", "Number and distribution of redds"* and *"Water quality".* This European Site is located at least 30.1km upstream of the proposed development via the River Finn. This Qualifying Interest is a mobile aquatic species that has the potential to be present in the River Finn in proximity to the proposed development. The proposed development will require the construction of a new bridge deck across the River Finn on the existing piers. While there are no instream works in the River Finn proposed as part of the proposed development, this hydrological connection provides a pathway for sediment laden runoff and other pollutants to the River Finn. As a migratory species, Salmon could pass underneath the proposed development to spawning grounds in this European Site.	Yes

Qualifying Interest	Conservation Objective as per NPWS (2017c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.	
Otter (*Lutra lutra*) [1355]	*"To maintain the favourable conservation condition of Otter in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focus on *"Distribution", "Extent of terrestrial habitat", "Extent of freshwater habitat", "Couching sites and holts", "Fish biomass available"* and *"Barriers to connectivity".* This European Site is located at least 30.1km upstream of the proposed development via the River Finn. This Qualifying Interest is a mobile species that has the potential to be present in the River Finn in proximity to the proposed development. Otter can have territories of up to 19km (O'Neill *et al*., 2009), and therefore the populations of the Otter at the proposed development and in this European Site are functionally connected. The ecological surveys undertaken for the proposed development recorded evidence of Otter approximately 131m downstream of the proposed River Finn watercourse crossing. No Otter holts were recorded within 150m upstream or downstream of the proposed River Finn watercourse crossing during the ecological surveys. Visual, noise and vibration impacts during the construction of the proposed development may cause disturbance to Otter, and may exclude them from otherwise suitable foraging, commuting, resting habitat in the River Finn which may affect the distribution of this species within this European Site. Changes to water quality via potential pollution and sedimentation that may occur during the construction phase of the proposed development have the potential to indirectly impact Otter via the biological communities in the habitats in which this species forages in the River Finn (e.g. due to alteration of food webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items. Such changes to water quality and potential resultant effects to foraging habits of Otter have the potential to impact the Attributes 'Distribution' and 'Fish biomass available' for the Otter in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes
Killarney Fern (*Vandenboschia speciosa*) [6985]	*"To maintain the favourable conservation condition of Killarney Fern in Cloghernagore Bog and Glenveagh National Park SAC"*	The Attributes of this Conservation Objective focus on *"Distribution", "Populations", "Colonies", "Population", "Population size", "Population structure", "Habitat extent", "Hydrological conditions", "Light levels", "Woodland canopy" and "Invasive species".* Killarney Fern is a highly specialised species, occurring in dripping caves, cliffs, crevices and gullies by waterfalls, crevices in woodland, and occasionally, the sporophytes occur on the floor of damp woodland – all deeply shaded humid habitats (Ratcliffe *et al*., 1993; Rumsey, 1994; Johnson *et al*., 2000; Kingston & Hayes, 2005; Ní Dhúill, 2014). This European Site is located at least 21.2km northwest of the proposed development site. This is an exclusively terrestrial species and there is no landtake planned within this European Site for the purposes of the proposed development. There is no pathway for impact from the proposed development to this Qualifying Interest. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not adversely affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No

Table 3-7 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the River Foyle and Tributaries SAC [UK0030320].

Qualifying Interest	Conservation Objective as per NIEA (2024)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Atlantic salmon (*Salmo salar*) [1106]	*"To maintain or restore (where appropriate) the favourable conservation condition of Atlantic Salmon (Salmo salar) in the River Foyle and Tributaries SAC"*	The Attributes of this Conservation Objective focuses on: *"Spatial extent", "Population density - juveniles", "Population density: adult run size", "Water quality: Organic pollution, reactive phosphorus, acidification, other pollutants*", "*Flow*", "*Habitat structure: In-channel structures and morphology*", *Other attributes: Fine sediment and suspended solids*", *"Other attributes: Alien/locally non-native species*", "*Other attributes: Stocking/transfers of Atlantic Salmon*", "*Other attributes: Stocking/transfers of other species*", "*Other attributes*: *Abstraction intakes and discharges*", "*Other attributes: Exploitation*", and "*Other attribute: Weed-cutting*". This European Site occurs approximately 18.3km downstream of the proposed development via the River Finn at Clady. This Qualifying Interest is a migratory species moving from marine to freshwater habitats and has the potential to occur outside the boundary of this European Site. Therefore, ex-situ impacts are considered to exist. The proposed development includes the construction of a new bridge deck on existing piers over the River Finn in Ballybofey/Stranorlar. While there will be no instream works as part of this watercourse crossing, the hydrological connection provides a pathway for sediment laden runoff and other pollutants to be transported to this European Site during the construction of the proposed development, thereby negatively affecting this Qualifying Interest. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes
Otter (*Lutra lutra*) [1355]	*"To maintain or restore (where appropriate) the favourable conservation condition of Otter (Lutra lutra) in the River Foyle and Tributaries SAC"*	The Attributes of this Conservation Objective focuses on: *"Presence of otters*", "*Bankside/waterside cover*", *Water quality*", *"Food sources",* "*Disturbance*", "*Flow rate*", and "*Site integrity*". This European Site occurs approximately 18.3km downstream of the proposed development via the River Finn at Clady. This Qualifying Interest is a mobile species, maintaining territories along rivers, streams and lakes of up to 19km (O'Neill *et al*., 2009). This Qualifying Interest has the potential to occur in proximity to the proposed development outside the boundary of this European Site and therefore, ex-situ impacts are considered to exist. The proposed development includes the construction of a new bridge deck on existing piers over the River Finn in Ballybofey/Stranorlar. While the construction does not provide for any in-stream works, visual, noise and vibration impacts during the construction of the proposed development, as well as visual and noise impacts during the operation phase, may cause disturbance to otter outside the boundary of this European Site, and may exclude them from otherwise suitable habitat. Changes to water quality via potential pollution and sedimentation that may occur during the construction phase of the proposed development have the potential to indirectly impact Otter via the biological communities in the habitats in which this species forages in the River Finn (e.g. due to alteration of food	Yes

Qualifying Interest	Conservation Objective as per NIEA (2024)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items. Such changes to water quality and potential resultant effects have the potential to impact foraging habits of Otter in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	
Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]	*"To maintain or restore (where appropriate) the favourable conservation condition of Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation in the River Foyle and Tributaries SAC".*	The Attributes of this Conservation Objective focuses on: *"Water quantity*", "*Water quality*", "*Habitat structure*", "*Fine sediment*", "*Negative indicators*", "*Biological assemblages*", "*Indicators of local distinctiveness*", and *"Direct human disturbance*". This habitat occurs in a wide variety of rivers throughout Ireland but occurs in this European Site at least 18.3km downstream of the proposed development via the River Finn at Clady. The hydrological connection provides a pathway for sediment laden runoff and other pollutants to be transported to this European Site during the construction of the proposed development, thereby negatively affecting this Qualifying Interest. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes

Table 3-8 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Donegal Bay SPA [004151].

Qualifying Interest	Conservation Objective as per NPWS (2012c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Great Northern Diver (*Gavia immer*) [A003]	*"To maintain the favourable conservation condition of Great Northern Diver in Donegal Bay SPA"*	The Attributes of this Conservation Objective focuses on *"Population Trend" and* "*Distribution".* Great Northern Diver are primarily found along coastal habitats and estuaries. This species occurs exclusively as an overwintering species in Ireland. Donegal Bay supports an internationally important wintering population of Great Northern Diver and is one of the top sites in Ireland for this species (NPWS, 2010d). During the wintering bird surveys undertaken for the proposed development, a peak count of two individuals was recorded in Inner Donegal Bay approximately 679m southwest of the proposed development in January 2025. Suitable habitat for this species at least 367m southwest and 1.5km downstream of the proposed development. There will be no works undertaken within this European Site, and there will be no land-take of suitable habitat for this species for the purposes of the proposed development. *Disturbance* The proposed development is located 367m northeast of this European Site, separated by the urban centre of Donegal town. The maximum disturbance distance for this Qualifying Interest is 350m (Goodship & Furness, 2022). Given the distance and the existing urban environment, there will be no disturbance impacts to this Qualifying Interest as a result of the proposed development. *Water Quality* Changes to water quality via potential pollution that may occur during the construction phase of the proposed development have the potential to indirectly impact this Qualifying Interest via the biological communities in the habitats in which this species forages in (e.g. due to alteration of food webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items. Such changes to water quality and potential resultant affects to foraging habits of Great Northern Diver has the potential to impact the Attribute 'Distribution' for this Qualifying Interest in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes
Common Scoter (*Melanitta nigra*) [A065]	*"To maintain the favourable conservation condition of Common Scoter in Donegal Bay SPA"*	The Attributes of this Conservation Objective focuses on *"Population Trend" and* "*Distribution".* Common Scoter are typically found in coastal and offshore areas of Ireland. Donegal Bay supports a nationally important population of wintering Common Scoter (NPWS, 2010d). This species was not recorded during the wintering bird surveys undertaken for the proposed development. Suitable habitat for this species occurs at least 367m southwest and 1.5km downstream of the proposed development. There will be no works undertaken within this European Site, and there will be no land-take of suitable habitat for this species for the purposes of the proposed development.	Yes

Qualifying Interest	Conservation Objective as per NPWS (2012c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		<u>*Disturbance*</u> The proposed development is located 367m northeast of this European Site, separated by the urban centre of Donegal town. Given the distance and the existing urban environment which separates suitable habitat for this Qualifying Interest from the proposed development, there will be no disturbance impacts to this Qualifying Interest as a result of the proposed development. <u>*Water Quality*</u> Changes to water quality via potential pollution that may occur during the construction phase of the proposed development have the potential to indirectly impact this Qualifying Interest via the biological communities in the habitats in which this species forages in (e.g. due to alteration of food webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items. Such changes to water quality and potential resultant affects to foraging habits of Common Scoter has the potential to impact the Attribute 'Distribution' for this Qualifying Interest in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	
Sanderling (*Calidris alba*) [A144]	*"To maintain the favourable conservation condition of Sanderling in Donegal Bay SPA"*	The Attributes of this Conservation Objective focuses on *"Population Trend" and* "*Distribution".* Sanderling are primarily found along sandy coastlines and are not often found in estuarine locations. Donegal Bay supports a nationally important wintering population of Sanderling. This species was not recorded during the wintering bird surveys undertaken for the proposed development. Suitable habitat for this species occurs at least 367m southwest and 1.5km downstream of the proposed development. There will be no works undertaken within this European Site, and there will be no land-take of suitable habitat for this species for the purposes of the proposed development. <u>*Disturbance*</u> The proposed development is located 367m northeast of this European Site, separated by the urban centre of Donegal town. Given the distance and the existing urban environment which separates suitable habitat for this Qualifying Interest from the proposed development, there will be no disturbance impacts to this Qualifying Interest as a result of the proposed development. <u>*Water Quality*</u> Changes to water quality via potential pollution that may occur during the construction phase of the proposed development have the potential to indirectly impact this Qualifying Interest via the biological communities in the habitats in which this species forages in (e.g. due to alteration of food webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items. Such changes to water quality and potential resultant affects to foraging habits of Sanderling has the potential to impact the Attribute 'Distribution' for this Qualifying Interest in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes

Qualifying Interest	Conservation Objective as per NPWS (2012c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	*"To maintain the favourable conservation condition of Light-bellied Brent Goose in Donegal Bay SPA"*	The Attributes of this Conservation Objectives focus on *"Population Trend" and* "*Distribution".* Light-bellied Brent Goose are primarily found along coastal estuaries during the winter but can also be found on grasslands prior to their departure for breeding grounds in the late Spring (BWI, 2025). . This species occurs exclusively as an overwintering species in Ireland. Donegal Bay supports an internationally important wintering population of Light-bellied Brent Goose (NPWS, 2010d). During the wintering bird surveys undertaken for the proposed development, a peak count of twenty-two individuals were recorded in Inner Donegal Bay approximately 657m southwest of the proposed development in February 2024. Suitable habitat for this species at least 367m southwest and 1.5km downstream of the proposed development. There will be no works undertaken within this European Site, and there will be no land-take of suitable habitat for this species for the purposes of the proposed development. *Disturbance* The proposed development is located 367m northeast of this European Site, separated by the urban centre of Donegal town. The maximum disturbance distance for this Qualifying Interest is 200m (Goodship & Furness, 2022). Given the distance and existing urban environment, there will be no disturbance impacts to this Qualifying Interest as a result of the proposed development. The wintering bird surveys undertaken for the proposed development did not record this species outside of the SPA itself and the typical habitat for this species was not present along the route of the proposed development. Therefore, there is no risk of ex-situ disturbance. *Water Quality* Changes to water quality via potential pollution that may occur during the construction phase of the proposed development have the potential to indirectly impact this Qualifying Interest via the biological communities in the habitats in which this species forages in (e.g. due to alteration of food webs, quantity of primary producers, nutrient cycles etc.), thereby potentially reducing the quality or quantity of prey items. Such changes to water quality and potential resultant affects to foraging habits of Light-bellied Brent Goose has the potential to impact the Attribute 'Distribution' for this Qualifying Interest in this European Site. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes
Wetlands and Waterbirds [A999]	*"To maintain the favourable conservation condition of the wetland habitat in Donegal Bay SPA as a resource for the regularly-occurring migratory waterbirds that utilise it."*	The Conservation Objective for Wetlands is defined by a single Attribute, namely "*Habitat area*", the Target for which is "*The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 10,461ha, other than that occurring from natural patterns of variation*". As described above in relation to the other Qualifying Interests, the proposed development has the potential to negatively affect water quality in this European Site, therefore it could lead to a reduction in the area of habitat available as a resource for regularly occurring migratory waterbirds. **Therefore, likely significant effects on this Qualifying Interest as a result of the proposed development cannot be ruled out at this stage.**	Yes

Table 3-9 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Lough Swilly SPA [004075].

Qualifying Interest	Conservation Objective as per NPWS (2011a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Whooper Swan (*Cygnus cygnus*) [A038]	*"To maintain the favourable conservation condition of Whooper Swan in Lough Swilly SPA"*	The Attributes of this Conservation Objective focuses on *"Population Trend" and* "*Distribution".* Whooper Swan are primarily found wintering in Ireland on lowland open farmland around inland wetlands, regularly seen while feeding on grasslands and stubble (BWI, 2025). The proposed development is located 18.1km south of this European Site, separated by the urban centres of Letterkenny and Ballybofey/Stranorlar, conifer plantations, agricultural fields and upland habitats. The disturbance distance for Whooper Swan is 200-600m (Goodship & Furness, 2022) and their core foraging range is less than 5km (SNH, 2016). During the wintering bird surveys undertaken for the proposed development, a peak count of five individuals was recorded on Lough Eske at least 391m north of the proposed development in December 2023. Considering this species was recorded during ecological surveys for the proposed development, there is potential for impacts to this species. However, there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: *Disturbance* Whooper Swan exhibit strong fidelity to roosting and feeding sites. This European Site supports internationally important numbers of Whooper Swan and provides extensive feeding, safe resting and roosting areas. The combination of different suitable habitats for a variety of species makes it one of the most important wetlands in the north-west of Ireland for wintering waterfowl (NPWS, 2014b). The surveys undertaken for the proposed development included 2.5 seasons of wintering bird surveys. No areas were recorded as being important for populations of Whooper Swan. Given the results of the wintering bird surveys undertaken for the proposed development, the considerable distance outside their core foraging range, the limited availability of suitable habitat in proximity to the proposed development and the widespread availability of more suitable habitat within this European Site, there is no risk of ex-situ effects through disturbance. *Water Quality* The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No
Greenland White-fronted Goose (*Anser albifrons*	*"To maintain the favourable conservation condition of Greenland White-fronted*	The Attributes of this Conservation Objective focuses on *"Population Trend" and* "*Distribution".* The proposed development is located 18.1km south of this European Site. The disturbance distance for Greenland White-fronted Goose is 500-1000m (Goodship & Furness, 2022) and their core foraging range is 5-8km (SNH, 2016). This species was not recorded during any of the wintering bird surveys undertaken	No

Qualifying Interest	Conservation Objective as per NPWS (2011a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
***flavirostris*)** **[A395]**	*Goose in Lough Swilly SPA"*	for the proposed development. Therefore, there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: *Disturbance* This European Site supports internationally important numbers of Greenland White-fronted Goose and provides extensive feeding, safe resting and roosting areas. The combination of different suitable habitats for a variety of species makes it one of the most important wetlands in the north-west of Ireland for wintering waterfowl (NPWS, 2014b). Given the considerable distance outside its core foraging range, the results of the wintering bird surveys undertaken for the proposed development, the limited availability of suitable habitat in proximity to the proposed development and the widespread availability of more suitable habitat within this European Site, there is no risk of ex-situ effects through disturbance. *Water Quality* The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	
Greylag Goose (*Anser anser*) [A043]	*"To maintain the favourable conservation condition of Greylag Goose in Lough Swilly SPA"*	The Attributes of this Conservation Objective focuses on *"Population Trend" and* "*Distribution".* Greylag Goose are primarily found wintering in Ireland on at coastal sites. Their foraging habitat is primarily estuaries, where they feed on roots of rushes and sedges although there are increasing numbers of Greylag Geese switching to feed on cereal stubble and grassland in their wintering grounds (BWI, 2025). The proposed development is located 18.1km south of this European Site. The disturbance distance for Greylag Goose is 200-600m (Goodship & Furness, 2022) and their core foraging range is 15-20km (SNH, 2016). This species was not recorded during any of the wintering bird surveys undertaken for the proposed development. There is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: *Disturbance* This European Site supports internationally important numbers of Greylag Goose and provides extensive feeding, safe resting and roosting areas. The combination of different suitable habitats for a variety of species makes it one of the most important wetlands in the north-west of Ireland for wintering waterfowl (NPWS, 2014b). The surveys undertaken for the proposed development included 2.5 seasons of wintering bird surveys. No Greylag Goose was recorded during these surveys. Given the results of the wintering bird surveys undertaken for the proposed development, the limited availability of suitable habitat in proximity to the proposed development and the widespread availability of more suitable habitat within this European Site, there is no risk of ex-situ effects through disturbance.	No

Qualifying Interest	Conservation Objective as per NPWS (2011a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		<u>*Water Quality*</u> The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	
Great Crested Grebe (*Podiceps cristatus*) [A005]	*"To maintain the favourable conservation condition of Great Crested Grebe in Lough Swilly SPA"*	The Attributes of these Conservation Objectives focus on *"Population Trend" and* "*Distribution".* These species are typically found in coastal habitats, estuaries and offshore areas in Ireland. The proposed development is located 18.1km south of this European Site. Therefore, there is considered to be no risk of likely significant effects on these Qualifying Interests for the following reasons: <u>*Disturbance*</u> This European Site supports nationally important numbers of these Qualifying Interests and provides extensive feeding, safe resting and roosting areas. The combination of different suitable habitats for a variety of species makes it one of the most important wetlands in the north-west of Ireland for wintering waterfowl (NPWS, 2014b). There is no risk of disturbance to these species arising from the proposed development due to 1) these species were either not recorded or recorded in very small numbers during the wintering bird surveys carried out for the proposed development and 2) there is limited availability of suitable habitat in proximity to the proposed development and the widespread availability of more suitable habitat close to this European Site. <u>*Water Quality*</u> The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to these Qualifying Interests as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No
Grey Heron (*Ardea cinerea*) [A028]	*"To maintain the favourable conservation condition of Grey Heron in Lough Swilly SPA"*		No
Shelduck (*Tadorna tadorna*) [A048]	*"To maintain the favourable conservation condition of Shelduck in Lough Swilly SPA"*		No
Teal (*Anas crecca*) [A052]	*"To maintain the favourable conservation condition of Teal in Lough Swilly SPA"*		No
Mallard (*Anas platyrhynchos*) [A053]	*"To maintain the favourable conservation condition of Mallard in Lough Swilly SPA"*		No
Scaup (*Aythya marila*) [A062]	*"To maintain the favourable conservation condition of Scaup in Lough Swilly SPA"*		No
Goldeneye (*Bucephala clangula*) [A067]	*"To maintain the favourable conservation condition of Goldeneye in Lough Swilly SPA"*		No

Qualifying Interest	Conservation Objective as per NPWS (2011a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Red-breasted Merganser (*Mergus serrator*) [A069]	*"To maintain the favourable conservation condition of Red-breasted Merganser in Lough Swilly SPA"*	**[As above]**	No
Coot (*Fulica atra*) [A125]	*"To maintain the favourable conservation condition of Coot in Lough Swilly SPA"*		No
Oystercatcher (*Haematopus ostralegus*) [A130]	*"To maintain the favourable conservation condition of Oystercatcher in Lough Swilly SPA"*		No
Knot (*Calidris canutus*) [A143]	*"To maintain the favourable conservation condition of Knot in Lough Swilly SPA"*		No
Wigeon (*Mareca penelope*) [A855]	*"To maintain the favourable conservation condition of Wigeon in Lough Swilly SPA"*		No
Shoveler (*Spatula clypeata*) [A857]	*"To maintain the favourable conservation condition of Shoveler in Lough Swilly SPA"*		No
Dunlin (*Calidris alpina*) [A149]	*"To maintain the favourable conservation condition of Dunlin in Lough Swilly SPA"*		No
Curlew (*Numenius arquata*) [A160]	*"To maintain the favourable conservation condition of Curlew in Lough Swilly SPA"*		No
Redshank (*Tringa totanus*) [A162]	*"To maintain the favourable conservation condition of*		No

Qualifying Interest	Conservation Objective as per NPWS (2011a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
	Redshank in Lough Swilly SPA"		
Greenshank (*Tringa nebularia*) [A164]	*"To maintain the favourable conservation condition of Greenshank in Lough Swilly SPA"*		No
Common Gull (*Larus canus*) [A182]	*"To maintain the favourable conservation condition of Common Gull in Lough Swilly SPA"*		No
Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	*"To maintain the favourable conservation condition of Black-headed Gull in Lough Swilly SPA"*	The Attributes of this Conservation Objective focuses on *"Breeding population abundance", "Productivity rate" and "Distribution".* This Qualifying Interest is a resident species along all Irish coasts. They are known to breed in small numbers on islands of major lakes (BWI, 2025). The proposed development is located 18.1km south of this European Site. The foraging distance for this Qualifying Interest during the breeding season has been recorded as 18.5km (Gorke & Brandl, 1986). They are known to forage on insects, particularly in arable fields but will also exploit domestic and fisheries waste (BWI, 2025). As this Qualifying Interest is only designated for its breeding population at this European Site, there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: *Disturbance* This European Site supports nationally important numbers of this Qualifying Interest and provides extensive feeding, safe resting and nesting areas. The combination of different suitable habitats for a variety of species makes it one of the most important wetlands in the north-west of Ireland for wintering waterfowl (NPWS, 2014b). Given the limited availability of suitable habitat in proximity to the proposed development and the widespread availability of more suitable habitat much closer to this European Site, there is no risk of ex-situ effects through disturbance. *Water Quality* The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to these Qualifying Interests as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No

Qualifying Interest	Conservation Objective as per NPWS (2011a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Common Tern (*Sterna hirundo*) [A193]	*"To maintain the favourable conservation condition of Common Tern in Lough Swilly SPA"*	The Attributes of these Conservation Objectives focus on *"Breeding population abundance", "Productivity rate" and "Distribution".* These Qualifying Interests are summer visitors to Ireland, found breeding mainly on the coast. The proposed development is located 18.1km south of this European Site. The disturbance distances for Common Tern and Sandwich Tern is at least 100m and >200m, respectively (Goodship & Furness, 2022), and their foraging ranges are typically 20-30km and >30km, respectively (ECON, 2014). They forage on fish primarily in open coastal waters. Therefore, there is considered to be no risk of likely significant effects on these Qualifying Interests for the following reasons: *Disturbance* This European Site supports nationally important numbers of these Qualifying Interests and provides extensive feeding, safe resting and nesting areas. The combination of different suitable habitats for a variety of species makes it one of the most important wetlands in the north-west of Ireland for wintering waterfowl (NPWS, 2014b). Given the limited availability of suitable habitat in proximity to the proposed development and the widespread availability of more suitable habitat within this European Site, there is no foreseeable disturbance impacts to this species as a result of the proposed development due to the low-likelihood of their travelling from this European Site to the vicinity of the proposed development. In the unlikely event that the Qualifying Interests for this European Site are within disturbance distance of the proposed development during either the construction or operational phases, they will have the availability to move away from the area as their ecological passages will not be obstructed. *Water Quality* The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to these Qualifying Interests as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No
Sandwich Tern (*Thalasseus sandvicensis*) [A863]	*"To maintain the favourable conservation condition of Sandwich Tern in Lough Swilly SPA"*		No
Wetlands and Waterbirds [A999]	*"To maintain the favourable conservation condition of the wetland habitat in Lough Swilly SPA as a resource for the regularly-occurring migratory waterbirds that utilise it."*	The Conservation Objective for Wetlands and Waterbirds is defined by a single Attribute, namely "Habitat area", the Target for which is "The *permanent area occupied by the wetland habitat is stable and not significantly less than the areas of 4,162, 2,419, 201 and 317 hectares for subtidal, intertidal, supratidal and lagoon (and associated) habitats respectively, other than that occurring from natural patterns of variation".* The proposed development does not provide for any reduction in the permanent area of wetland habitat within this European Site and has no potential to delay or interrupt the achievement of this Conservation Objective. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No

Table 3-10 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Lough Nillan Bog SPA

Qualifying Interest	Conservation Objective as per NPWS (2025c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Merlin (*Falco columbarius*) [A098]	*"To maintain the Favourable conservation condition of Merlin in Lough Nillan Bog SPA"*	The Attributes of this Conservation Objective focuses on "*Population size", "Productivity rate", "Distribution", "Extent and condition of suitable open habitats for foraging" and "Disturbance to breeding sites"* The proposed development is located 10.5km southeast of this European Site. The disturbance distance for Merlin during the breeding season is 300-500m (Goodship & Furness, 2022) and their core foraging range during the breeding season is <5km (SNH, 2016). This species was recorded as a singular individual flying overhead during the breeding raptor surveys undertaken for the proposed development. No evidence of breeding was recorded during any of the surveys for this species. Therefore, there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: *Disturbance* This European Site supports nationally important numbers of this Qualifying Interest and provides valuable foraging habitat for up to 5 pairs of Merlin known to have territories in the vicinity of this European Site (NPWS, 2010b). Given the considerable distance to the proposed development outside its core foraging range and the availability of more suitable habitat in proximity to this European Site, there is no foreseeable disturbance impacts to this species as a result of the proposed development. *Water Quality* The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No
Golden Plover (*Pluvialis apricaria*) [A140]	*"To restore the Favourable conservation condition of Golden Plover in Lough Nillan Bog SPA"*	The Attributes of this Conservation Objective focus on *"Breeding population trend", "Productivity rate", "Distribution of breeding habitat", "Extent and condition of breeding habitat", "Disturbance at breeding site", "Barriers to connectivity and site use"* and *"Forage spatial distribution, extent and abundance"* The proposed development is located 10.5km southeast of this European Site. The disturbance distance for Golden Plover during the breeding season is 200-500m (Goodship & Furness, 2022) and their core foraging range during the breeding season is 3km with a maximum range of 11km (SNH, 2016). This species was not recorded during	No

Qualifying Interest	Conservation Objective as per NPWS (2025c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		any of the breeding bird surveys undertaken for the proposed development. Therefore, there no risk of adverse effects on this Qualifying Interest for the following reasons: <u>*Disturbance*</u> This European Site supports nationally important numbers of this Qualifying Interest (NPWS, 2010b). Given the considerable distance to the proposed development outside its core foraging range and the availability of more suitable habitat in proximity to this European Site, there is no foreseeable disturbance impacts to this species as a result of the proposed development. <u>*Water Quality*</u> The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	
Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	*"To restore the Favourable conservation condition of Greenland White-fronted Goose in Lough Nillan Bog SPA"*	The Attributes of this Conservation Objective focuses on "*Winter population trend", "Winter spatial distribution", "Disturbance at wintering site", "Barriers to connectivity and site use", "Forage spatial distribution, extent and abundance", "Roost spatial distribution and extent" and "Supporting habitat: area and quality".* The proposed development is located 10.5km southeast of this European Site. The disturbance distance for Greenland White-fronted Goose is 500-1000m (Goodship & Furness, 2022) and their core foraging range is 5-8km (SNH, 2016). This species was not recorded during any of the wintering bird surveys undertaken for the proposed development. Therefore, there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: <u>*Disturbance*</u> Whilst the size of the Greenland White-fronted Goose flock has declined in this European Site, it is still of significance as it is one of the few traditional bog sites in the region that is still used by this Qualifying Interest (NPWS, 2010b). Given the considerable distance to the proposed development outside its core foraging range, the limited availability of suitable habitat in proximity to the proposed development and the availability of more suitable habitat within this European Site, there is no foreseeable disturbance impacts to this species as a result of the proposed development due to the low-likelihood of their presence in the vicinity of the proposed development. In the unlikely event that any individuals are within disturbance distance of the proposed development during either the	No

Qualifying Interest	Conservation Objective as per NPWS (2025c)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
		construction or operational phases, they will have the availability to move away from the area as their ecological passages will not be obstructed. <u>*Water Quality*</u> The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	
Dunlin (*Calidris alpina schinzii*) [A466]	*"To restore the Favourable conservation condition of Dunlin in Lough Nillan Bog SPA"*	The Attributes of this Conservation Objective focuses on "*Breeding population trend", "Productivity rate", "Distribution of breeding habitat", "Extent and condition of breeding habitat", "Disturbance at breeding site", "Barriers to connectivity and site use" and "Forage spatial distribution, extent and abundance"* The proposed development is located 10.5km southeast of this European Site. The disturbance distance for Dunlin during the breeding season is 100-200m (Goodship & Furness, 2022) and their core foraging range during the breeding season is 500m with a maximum range of 3km (SNH, 2016). This species was not recorded during any of the breeding bird surveys undertaken for the proposed development. Therefore, there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: <u>*Disturbance*</u> Given the considerable distance to the proposed development outside its core foraging range and the availability of more suitable habitat in proximity to this European Site, there is no foreseeable disturbance impacts to this species as a result of the proposed development. <u>*Water Quality*</u> The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No

Table 3-11 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Pettigo Plateau Nature Reserve SPA

Qualifying Interest	Conservation Objective as per NPWS (2025b)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	*"To restore the Favourable conservation condition of Greenland White-fronted Goose in Pettigo Plateau Nature Reserve SPA"*	The Attributes of this Conservation Objective focuses on "*Winter population trend", "Winter spatial distribution", "Disturbance at wintering site", "Barriers to connectivity and site use", "Forage spatial distribution, extent and abundance", "Roost spatial distribution and extent" and "Supporting habitat: area and quality".* The proposed development is located 7.5km northwest of this European Site. The disturbance distance for Greenland White-fronted Goose is 500-1000m (Goodship & Furness, 2022) and their core foraging range is 5-8km (SNH, 2016). This species was not recorded during any of the wintering bird surveys undertaken for the proposed development. Therefore, there is considered to be no risk of likely significant effects on this Qualifying Interest for the following reasons: *Disturbance* Whilst the size of the Greenland White-fronted Goose flock has declined in this European Site (NPWS, 2025g), it is still of significance as it is one of the few places where this species continues to utilise peatland habitats in lieu of coastal grassland sites (NPWS, 2012b). The surveys undertaken for the proposed development included 2.5 seasons of wintering bird surveys. No Greenland White-fronted Goose was recorded during these surveys. Given the nature of the proposed development adjacent to the N15, the fact that this species was not recorded during the surveys, and the availability of more suitable habitat closer to this European Site, there is no risk of effects through disturbance. *Water Quality* The proposed development is located within different catchments to this European Site. There is no hydrological connection from the proposed development to this European Site. Therefore, there is no pathway for water quality impacts to this Qualifying Interest as a result of the proposed development. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for this Qualifying Interest.**	No

Table 3-12 - Evaluation of the likely effects of the proposed development in view of the Conservation Objectives of the Lough Derg (Donegal) SPA

Qualifying Interest	Conservation Objective as per NPWS (2025a)	Does the proposed development provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?	Likely Significant Effect
Lesser Black-backed Gull (Larus fuscus) [A183]	*"To restore the Favourable conservation condition of Lesser Black-backed Gull in Lough Derg (Donegal) SPA"*	The Attributes of these Conservation Objectives focus on "*Breeding population size*", "*Productivity rate*", "*Distribution: extent of available nesting options within the SPA*", "*Forage spatial distribution, extent and abundance*", "*Disturbance at breeding site*", "*Disturbance at areas ecologically connected to the colony*" and "B*arriers to connectivity*" The proposed development is located 9.2km northwest of this European Site. The mean foraging radius for Lesser Black-backed Gull and Herring Gull is 43.3km and 14.9km, respectively with much larger maximum foraging radii (Woodward *et al*., 2024). No evidence of breeding was recorded for these species during any of the surveys undertaken for the proposed development. However, Gull species commonly occur in urban and suburban areas, ponds and wetlands, towns, parks, and agricultural areas and have been recorded in the vicinity of the proposed development. *Disturbance* This European Site supports nationally important numbers of these Qualifying Interests and hosts the largest colony in Ireland for Lesser Black-backed Gull (NPWS, 2012a). These colonies are located at least 9.2km from the proposed development site. Gulls are widespread in environs of Donegal town as well as suburban areas, towns, parks and agricultural areas in the vicinity of the proposed development. These species are accustomed to disturbance and the proposed development will not have any effect of these species. *Water Quality* The proposed development is upstream of areas where these species occur during the breeding season, particularly in Donegal Bay. The proposed development has the potential to negatively affect water quality in watercourses leading to Donegal Bay. However, considering the distance between Donegal Bay (>9km), the likelihood of these species being present in significant numbers during the nesting season is small. Furthermore, these species are not sensitive to the changes in water quality that could occur as a result of the proposed development, particularly in the context of the size of Donegal Bay. Even if water quality impacts were to occur at a level which made the area unsuitable for these species, there is widespread alternative habitat for these species to feed. **Therefore, it can be concluded beyond reasonable scientific doubt that the proposed development will not significantly affect this European Site in view of its Conservation Objectives for these Qualifying Interests.**	No
Herring Gull (Larus argentatus) [A184]	*"To restore the Favourable conservation condition of Herring Gull in Lough Derg (Donegal) SPA"*		No

3.4 Summary of Likely Significant Effects

In Section 3.1, it was established that 15 European Sites, namely the Donegal Bay (Murvagh) SAC, the Lough Eske and Ardnamona Wood SAC, the Croaghonagh Bog SAC, the River Finn SAC, the Cloghernagore Bog and Glenveagh National Park SAC, the Meentygrannagh Bog SAC, the River Foyle and Tributaries SAC, the Donegal Bay SPA, the Lough Swilly SPA, the Derryveagh and Glendowan Mountains SPA, the Lough Nillan Bog SPA, the Durnesh Lough SPA, the Pettigo Plateau Nature Reserve SPA, the Lough Derg (Donegal) SPA and the Pettigo Plateau SPA occur within the Zone of Influence of the proposed development, and that there are pathways for impacts between the proposed development and eleven of these European Sites. There are no pathways for impacts between the proposed development and any other European Sites.

In Section 3.3, it was established, in light of the best scientific knowledge, that the proposed development will give rise to ecological impacts which would constitute likely significant effects on seven of these European Sites, in view of the site's Conservation Objectives. A summary of the Qualifying Interests in the European Site likely to be affected is provided in Table 3-13.

Table 3-13 - Summary of the European Sites and their Qualifying Interests likely to be affected as a result of the proposed development.

European Site	Qualifying Interest
Donegal Bay (Murvagh) SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Harbour Seal (*Phoca vitulina*) [1365]
Lough Eske and Ardnamona Wood SAC	Oligotrophic waters containing very few minerals [3110] Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029] Atlantic Salmon (*Salmo salar*) [1106]
Croaghonagh Bog SAC	Blanket Bogs (* if active bog) [7130]
River Finn SAC	Atlantic Salmon (*Salmo salar*) [1106] Otter (*Lutra lutra*) [1355]
Cloghernagore Bog and Glenveagh National Park SAC	Atlantic Salmon (*Salmo salar*) [1106] Otter (*Lutra lutra*) [1355]
River Foyle and Tributaries SAC	Atlantic Salmon (*Salmo salar*) [1106] Otter (*Lutra lutra*) [1355] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]
Donegal Bay SPA	Great Northern Diver (*Gavia immer*) [A003] Common Scoter (*Melanitta nigra*) [A065] Sanderling (*Calidris alba*) [A144] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]

4. In-combination Effects

Article 6(3) of the Habitats Directive requires that AA be carried out in respect of any plan or project which is likely to have a significant effect on one or more European Sites, "*either individually or in combination with other plans or projects*". Therefore, regardless of whether or not the likely effects of a plan or project are significant when considered in isolation, the potential for the plan or project to significantly affect European Sites in combination with other past, present or foreseeable future plans or projects must also be assessed.

In the case of the proposed development, this AA Screening Report has found that the proposed development, individually, is likely to have significant effects on seven European Sites. Therefore, the assessment of the proposed development must proceed to Stage 2 (AA). The in-combination assessment of likely significant effects on these European Sites arising from the proposed development, in combination with other plans or projects, should be undertaken at that stage.

5. Conclusion

In accordance with Article 6(3) of the Habitats Directive, Regulations 42 of the Habitats Regulations, the Planning and Development Acts, the relevant case law, established best practice and the Precautionary Principle; this AA Screening Report has examined the details of the proposed development and the relevant European Sites and has concluded, on the basis of objective information, that the proposed development, either individually or in combination with other plans or projects, has the potential to give rise to impacts which would constitute likely significant effects on the Donegal Bay (Murvagh) SAC, the Lough Eske and Ardnamona Wood SAC, the Croaghonagh Bog SAC, the River Finn SAC, the Cloghernagore Bog and Glenveagh National Park SAC, the River Foyle and Tributaries SAC, and the Donegal Bay SPA in view of their Conservation Objectives.

In light of this conclusion, it is recommended, that the Competent Authority, Donegal County Council, conclude that the proposed development, either individually or in combination with other plans and projects, is likely to have a significant effect on the Donegal Bay (Murvagh) SAC, the Lough Eske and Ardnamona Wood SAC, the Croaghonagh Bog SAC, the River Finn SAC, the Cloghernagore Bog and Glenveagh National Park SAC, the River Foyle and Tributaries SAC, and the Donegal Bay SPA in view of the Conservation Objectives of those sites and should determine that AA is required in respect of the proposed development.

6. References

AtkinsRéalis (2025) *Barnesmore Gap Greenway – Freshwater Pearl Mussel Survey Report.* September 2025.

Bibby, C.J., Burgess, N.D. & Hill, D.A. 1992. Bird Census Techniques. Academic Press, London.

BTO (2011) *Bird Atlas 2007 – 2011*. British Trust for Ornithology, The Nunnery, Thetford, Norfolk, United Kingdom.

BTO (2023) Wader Hub: Breeding Wader Survey Guidance. <https://www.bto.org/sites/default/files/wader-hub-breeding-wader-survey-guidance-2023-08-16.pdfn> British Trust for Ornithology, The Nunnery, Thetford, Norfolk, United Kingdom.

BWI (2025) *Species Profiles* https://birdwatchireland.ie/birds/> [Accessed: November 2025].

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Official Journal of the European Communities, L206/7.

Cutts, N., Hemingway, K., & Spencer, J. (2013). *Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects*. Institute of Estuarine & Coastal Studies (IECS) University of Hull.

DEHLG (2010) *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*. Department of the Environment, Heritage and Local Government, Dublin.

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the Birds Directive). Official Journal of the European Union, L20/7.

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000e stablishing a framework for the Community action in the field of water policy (Water Framework Directive). Official Journal of the European Union, L32/7.

DOT (2018) *Strategy for the Future Development of National and Regional Greenways.* Department of Transport, Dublin.

EC (2021) *Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Environment Directorate-General of the European Commission.

EC (2018) *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*. European Commission, Brussels.

EC (2013) *Interpretation Manual of European Union Habitats - EUR28.* European Commission, Brussels.

EC (2007) *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence*. Opinion of the European Commission.

Eco Advocacy v. An Bord Pleanála [2023] C-721/21

Ecofact (2024) *Barnesmore Gap Greenway: Freshwater Pearl Mussel Desk Study*. December 2024.

ECON (2014) Literature review of tern (Sterna & Sternula spp.) foraging ecology. ECON Ecological Consultancy Ltd, Norfolk. Report prepared on behalf of Joint Nature Conservation Committee, Aberdeen, United Kingdom.

Eionet (2018) *Population status and trends at the EU and Member State levels: 2013 - 2018*. Article 17 Assessments. <http://bd.eionet.europa.eu/article17/> [Accessed: August 2023]. European Topic Centre on Biological Diversity.

EPA (2025) *Unified GIS Application* <https://gis.epa.ie/EPAMaps/> [Accessed September 2025]. Environmental Protection Agency, Wexford.

ESRI (2026) World Topographic Basemap < https://services.arcgisonline.com/ArcGIS/rest/services/World_Topo_Map/MapServer/tile/{z}/{y}/{x}>

European Communities (Birds and Natural Habitats) Regulations, 2011. SI No. 477/2011.

European Communities (Birds and Natural Habitats) (Amendment) Regulations, 2013. SI No. 499/2013.

European Communities (Birds and Natural Habitats) (Amendment) Regulations, 2015. SI No. 355/2015.

Fossitt, J. (2000) *A Guide to Habitats in Ireland*. The Heritage Council, Kilkenny.

Gilbert, G., Gibbons, D.W., Evans, J., (1998) *Bird Monitoring Methods: A Manual of Techniques for UK Key Species*. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.

Goodship, N.M., Furness, R.W. (MacArthur Green) (2022) *Disturbance Distances Review: AN Updated Literature Review of Disturbance Distances of Selected Bird Species*. NaturScot Research Report 1283.

Gorke, M., Brandl, R. (1986). How to live in colonies: spatial foraging strategies of the black-headed gull. Oecologia, 70 (2): 288-290.

Heffernan ML. & Hunt, J. (2022) *Breeding Status of Common Scoter in Ireland, 2020.* Irish Wildlife Manuals, No. 136 National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland .

I-WeBS (2025) Irish Wetland Bird Survey.

Johnson, G.N., Rumsey, F.J., Headley, A.D. & Sheffield, E. (2000) *Adaptations to extreme low light in the fern* Trichomanes speciosum. New Phytologist 148, 423–431.

Kelly v. An Bord Pleanála [2014] IEHC 422.

Kingston, N. & Hayes, C. (2005) *The ecology and conservation of the gametophyte generation of the Killarney Fern* (Trichomanes speciosum Willd.) *in Ireland*. Biology and Environment: Proceedings of the Royal Irish Academy 105B (2), 71–79.

Landelikje Vereniging tot Behoud van de Waddenzee, Nederlandse vereniging tot Vesherming van Vogels v. Staatssecretaris van Landbouw, Naturbeheer en Visserij (Waddenzee) [2004] C-127/02 ECR I-7405.

Lyons, M.D. & Kelly, D.L. (2016) Monitoring guidelines for the assessment of petrifying springs in Ireland. Irish Wildlife Manuals, No. 94. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Ireland. 19140972.

Lyons D. O. (2004) *Summary of National Parks & Wildlife Service surveys for common (harbour) seals (*Phoca vitulina*) and grey seals (*Halichoerus grypus*), 1978 to 2003.* Irish Wildlife Manuals, No. 13. National Parks & Wildlife Service, Department of Environment, Heritage and Local Government. Dublin, Ireland

Moorkens, E.A. (2000) *Conservation Management of the Freshwater Pearl Mussel* Margaritifera margaritifera. *Part 2: Water Quality Requirements*. Irish Wildlife Manuals, No. 9. Dúchas, The Heritage Service, Departments of Arts, Heritage, Gaeltacht and the Islands, Dublin.

NBDC (2025) *Biodiversity Maps* <https://maps.biodiversityireland.ie> [Accessed September 2025]. National Biodiversity Data Centre, Waterford.

Ní Dhúill, E. (2014) *Conservation Biology of the Threatened Killarney Fern* (Trichomanes speciosum Willd.) *in Ireland*. Unpublished Ph.D. thesis, University of Dublin, Trinity College, Dublin.

NIEA (2024) Site *Conservation Objectives for the River Foyle and Tributaries SAC [UK0030320].* Northern Ireland Environment Agency.

NPWS (2026) Conservation Objectives: Donegal Bay (Murvagh) SAC 000133. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

NPWS (2025a) Conservation Objectives: Lough Derg (Donegal) SPA 004057. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

NPWS (2025b) Conservation Objectives: Pettigo Plateau Nature Reserve SPA 004099. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

NPWS (2025c) Conservation Objectives: Lough Nillan Bog SPA 004110. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

NPWS (2025d) The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. National Parks & Wildlife Service, Department of Housing, Local Government and Heritage, Dublin.

NPWS (2025e) The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessment. National Parks & Wildlife Service, Department of Housing, Local Government and Heritage, Dublin.

NPWS (2025f) The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessment. National Parks & Wildlife Service, Department of Housing, Local Government and Heritage, Dublin.

NPWS (2025g) Online Map Viewer http://webgis.npws.ie/npwsviewer/ [Accessed October 2025]. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2019) Conservation Objectives: Lough Eske and Ardnamona Wood SAC 000163. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2018) Site Synopsis for the Donegal Bay (Murvagh) SAC [000133] National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2017a) Conservation Objectives: Croaghonagh Bog SAC 000129. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2017b) Conservation Objectives: River Finn SAC 002301. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2017c) Conservation Objectives: Cloghernagore Bog and Glenveagh National Park SAC 002047. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2015) Site Synopsis for the Lough Eske and Ardnamona Wood SAC [000163]. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2014a) Site Synopsis for the River Finn SAC [002301]. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2014b) Site Synopsis for the Lough Swilly SPA [004075]. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2013a) Site Synopsis for the Croaghonagh Bog SAC [000129]. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2013b) Site Synopsis for the Cloghernagore Bog and Glenveagh National Park SAC 002047. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2012a) Site Synopsis for Lough Derg (Donegal) SPA [004057]. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2012b) Site Synopsis for Pettigo Plateau Nature Reserve SPA [004099]. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2012c) Conservation Objectives: Donegal Bay SPA 004151. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2011a) Conservation Objectives for the Lough Swilly SAC 002287 and Lough Swilly SPA 004075. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2011b) Donegal Bay (Murvagh) SAC (site code 133) Conservation Objectives Supporting Document - Coastal Habitats. Version 2. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2010a) Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, Dublin.

NPWS (2010b) Site Synopsis for Lough Nillan Bog SPA [004110]. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2010c) *Harbour seal population monitoring 2009-2012: Report No. 1. Report on a Pilot Monitoring Study Carried out in Southern & Western Ireland, 2009*. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2010d) *Site Synopsis for Donegal Bay SPA [004151].* National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

NPWS (2009) *Threat Response Plan: Otter (2009-2011).* National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.

O'Neill, F.H. & Barron, S.J. (2013) Results of monitoring survey of old sessile oak woods and alluvial forests. Irish Wildlife Manuals, No. 71. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

O'Neill, L., Veldhuizen, T., De Jongh, A., Rochford, J. (2009) *Ranging behaviour and socio-biology of Eurasian otters (Lutra lutra) on lowland mesotrophic river systems.* European Journal of Wildlife Research. 55:363–370.

People Over Wind and Peter Sweetman *v.* Coillte Teoranta [2018] C-323/17.

Perrin, P., Martin, J., Barron, S., O'Neill, F., McNutt, K. & Delaney, A. (2008) *National Survey of Native Woodlands 2003-2008. Volume I: Main report.* A report submitted to the National Parks & Wildlife Service by Botanical, Environmental & Conservation Consultants Ltd.

Planning and Development Act, 2000. No. 30 of 2000.

Planning and Development (Amendment) Act, 2002. No. 32 of 2002.

Planning and Development (Strategic Infrastructure) Act, 2006. No. 27 of 2006.

Planning and Development (Amendment) Act, 2010. No. 30 of 2010.

OPR (2021) *Practice Note PN01: Appropriate Assessment Screening for Development Management*. Published March 2021. Office of the Planning Regulator.

Ratcliffe, D.A., Birks, H.J.B., & Birks, H.H. (1993) *The ecology and conservation of the Killarney Fern* Trichomanes speciosum Willd*. in Britain and Ireland*. Biological Conservation 66, 231–247

Reid, N., Keys, A., Preston, J.S., Moorkens, E., Roberts, D. and Wilson. C. (2013) Conservation status and reproduction of the critically endangered freshwater pearl mussel (Margaritifera margaritifera) in Northern Ireland. Aquat. Conserv. Mar. Freshwater Ecosyst., 23 (4) (2013), pp. 571-581

Rumsey, F.J. (1994) The *Distribution, Ecology and Population Biology of the Killarney Fern* (Trichomanes speciosum Willd.). Unpublished Ph.D. thesis, University of Manchester.

Smith, G.F., O'Donoghue, P., O'Hora, K. and Delaney, E. (2011) *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council, Kilkenny

SNH (2023) *Guidance Note 3: Guidance to support Offshore Wind applications: Marine Birds Identifying theoretical connectivity with breeding site Special Protection Areas using breeding season foraging ranges. Version 1*. Scottish Natural Heritage.

SNH (2016) *Assessing Connectivity with Special Protection Areas (SPAs): Guidance*. Scottish Natural Heritage.

Sweetman & Others *v*. An Bord Pleanála [2013] C-258/11.

TII (2025) *Rural Cycleway Design (Offline and Greenway) DN-GEO-03047;*

TII (2024) *Drainage Systems for National Roads DN-DNG-03022;*

TII (2020a) *The Management of Invasive Alien Plant Species on National Roads – Standard GE-ENV-01104;*

TII (2020b) *The Management of Invasive Alien Plant Species on National Roads – Technical Guidance GE-ENV-01105*;

TII (2009) *Guidelines for Assessment of Ecological Impacts of National Roads Schemes. Transport Infrastructure Ireland PE-ENV-01112;*

TII (2008) *Ecological Surveying Techniques for Protected Flora & Fauna during the Planning of National Road Schemes PE-ENV-01113*;

TII (2006) *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes CC-ENV-01104*;

TII (2005) *Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes CC-ENV-01101*;

Waddenzee (CaseC-127/02) [2004] ECR I-7405; Commission v Spain (Case C-404/09) [2011] E.C.R. I-11853; Sweetman (Case C-258/11).

Woodward, I.D., Thaxter, C.B., Owen, E., Bolton, M., Ward, R.M. & Cook, A.S.C.P. 2024. The value of seabird foraging ranges as a tool to investigate the impact of offshore wind farms. *Ocean and Coastal Management* 254.

APPENDIX A
DESCRIPTION OF THE PROPOSED DEVELOPMENT

Chapter 04

Description of the Proposed Development

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4. Description of the Proposed Development

4.1 Introduction

The Barnesmore Gap Greenway project aims to provide an attractive route between the towns of Donegal Town and Ballybofey/Stranorlar in County Donegal, to be used both for recreational purposes and for utility trips by pedestrians, cyclists and people with impaired the wider region, enticing users to explore its surrounding towns and villages and further develop the untapped tourism potential within the region. The project also provides the opportunity to highlight the historical and educational significance of such places, whilst promoting the scenic nature of the surrounding area. At Donegal Town the proposed greenway will connect with the international EuroVelo Route 1 which follows the northern, western and southern coastlines around Ireland, and the route also forms part of the proposed National Cycle Network across Ireland. Furthermore, the scheme provides connectivity to schools, urban centres, healthcare facilities, community centres and places of employment, facilitating day to day utility trips for local residents and the wider area.

This Chapter presents the description of the proposed development, the preferred route of the greenway and its receiving environment. The chapter also details various features of the greenway, including the abandoned railway line, road crossings, trailheads for access, bridge structures, drainage provisions and boundary treatments, as well as outlining the construction and operational phases of the development.

It should be noted that surveys, assessments and information that form the basis of this Environmental Impact Assessment Report (EIAR) are based on the design of the project as described in this chapter, which has been developed to a stage that permits a fully informed Environmental Impact Assessment (EIA) to be carried out by the competent authority. Where mitigation measures have been identified in this EIAR, it will be a contractual requirement that the appointed Construction Contractor implement those measures, in addition to standard construction methodologies.

4.2 Project Description

The settlements of Donegal Town, and Ballybofey and Stranorlar are separated by the Barnesmore Gap, a scenic glacial valley that provides the only communication gap through the 'Bluestack Mountains' in southern County Donegal. This mountain pass provides the main transportation link between north and south Donegal, as well as electrical power lines and telecommunication cables. The N15 National Road and the former West Donegal rail line pass through Barnesmore Gap, providing the only direct route from the main population centres of Letterkenny and Derry to South Donegal and beyond along the central section of the Atlantic Coast. An aerial view of Barnesmore Gap is shown in Figure 4-1.

Figure 4-1 - Barnesmore Gap Valley (Source - Ireland's Content Pool)

The proposed route of the greenway mainline is approximately 31km in length and will be a bi-directional shared walking, wheeling, and cycling route. There is a further 6.5km of links which provide additional connectivity and integration to surrounding amenities and active travel routes, which gives a total length of 37.5km for the proposed development. Refer to General Arrangement Drawings (60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-HG-0096-0126) in Volume 3 of the EIAR, and Figure 4-9 to Figure 4-12 below.

The proposed development, described from southwest to northeast, starts in Donegal Town, where a trailhead will be established adjacent to Railway Park Road and the St. John Bosco Community Centre. At each trailhead there will be off road parking provided, and at the major trailheads there will be Changing Places facilities.

The greenway route follows the abandoned railway line eastwards out of Donegal Town, using an existing stone railway bridge structure (S01) across the River Eske at Ch. 750 (Figure 4-2).

Figure 4-2 - Existing Railway Bridge Structure at River Eske in Donegal Town (S01)

A new underpass (S02) will be required to be constructed under the N56 Donegal Bypass road at Ch. 1,080, and there will be an adjacent link to Drumlonagher on the southern side of the N56. On the eastern side of the N56 the route continues along the former rail line for c.500m before diverging in a northeast direction along field boundaries, in the valley between two drumlins at Keeldrum and Drumbarren. Along this section there will be a greenway spur at Ch. 2,950, that heads south-eastwards for 0.9km to Clar Chapel on the southern side of the N15 where a new underpass (S03) will be provided. This spur will provide a 4km long safe route for pedestrians and cyclists from the residential community at Clar to Donegal Town that will bypass the busy roundabout at Drumlonagher. The underpass will also provide a safe crossing of the busy N15 road for the local community.

When the greenway meets the L6525, at Ch. 3,230, the route then travels in a northern direction for 0.3km, crossing the L65351 local road at Ch. 3,350. These local road crossings will provide access to the greenway for people living in the surrounding rural area in the hinterland of Donegal Town.

Where it splits; the ‘Mainline’ continues to the north, crossing the River Eske and associated SAC on a multi-span bridge (S04, single span across the river) and entering the Coillte lands of Lougheask Demesne. An existing car park will be upgraded to provide a trailhead at this location. From the trailhead, a section of an existing forest trail (forming part of the Bluestack Way) will be upgraded to reach the east of the demesne and the entrance to Lough Eske Castle. Connectivity to the north of the demesne, Lough Eske Castle, Harvey’s Point Hotel and the local road leading to Lough Eske Angling Centre will be provided by the existing Bluestack Way trail.

Figure 4-3 - New River Eske Crossing Location (S04)

From the entrance to Lough Eske Castle, the greenway follows the south side of Lough Eske and along a short section of local road which crosses the River Eske on the existing road bridge (NIAH listed structure, Ref: 40909421 and RPS, Ref 40801105). This bridge (S05 Figure 4-5) will be retrofitted to provide a segregated active travel facility within the existing parapets and formalise a yield arrangement for vehicular traffic, as shown on Lough Eske Bridge Detail Drawing 60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-HG-0132. The greenway then continues south through the townland of Corveen, running alongside the south side of Lough Eske and field boundaries until it meets the 'loop' section north of St Francis National School. This loop will be created by a section of greenway travelling east to west south of the River Eske crossing, across agricultural fields with views across to the Bluestack Mountains, before passing through Clarlougheask and crossing the L1945 at Ch. 6,100.

Figure 4-4 - Existing Road Bridge over River Eske (S05)

The route then continues south and east where it provides connectivity to St Francis National School at Ch. 6,700 and heads towards the northern side of the N15. The route follows the abandoned rail line for a short distance before crossing the N15 via a new underpass (S07) at Mullanalamphry. Once on the southern side of the N15 the route follows parallel to the

national road behind the existing layer of trees and vegetation. It crosses the River Lowerymore tributary on an existing railway bridge (S08) and then follows on the northern side of the stream towards the local road L2595, in the townland of Keadew Lower. The route runs parallel to the local road for approximately 400m until it crosses it at grade at Ch. 10,240 and enters an area of Coillte forestry in Keadew Upper. At this point the route realigns with the path of the abandoned railway line (Figure 4-5) and continues along it until the south side of Ballybofey and Stranorlar, approximately 18km.

Figure 4-5 - Abandoned Railway Corridor

A link is provided to Biddy's O'Barnes at Ch. 12,350 where a trailhead will be established. The route, passing through Barnesmore Gap, will provide incredibly scenic views of the glacially carved valley, before running alongside the northern shore of Lough Mourne.

Figure 4-6 - Barnesmore Gap Glacial Valley

A link is provided from Goland to Cappry at Ch. 24,680, to meet the proposed TEN-T Active Travel facility adjacent to the Roadhouse Bar and Restaurant and to provide connectivity to Cappry. A short section of the link will utilise the existing local road and an existing crossing of the Burn Daurnett. The main route continues to follow the abandoned rail line towards Ballybofey and Stranorlar, through another area of Coillte forestry and through agricultural land. A further connection is provided to Sessiaghoneill National School and Sessiaghoneill Church.

The main route diverges from the rail line to the southwest of the twin towns around the Lawnsdale housing estate. The rail line historically would have passed directly through where the Lawnsdale housing estate is located. The greenway route provides an access point into Lawnsdale, but the route bypasses the housing estate to the south, before turning north on the eastern side of the Lawnsdale housing estate and entering a railway cutting. The route follows the railway cutting through The Beeches housing estate, where it meets Navenny St on the north side at Ch. 29,300.

Figure 4-7 - Abandoned Railway Corridor at The Beeches

An at grade crossing will be required for the route at this point, and it will cross the River Finn using a new deck on the existing railway bridge piers (S20) to continue north (Figure 4-8). On the north side of the River Finn the route will follow the historic rail line before diverging to the north where it meets a proposed trailhead adjacent to The Base enterprise centre. From the trailhead, the greenway then continues along Railway Road in both directions providing connectivity to the leisure centre and schools in the town, shown in Drawing 60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-SK-HG-0003. A further link is to be provided along the remainder of the abandoned railway line towards Ballybofey. This link provides improved connectivity to the urban core of Ballybofey south of the River Finn, as well linking an existing access for the sports pitches on both sides of the railway line.

Figure 4-8 - Existing Railway Piers in River Finn (S20)

The proposed route overview is shown in Figure 4-9 to Figure 4-12.

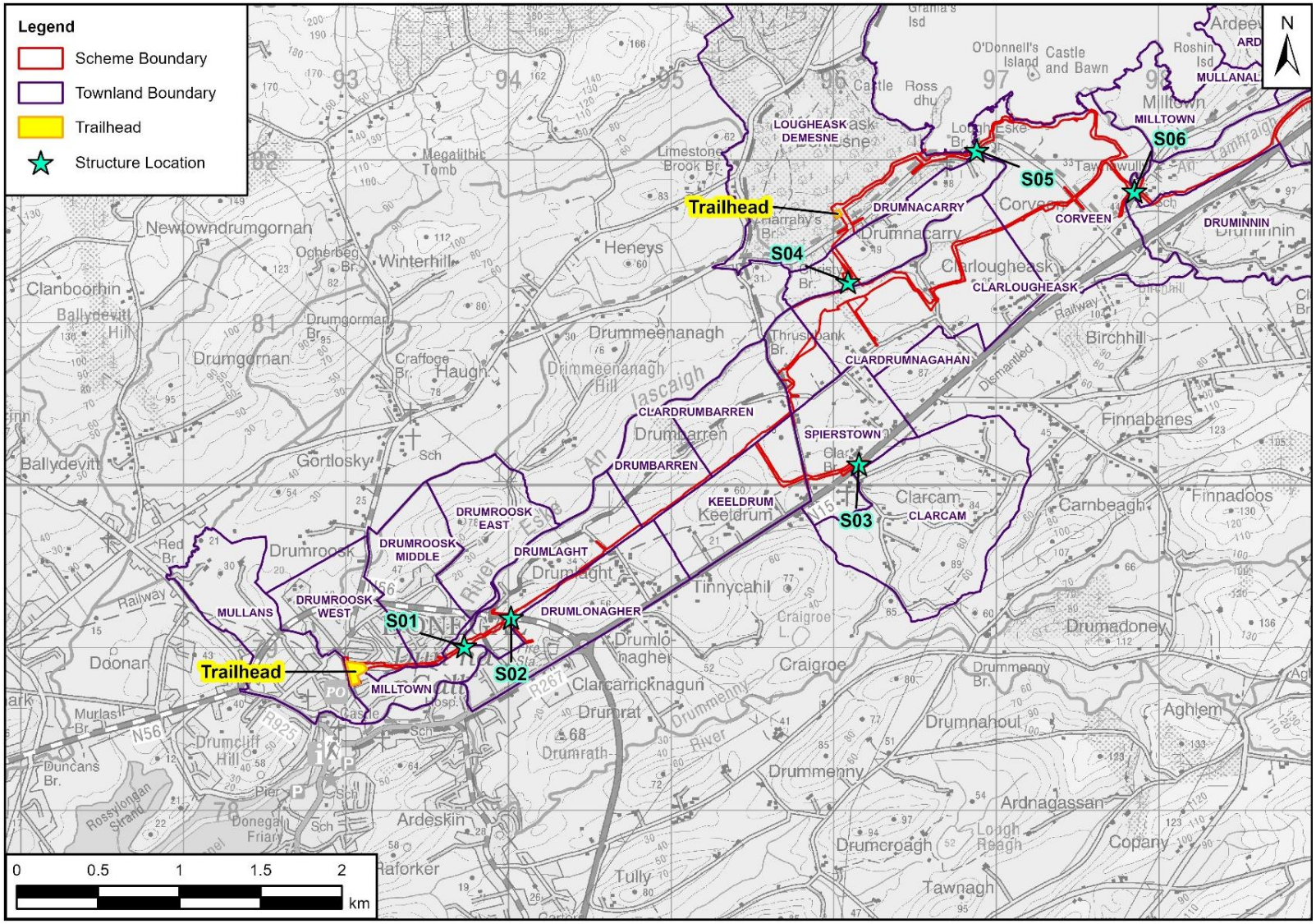


Figure 4-9 - Proposed Route Overview - 1 of 4

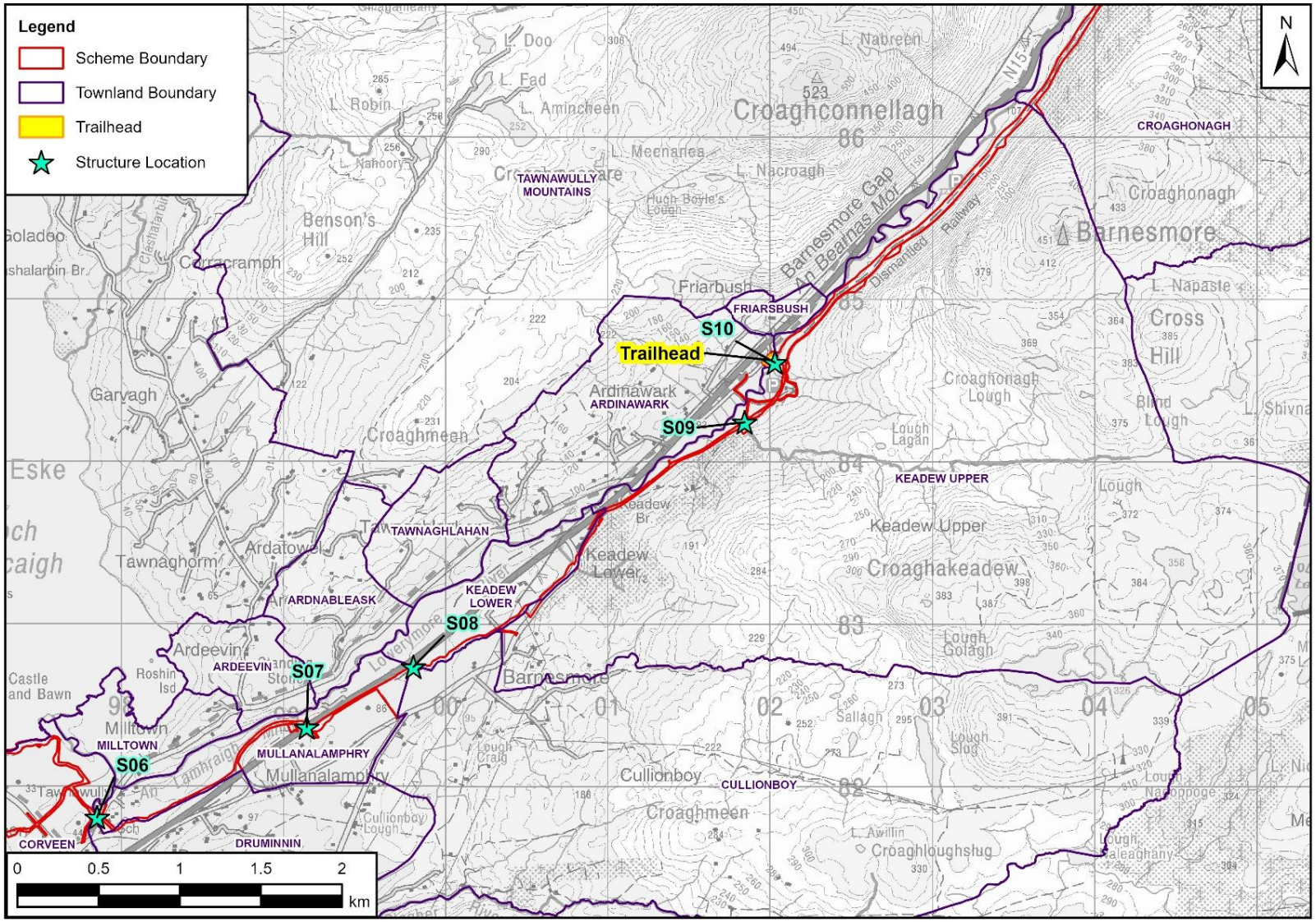


Figure 4-10 - Proposed Route Overview – 2 of 4

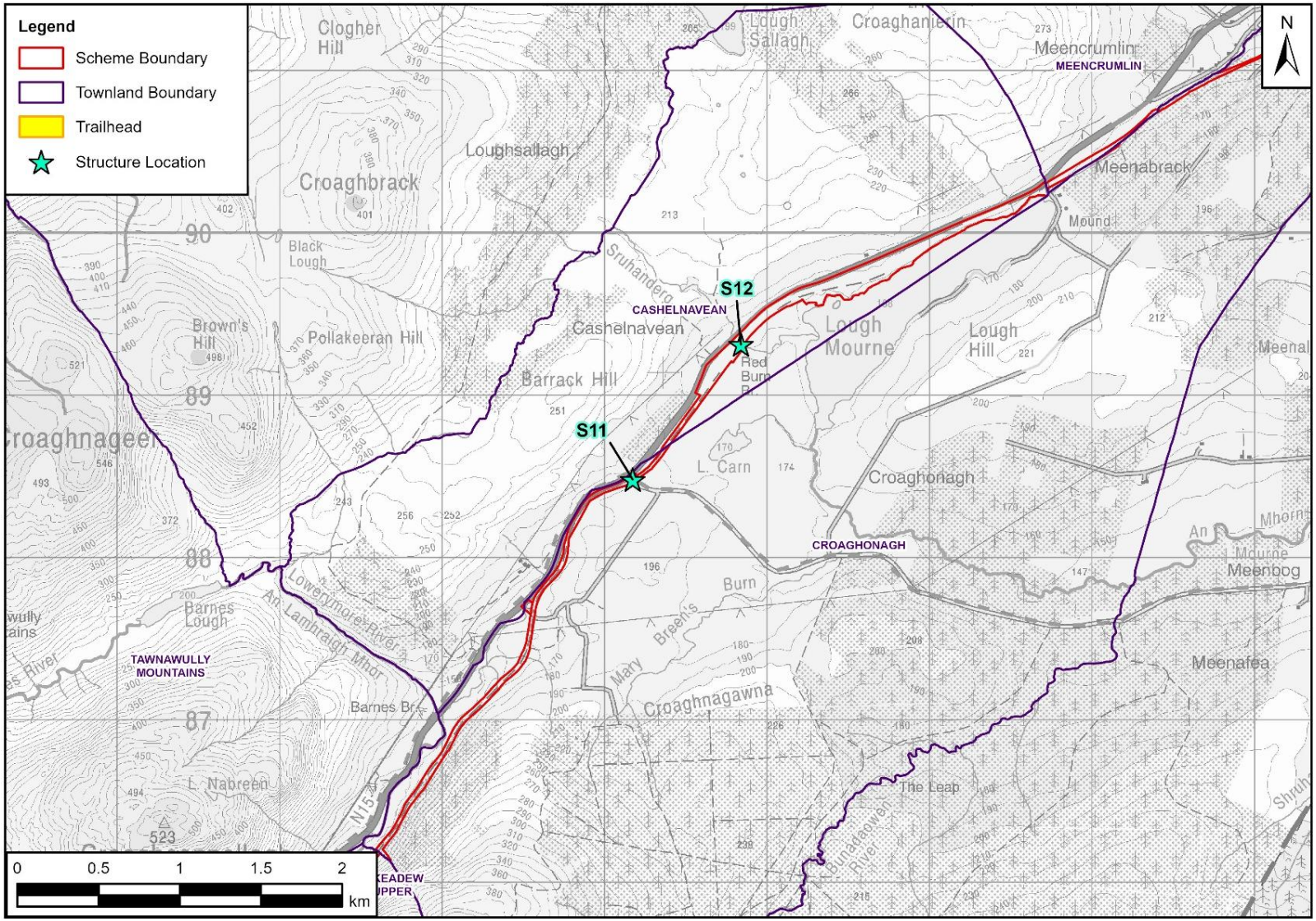


Figure 4-11 - Proposed Route Overview – 3 of 4

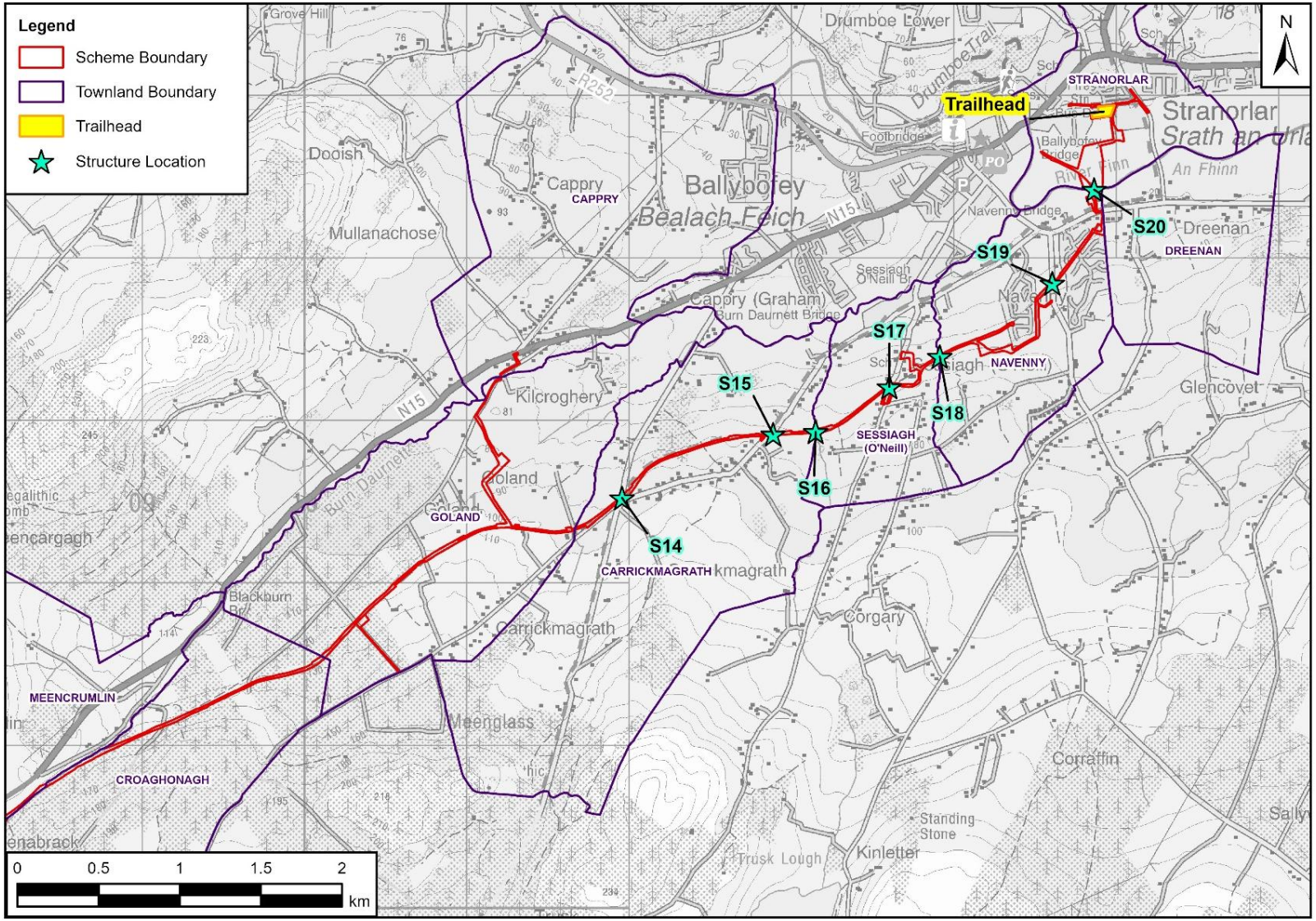


Figure 4-12 - Proposed Route Overview – 4 of 4

4.3 Proposed Development

4.3.1 Greenway Design Principles

In line with the objectives of the scheme, the design standards and the Code of Best Practice for National and Regional Greenways, the design of the greenway has been undertaken to maximise the benefits with respect to the following:

- safety,
- segregation from vehicular traffic,
- accessibility for user of all age groups and abilities,
- security,
- attractiveness,
- coherence,
- comfort,
- high quality of service,
- durability,

and minimise, where possible, the impacts on:

- the environment,
- landowners, and
- maintenance requirements.

The following design standards were applied as part of the design process. Where deviations from standard have been deemed necessary due to engineering or environmental constraints, departures and relaxations from standard have been developed in line with TII guidance.

- Transport Infrastructure Ireland (April 2021) *Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes DN-GEO-03030;*
- Transport Infrastructure Ireland (February 2025) *Rural Cycle Scheme Design (Offline & Greenway) DN-GEO-03047;*
- Transport Infrastructure Ireland (May 2023) *Geometric Design of Junctions DN-GEO-03060;*
- Transport Infrastructure Ireland (May 2023) *Rural Road Link Design DN-GEO-03031;*
- Transport Infrastructure Ireland (May 2023) *Cross Sections and Headroom DN-GEO-03036;*
- Transport Infrastructure Ireland (December 2000) *Subways for Pedestrians and Pedal Cyclists Layout and Dimensions DN-GEO-03040;*
- Transport Infrastructure Ireland (July 2004) *Design Criteria for Footbridges DN-STR-03005;*
- Transport Infrastructure Ireland (June 2015) *Edge of Pavement Design DN-DNG-03062;*
- Transport Infrastructure Ireland (July 2021) *The Treatment of Transition Zones to Towns and Villages on National Roads DN-GEO-03084;* and
- National Transport Authority (September 2023) *Cycle Design Manual*.

The greenway has been designed as a ‘cycleway that caters for people walking, wheeling and cycling in a mainly recreational environment.’, in accordance with TII Publication DN-GEO-03047.

4.3.2 Greenway Profile

The proposed development will be divided into several sections, and each section will have a general common requirement with regards to construction methodology. The four main classifications are:

- Abandoned Railway Corridor
- Offline greenfield
- Offline woodland
- Existing and new structures

The greenway cross section has been designed to be 3m in width with 1m verges either side as illustrated in Figure 4-13 below. In areas close to the urban centres of Donegal Town, and Ballybofey/Stranorlar, the paved areas will be 4m wide as illustrated in Figure 4-14 below. The area between the verges and greenway boundary includes earthworks, drainage and landscaping, and the boundary is marked by new or existing fencing and vegetation, outlined further in Section 4.3.4. Figure 4-15 and Figure 4-16 are examples of greenways in County Mayo and County Limerick. The examples show sections of greenway in rural areas that have no fencing or fencing on a single side of the corridor.

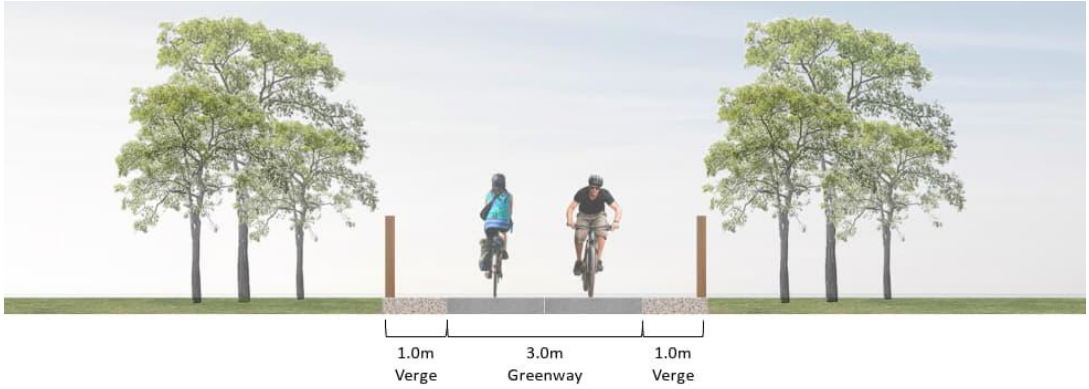


Figure 4-13 - Typical Cross Section of 3.00m Wide Greenway

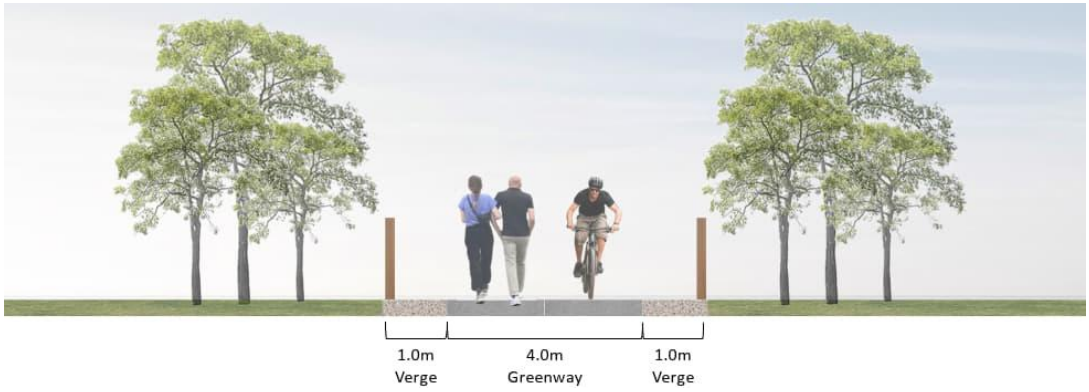


Figure 4-14 - Typical Cross Section of 4.00m Wide Greenway

Figure 4-15 - Great Western Greenway, Mulranny, County Mayo (Source – Greenways Ireland [Greenways Ireland, your 2023 Guide to Greenways in Ireland])

Figure 4-16 - Limerick Greenway, County Limerick (Source – Greenways Ireland [Greenways Ireland, your 2023 Guide to Greenways in Ireland])

The vertical profile has been designed, where possible, to meet the requirements in TII Publication DN-GEO-03047. Gradients have been kept to less than 3% across most of the route, however existing topography dictates that some short sections (<150m) have a gradient of up to 5%.

The extent of the earthworks is determined by the cross sections and horizontal and vertical profiles. While the extent of earthworks has been minimised where possible by following the existing topography, in some cases cut and fill is required to maintain gradients to the required standards and provide an accessible and attractive facility.

On the abandoned railway corridor, minimal earthworks will be required as the vertical profile follows the existing profile for the majority. In offline greenfield areas, and on the approach to underpasses and bridges, cut and fill will be required in some locations.

4.3.3 Greenway Pavement

The primary consideration for the cycleway pavement design is to ensure that it provides adequate levels of service, specifically ride quality, skid resistance, maintenance need, and construction cost. The greenway pavement structure will be a Type A Bituminous material base/binder and surface course owing to expected high user volumes and significant cumulative riding quality impact on user experience is expected. The pavement structure for the route can be found in Table 4-1. Pavement Type A2 will be the primary design owing to the potential for the route to be lightly trafficked by vehicles with less than 0.2 million standard axles (msa) over the pavement design life. Where it is anticipated that the route will not take traffic loading, Pavement Type A1 will be utilised to provide cost saving benefits.

It is assumed that the subgrade has a minimum CBR of 2.5%. Where subgrade design CBRs determined are less than 2.5%, for example in offline areas with peat, a floating ('no dig') construction technique will be implemented. This will involve the use of geogrid, geotextile and 6F2 capping on top of the sub-formation (or existing surface where possible), overlain by the pavement makeup as described above.

In order to maximise the benefits of constructing the greenway on an abandoned railway corridor, it is proposed to reduce the thickness of the subbase layer to 100mm in these areas. The pavement structural design on the railway can be found in Table 4-2.

Table 4-1 - Pavement Structural Design - General

Pavement Course	Type A1 (Cycleway and Pedestrian only)	Type A2 (Light Traffic [<0.2 MS])
Surface Course	Dense Bitumen Macadam surface course with grade 100 penetration binder, with 6mm aggregate, 20 mm thick (formal description AC 6 close surf 70/100)	Dense Bitumen Macadam surface course with grade 100 penetration binder, with 6mm aggregate, 20 mm thick (formal description AC 6 close surf 70/100)
Base/Binder	Dense Macadam binder course with grade 100 penetration binder, with 20mm aggregate, 50mm thick (formal description AC 20 dense bin 70/100)	Dense Macadam binder course with grade 100 penetration binder, with 20mm aggregate, 50mm thick (formal description AC 20 dense bin 70/100)
Subbase	Unbound Granular Material 150mm thick (UGM A)	Unbound Granular Material 200mm thick (UGM A)
Capping (if required)	300 mm thick capping layer	300 mm thick capping layer
Geotextile (if required)	Woven polypropylene geotextile of width 4.50m (typical) will be used as separation layer if required	

Table 4-2 - Pavement Structural Design - Railway

Pavement Course	Pavement on Abandoned Railway
Surface Course	Dense Bitumen Macadam surface course with grade 100 penetration binder, with 6mm aggregate, 20 mm thick (formal description AC 6 close surf 70/100)
Base/Binder	Dense Macadam binder course with grade 100 penetration binder, with 20mm aggregate, 50mm thick (formal description AC 20 dense bin 70/100)
Subbase	Unbound Granular Material 100mm thick (UGM A)

Figure 4-17 - Finished Pavement and Edge Treatment; South East Greenway, County Kilkenny / County Wexford (Source – South East Greenway [Visitors Homepage - South East Greenway])

Figure 4-18 - Finished Pavement; South East Greenway, County Kilkenny / County Wexford (Source – South East Greenway [Visitors Homepage - South East Greenway])

4.3.4 Boundaries and Verges

The boundary treatment between the greenway and privately owned lands is dependent on several factors including livestock control, security and privacy for adjacent landowners and the safety of users of the greenway.

Where possible, the design seeks to avoid the construction of new fencing, and existing boundaries will be retained where present and possible to do so. Where dense vegetation

exists alongside the route, it is proposed that no fence will be installed to promote cohesion with the surrounding natural environment. Standard post and rail fence will be used along the boundary of the greenway for sections of the route where dense existing vegetation does not exist, and stock proof fencing will be installed in areas where livestock are found in adjacent fields. The fencing design is shown on Drawing Nos 60701883-ACM-HFE-SW_ZZ_ZZ_ZZ-DR-HG-0001 -0031 in Volume 3.

Sections of the proposed development that run adjacent to, or through private farmland will require to be adequately fenced on both sides. Timber stock proof fencing with native hedgerows is proposed for these areas. The offline section of the route largely follows the line of existing field boundaries, so existing fencing and hedgerows are already present on one side. New stockproof fencing will be installed and native hedgerows will be planted on the other side of the greenway where a new field boundary is required.

For the safety of greenway users, post and rail fencing will be constructed as edge protection adjacent to structures. Mature vegetation exists alongside long sections of the abandoned railway line, and it will be retained, but some additional stock proof fencing may be required. Accommodation works, including gates and holding pens will also be provided where the proposed development passes through individual parcels of land. Screen fencing will also be provided in consultation with individual landowners.

Verges will typically be 1.0m wide, providing lateral clearance between the greenway and vertical objects, as well as providing a flat area for pavement runoff to infiltrate. In some locations where space is constrained, for example on some sections along the abandoned railway line, the verges will narrow to 0.5m.

4.3.5 Access Points, Junctions, & Crossings

The greenway will be accessible from several locations, including formal trailheads, dedicated spurs and connections and from the local road network at various crossing points.

The trailhead locations are shown in Table 4-3:

Table 4-3 - Proposed Trailhead Locations

Location / Description	Chainage (m)
Donegal Town (St. John Bosco Community Centre)	00
Lough Eske Demesne	650 (Eske Loop)
Biddy's O'Barnes	12310
Stranorlar (The Base Enterprise Centre)	30060

Additional access points will be provided at locations which have been identified as short journey start/end points and provide links to other infrastructure. The list of additional access points can be found in Table 4-4 below.

Table 4-4 - Proposed route access points

Location / Description	Chainage (m)
Drumlonagher	1040
Existing Car Park beside Clar Chapel	925 (Clar Link)
Mullanamphry	8800
Dearg Line L65541	17300
Meenglass L30441	25450
Coppering Heights L30441	26410
Sessiaghoneill National School link L28142	27550
Lawnsdale Housing Estate	27900
Ballybofey	29600
Stranorlar – Finn Valley Centre	30300

Location / Description	Chainage (m)
Cappry N15	1310 (Goland Link)

Finally, there are also several locations where the proposed greenway interacts with the public road network where it can be accessed. These are outlined in Table 4-5 below.

Table 4-5 - Interactions with the public road network

Location / Description	Chainage (m)
Mill Lane L19951	870
Local Road L19952	1800
Local Road L65251	3230
Local Road L65251	460 (Clar Link)
Local Road L65351	3350
Local Road L19453	540 (Eske Loop)
Local Road L19453	1350 (Eske Loop)
Local Road L19453	6100
St Francis National School L19752	6700
Local Road L25951	10260
Local Road Woodland	24080
Local Road L65441 Goland	810 (Goland Link)
The Beeches	28950
Navenny Street L30443	29350

Crossings of local roads have been designed as at-grade, vehicle priority junctions. Greenway users will be encouraged to yield to vehicle traffic using signage, road markings and access control/chicanes. Jug handle type approaches will be implemented where required and the design has considered visibility requirements for both greenway users and vehicular traffic, in accordance with TII publications DN-GEO-03047 and DN-GEO-03060. Road crossings are designed so the greenway meets the road at right angles, maximising the greenway user's visibility of road traffic. Figure 4-19 and Figure 4-20 show the typical road crossing details where the greenway meets a local road.

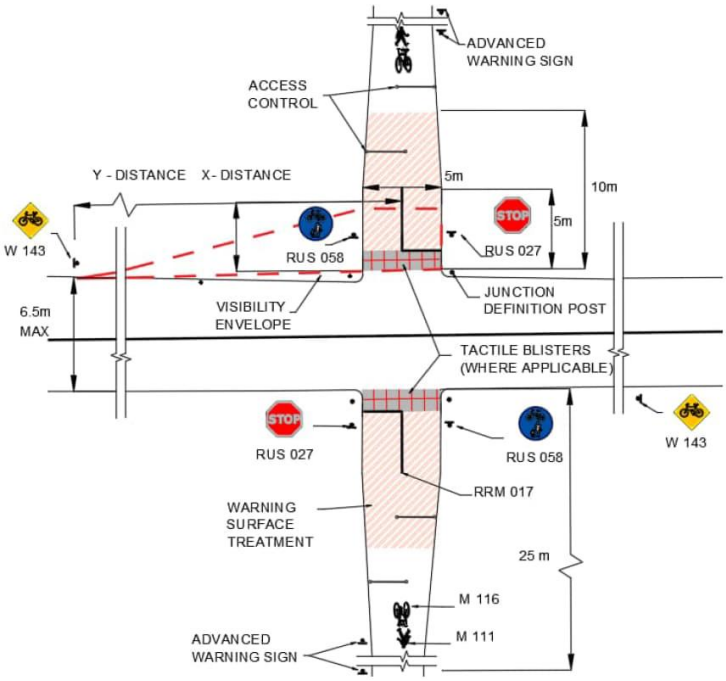


Figure 4-19 - Local & Regional Road Carriageway Crossing Detail

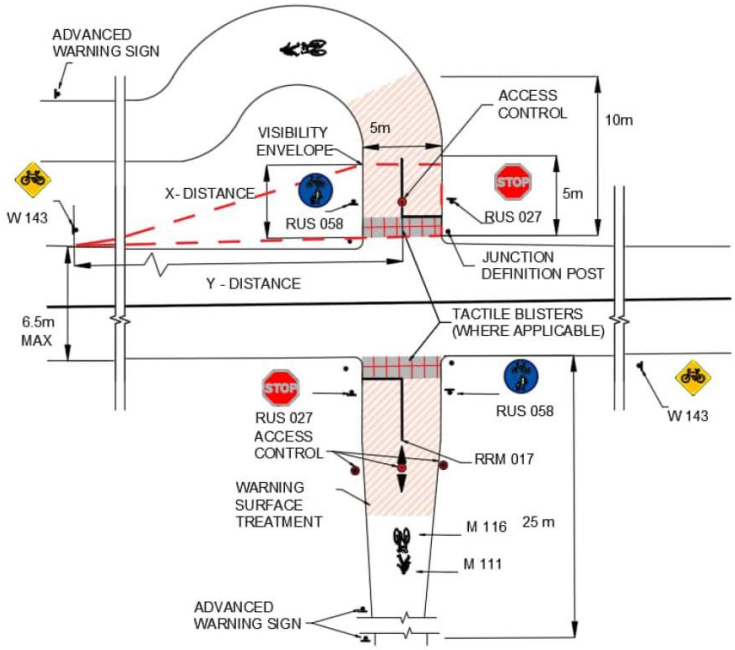


Figure 4-20 - Jug Handle Crossing Detail

Crossings of private accesses are designed so that priority lies with the greenway user, requiring vehicular traffic to give way to cyclists and pedestrians. The alignment of the greenway will be maintained across access to avoid an undulating vertical profile, and gradients approaching crossings are kept to 3% or less to facilitate safe and efficient stopping.

For landowners with land on either side of the greenway, accesses will be provided as required for crossing movements of machinery and animals, on a like for like basis. The default gate type that is to be provided is a single field gate per TII standard CC-SCD-00309. Gates will be hung on opposite piers either side of the greenway, and when opened, will temporarily close off the greenway to allow the landowner to cross. Illustrated in Figure 4-21 and Figure 4-22, and in Drawing No. 60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-DE-HG-0002. In some circumstances where there is a known need for a wider crossing, double field gates per TII standard CC-SCD-00310 will be provided – for example where there is forestry existing or planned on the far side of the greenway, and large machinery will need to cross in the future. Animal pens/corrals may also be provided where necessary.

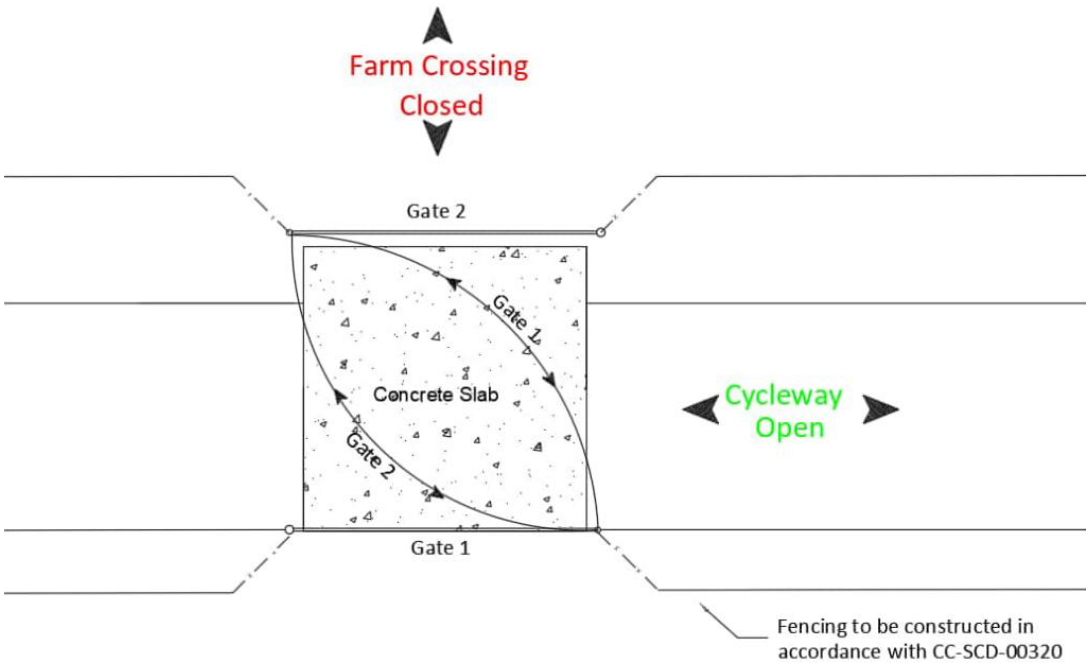


Figure 4-21 - Farm Crossing Gate Detail (Open for Greenway Users)

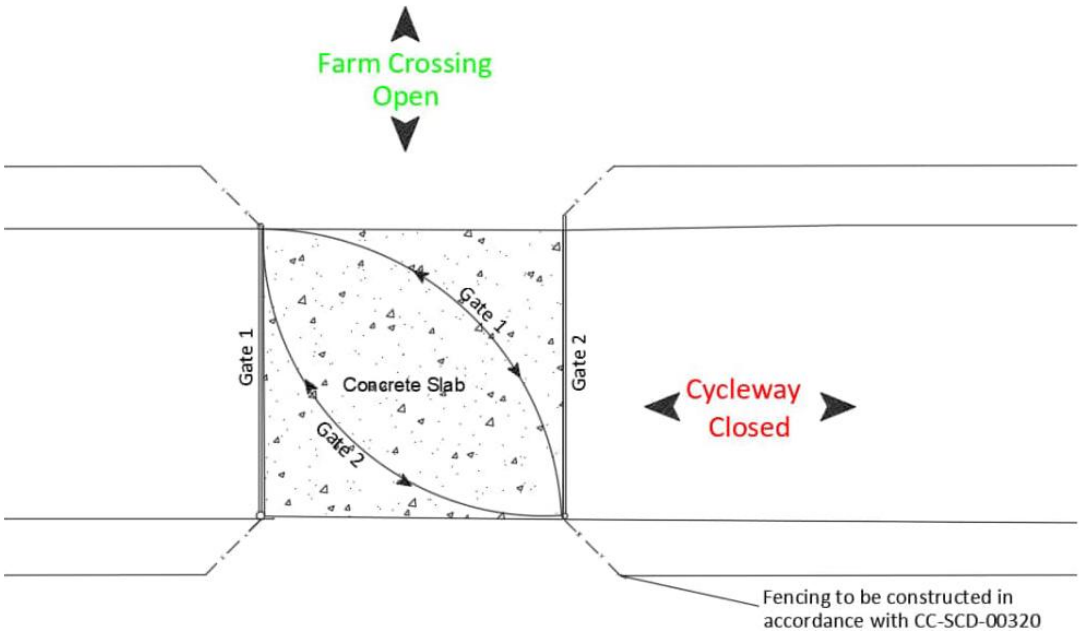


Figure 4-22 - Farm Crossing Gate Detail (Closed for Greenway Users)

At locations where the proposed greenway route is running along an access track currently used by landowners, gate access and a new access track in adjoining fields may be provided. Alternative access tracks may be required at some locations where the abandoned railway line is currently being used for access by landowners.

Chicanes (staggered approach barriers) (Figure 4-23) will be used at crossing points of local roads and access/egress of the greenway to reduce cyclist speeds to a minimum and encourage dismount for road crossings. In all cases, infrastructure to slow cyclists will be located on the greenway and not on the public road.

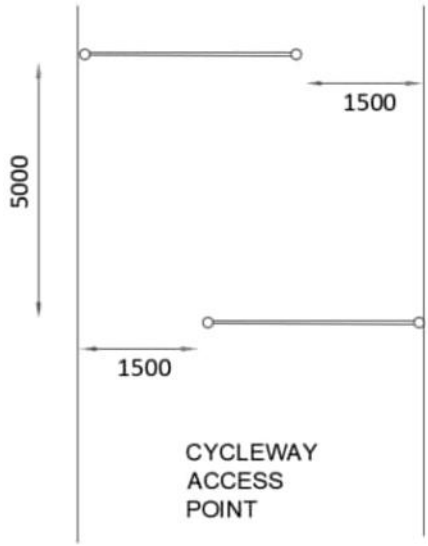


Figure 4-23 - Staggered Approach Barrier

4.3.6 Structures

The proposed development includes 91 No. structures in totality, these consist of minor structures (culverts), new river bridges, existing structures (road and river crossings), 1 No. new underpass under the N56 and 2 No. new underpasses under the N15.

The proposed and existing structures (not including minor culverts) and their approximate locations are listed below in Table 4-6.

Table 4-6 - Proposed Structures

Description	Type	Reference	Chainage (m)
N56 Underpass	Subway	S02	1100
Watercourse crossing	Culvert	PC07	2940
River Eske crossing	Bridge	S04	Lough Eske Loop West 55
Watercourse crossing	Culvert	PC08	4275
Clarlougheask - Carbbeagh	Culvert	PC09	4820
Watercourse crossing	Culvert	PC10	5330
Field Ditch	Culvert	PC11	6420
Watercourse crossing at St Francis'	Bridge	S06	6670
Watercourse crossing	Culvert	PC13	6800
Watercourse crossing	Culvert	PC14	6970
Watercourse crossing	Culvert	PC15	7220
N15 Underpass	Subway	S07	8220
Biddy's O'Barnes	Bridge	S10	12310
Watercourse crossing	Culvert	PC17	25050
Sessiagh View Road crossing (west abutment existing)	Bridge	S17	27260
River Finn bridge (existing piers)	Bridge	S20	29470
Field Ditch	Culvert	PC03	Clar Link 350
N15 Underpass (Clar)	Subway	S03	Clar Link 800

Table 4-7 - Existing Structures

Description	Type	Reference	Chainage (m)
River Eske crossing	Underbridge	S01	750
River Eske mouth	Underbridge	S05	Lough Eske Loop East 950
River Lowrymore crossing	Underbridge	S08	9025
River Lowrymore crossing (tributary)	Underbridge	S09	11680
Dearg Line Road crossing	Overbridge	S11	17250
River Dearg crossing	Underbridge	S12	18330
Meenglass Road	Overbridge	S14	25400
Coppering Heights Road	Overbridge	S15	26460
Unnamed watercourse crossing	Underbridge	S16	26720
Unnamed watercourse crossing	Underbridge	S18	27660
Navenny Street Road	Overbridge	S19	28700
Burn Daurnett crossing	Bridge	S13A	Goland Link 1080

4.3.6.1 Repair of Existing Structures

Several existing bridges and minor structures (spans less than 2 m) are noted which are to be incorporated within scheme. These mostly consist of masonry arch bridges and stone clapper bridges. The minor structures on the scheme are typically buried structures for drainage and do not require widening. All stone clapper bridges on the scheme are minor structures, whereas the masonry arch bridges on the scheme were a combination of drainage structures and railway over/underbridges.

The masonry arch rail bridges consist of 4 No. overbridges (greenway to pass underneath, i.e. bridge over greenway) and 7 No. underbridges (greenway on bridge, i.e. bridge under

greenway). The designation of over- and underbridges is conventionally done on the basis of the relationship of the bridge to the primary passage of the two crossing passages. In the above definition, the greenway is the primary passage for convenience of terminology.

For the overbridges, no modification works are envisaged to the structure beyond typical maintenance and repair works highlighted in the following paragraphs. Minor groundwater was observed on the old railway line at these locations and so dewatering works will be required prior to construction of the greenway carriageway.

Each one of these structures will require repair works to secure their future use, however the condition of these bridges will vary substantially with each requiring a differing level of repair. The following non-exhaustive list covers the typical types of repairs envisaged as part of the scheme:

- Vegetation clearance
- Masonry repointing
- Masonry replacement
- Concrete Saddling to Masonry Arches located over watercourses
- Parapet renewal
- Surfacing works

The repairs listed above are those typically carried out on all structures across Ireland under annual maintenance and asset management regimes. All repairs should aim to increase the residual design life of the structures to avoid requirements for future replacement works.

The existing retaining walls on the old railway line will be retained.

4.3.6.2 New Structures

The new structures on the scheme comprise 3 No. national road underpasses, 1 No. road overbridge, 3 No. river bridges, and 9 No. minor drainage structures. In addition to the new bridges, 1 No. river bridge will be constructed on the remnants of the River Finn Viaduct. The proposed drainage structures will comprise precast box or pipe culverts; the widths and heights of which is outlined in Section 4.3.8. The new structures options are shown on the following drawings Volume 3 of the EIAR:

- G.A. Details Of Underpass S02 - BGGP-ACM-SBR-S02-DR-CB-30001
- G.A. Details Of Underpass S03 - BGGP-ACM-SBR-S03-DR-CB-30001
- G.A. Details Of Riverbridge S04 - BGGP-ROD-SBR-RVB_S04-DR-CB-30001-30002
- G.A. Details Of Riverbridge S06 - BGGP-ROD-SBR-RVB_S06-DR-CB-30001
- G.A. Details Of Underpass S07 - BGGP-ACM-SBR-S07-DR-CB-30001
- G.A. Details Of Riverbridge S10 - BGGP-ROD-SBR-RVB_S10-DR-CB-30001
- G.A. Details Of Overbridge S17 - BGGP-ROD-SBR-OVB_S17-DR-CB-30001
- G.A. Details Of Riverbridge S20 - BGGP-ROD-SBR-RVB_S20-DR-CB-30001

4.3.6.2.1 Underpasses

The underpasses will cross the N56 (1 No.) and N15 (2 No.) national roads and will be constructed with precast concrete box culvert units. The box culverts will be installed in 2m segments over the length of the proposed underpasses and will require traffic lane closures of the national roads during their construction.

At the 40m long N56 underpass (Ch. 950), the internal width is 6m to provide for the 4m facility width over this section of the greenway and a 1m lateral clearance to the walls of the box culvert on each side.

The 26m long N15 underpass at Clar is adjacent to the disused Clar Bridge (masonry arch structure). An internal arch of Clar Bridge will be incorporated into the eastern portal of the underpass. However, it is not proposed to have them structurally connected. The internal

width will be 5 m to accommodate the 3 m greenway width on this spur with 1m clearances on each side.

At the 26m long N15 Druminin underpass (Ch. 8,250), the width is increased to 5.5m to account for the minor curve of the horizontal alignment for the 3m facility width at this point. Reinforced concrete wingwalls will be provided at the portals to the underpasses.

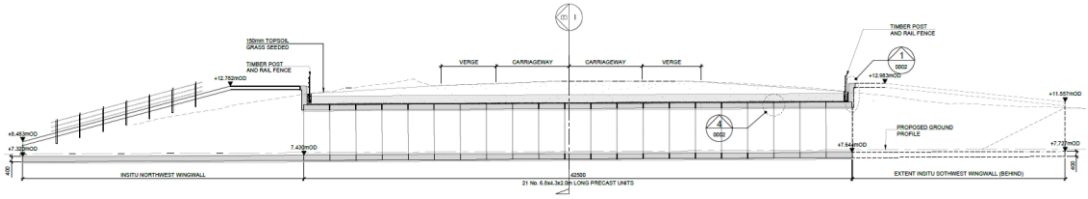


Figure 4-24 - N56 Underpass

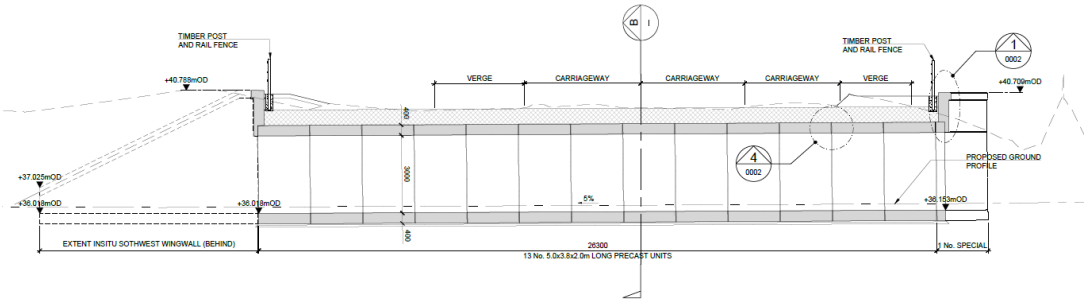


Figure 4-25 - N15 Underpass (Clar Bridge)

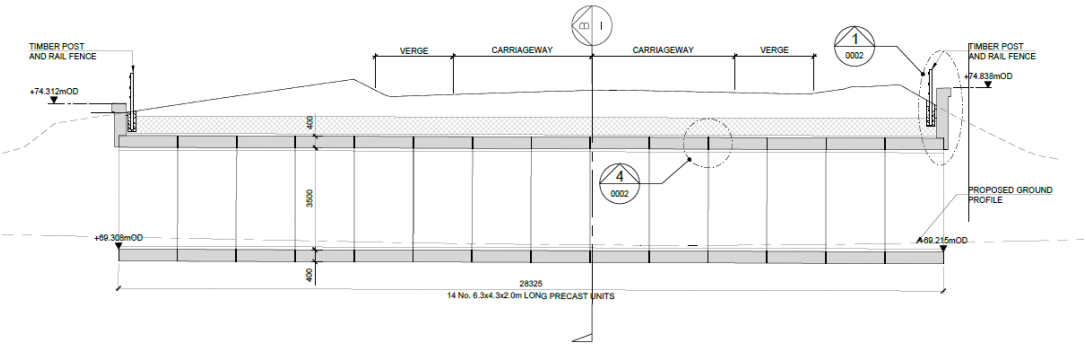


Figure 4-26 - N15 Underpass

4.3.6.2.2 Road Overbridge

The only proposed road overbridge on the scheme is located at Sessiagh View to the south of Ballybofey. This bridge will be replacing a previous rail bridge that existed at the site, from which the original abutments remain and are visible on road. The bridge at this location will be a single span, 24m long structure with a 1% longitudinal gradient and a straight plan alignment. The deck consists of a symmetric u-frame with weathering steel box-girders forming the pair of above-deck longitudinal girders. Intermediate transverse beams are spaced at 1.5m centres. The deck consists of precast concrete deck slabs made composite with the transverse beams. The end supports consist of reinforced concrete abutment walls and bankseats. The abutments consist of reinforced concrete abutment walls and bankseats. It is not proposed to reuse the previous abutments due to their close proximity to the existing carriageway. The foundations will consist of spread foundations due to the close proximity of the footing to rock. The steel deck will have a rigid connection to the abutment and not require bearings or movement joints (integral construction). A minimum headroom clearance of 5.7m to the roadway below is provided throughout.

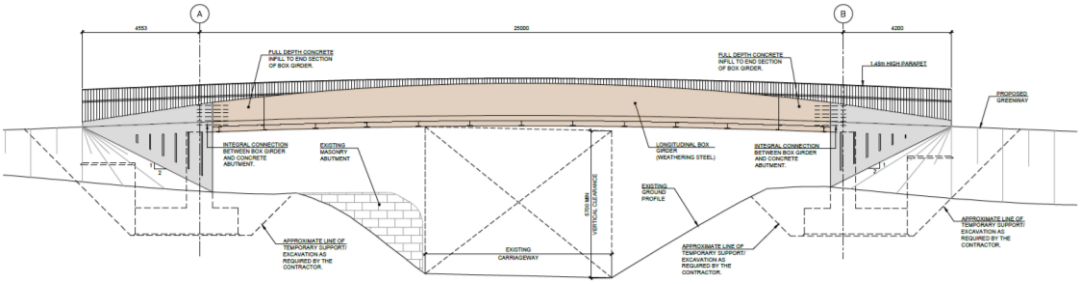


Figure 4-27 - Sessiagh View Overbridge

4.3.6.2.3 River Bridges

The (5) river bridges are highlighted as below:

- **River Eske Viaduct:** This is a 175 m long, 6-span viaduct in a steep topography at the beginning of the Lough Eske Loop. The plan alignment of the proposed structure is an S-shape and features a 4m width between the parapet railings throughout. The bridge maintains a vertical gradient of 2.9% over its alignment and approaches. The longest span of 40m is across the River Eske. The remaining spans vary from 14.5m to 38.8m. No in-river works are proposed for this structure. The deck consists of an asymmetrical U-shaped weathering steel box-girder that features an alternating upstand on the inside of each curve. The intermediate supports comprise slender concrete-infilled steel tubular piers that are rigidly connected to the deck. The end supports comprise of reinforced concrete abutment walls and bankseats. A mix of piled and pad foundations are proposed given the anticipated rock level close to the riverbank. As per the intermediate piers, the deck will be rigidly connected to the abutments and, as such, the structure is classed as integral (no bearings or movement joints).

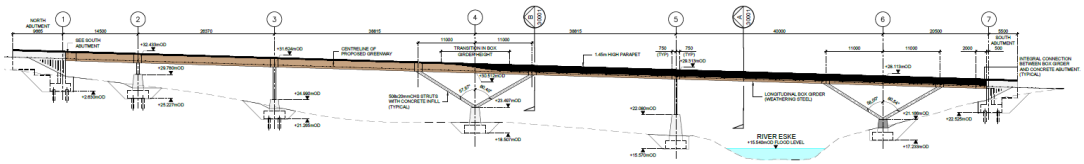


Figure 4-28 - River Eske Viaduct

- **Clogher River Bridge:** This is a single-span, 24m long bridge adjacent to St. Francis National School. The bridge meets the existing local road at the crest of a hill and so has a vertical gradient of approx. 2.5%. The plan alignment of the proposed structure is straight and features a 4m width between the parapet railings throughout. No in-river works are proposed for this structure. The deck consists of a symmetric u-frame with weathering steel box-girders forming the pair of above-deck longitudinal girders. Intermediate transverse beams are spaced at 1.5m centres. The deck consists of precast concrete deck slabs made composite with the transverse beams. The end supports consist of reinforced concrete abutment walls and bankseats. Pad foundations are proposed given the close proximity of rock to the existing ground level. The deck will be rigidly connected to the abutments and, as such, the structure is classed as integral (no bearings or movement joints).

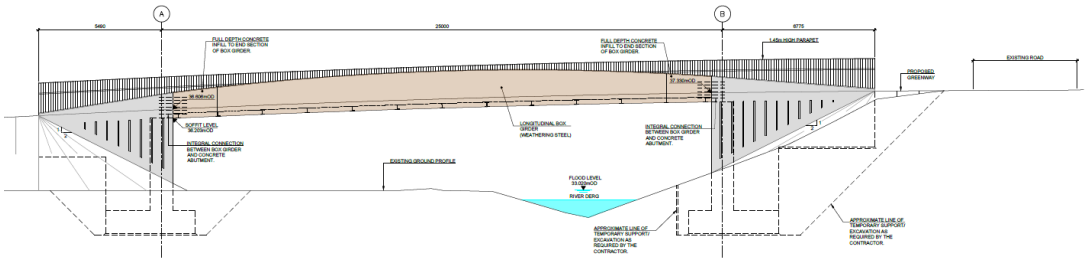


Figure 4-29 - Clogher River Bridge

- **Lowrymore River Bridge:** This is a single-span, 24m long structure connecting the Biddy's Trailhead to Biddy's O'Barnes pub. Due to the level change on both

riverbanks, the bridge maintains a 5% vertical gradient across its length. The plan alignment of the proposed structure is straight and features a 4m width between the parapet railings throughout. No in-river works are proposed for this structure. The deck consists of a symmetric u-frame with weathering steel box-girders forming the pair of above-deck longitudinal girders. Intermediate transverse beams are spaced at 1.5m centres. The deck consists of precast concrete deck slabs made composite with the transverse beams. The end supports consist of reinforced concrete abutment walls and bankseats. Pad foundations are proposed given the close proximity of rock to the existing ground level. The deck will be rigidly connected to the abutments and, as such, the structure is classed as integral (no bearings or movement joints).

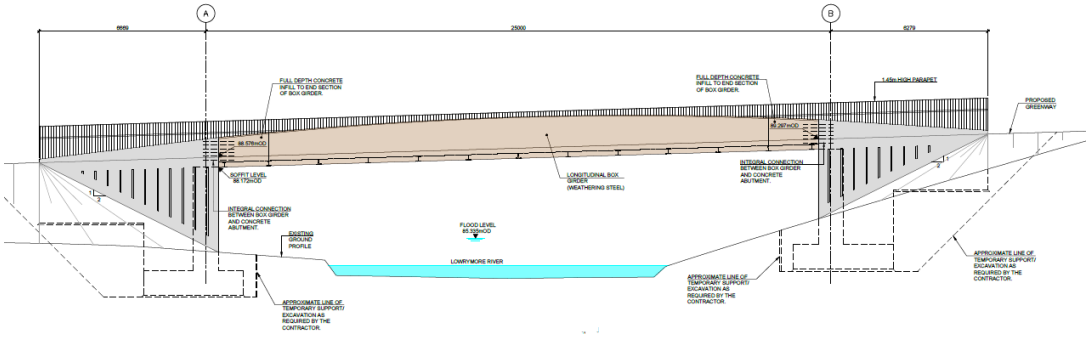


Figure 4-30 - Lowerymore River Bridge

- **River Finn Viaduct:** The proposal is to construct a new deck structure on the remaining piers from the old railway viaduct over the River Finn SAC. The overall length of this four-span structure will be approx. 54m in length; with intermediate spans of approx. 13.5m in length. To tie in with the existing piers, the deck is proposed to have a 4% vertical gradient in the longitudinal direction on the southern end span and a 2% gradient on the northern internal and end span. The high point of the bridge is at the southern internal span. The plan alignment is a gentle curve with a radius of 270m and maintains a 5m width between parapet railings. The deck consists of a precast concrete slab on a pair of lattice girders fabricated from weathering steel. This form has been chosen to echo the old railway viaduct which was of similar construction. In order to minimise the impact to the existing piers, the deck will be articulated with bearings at each pier and at the end abutments, the northern of which is the original abutment from the old railway bridge. The southern approach spans feature an S-curve to the west in order to avoid the rear garden of the dwelling to the immediate south of the viaduct. These spans comprise a precast concrete deck slab with steel beams (instead of the lattice beams over the river). The southern abutment will be reinforced concrete abutment wall and bankseat. Pad foundations are proposed given the close proximity of rock to the existing ground level.

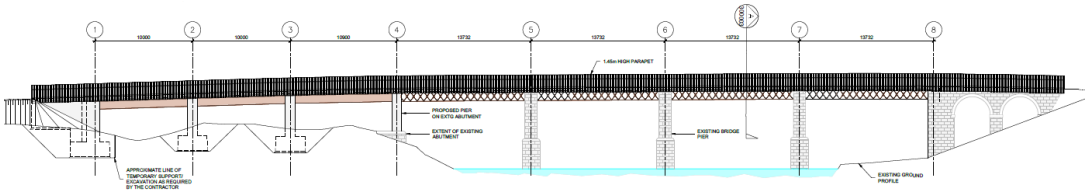


Figure 4-31 - River Finn Viaduct

4.3.7 Car Parks, Trailheads and Welfare Amenities

Ancillary Infrastructure along the route has been designed in line with the TII Publication DN-GEO-03047 Rural Cycleway Design and the Department of Transport, Tourism and Sports Greenways and Cycle Routes Ancillary Infrastructure Guidelines. This includes the provision of trailheads, rest areas, cycle parking, connections, lighting and wind breaks.

Trailheads are formal points of entry to the Greenway and are an integral part of the route experience. Four trailheads have been identified along the proposed development route in accordance with the minimum requirements as set out in Table 6.1 of DN-GEO-03047. At

these facilities it is proposed to provide car parking, as well as rest areas and bicycle parking. Additional facilities and amenities, including toilet facilities will be provided at some of the trailheads depending on the Level of Service (LOS), also in accordance with DN-GEO-03047. All the facilities at the trailheads will be accessible to disabled users, with dropped kerb access, tactile paving crossing, accessible parking and wider doors to access toilet blocks. The trailheads also include rest areas for users of the greenway in the form of picnic benches and seating as well as information boards displaying the greenway route and key information.

The Level of Service (LoS) refers to the appropriate provision required for any section of the route. The LoS is determined by the volume and type of likely demand along these sections, as shown in the Table below from the Ancillary Infrastructure Guidelines. The Rural Cycleway Design standards provide further detail on provision; maximum spacing between ancillary infrastructure and include a 'Level 4' LoS provision.

Figure 4-32 - Changing Places - Stormont, Belfast.

Figure 4-33 - LoS Level 4 Example, Limerick Greenway (Source – Limerick Greenway [Limerick Greenway | Limerick.ie])

Figure 4-34 - Rathkeale Trailhead, Limerick Greenway (Source – Limerick Greenway [Limerick Greenway | Limerick.ie])

Ancillary Infrastructure Level of Service (LoS) Levels				
Quality of Service	Typical Setting	Projected Main Users	Likely Demand Type	Level of Ancillary Infrastructure
Level 1	Large residential area and/ or a nearby busy visitor attraction.	High recreation and utility use for the community and visitors.	Walk, cycle, jog, pram, dog walk, Segway, wheelchair and other.	**Very High**. Most ancillary infrastructure elements are appropriate for these locations, and also including pocket recreation facilities such as playgrounds and refreshment points.
Level 2	Small residential area or a local minor visitor attraction.	Short duration cross community and/or visitors.	Walk, cycle, jog, pram, in-line, dog walk, Segway, wheelchair and other.	**High**. Most ancillary infrastructure elements are appropriate for these locations.
Level 3	Rural area with a low population, no significant visitor attractions.	Half or full day recreation, community members and visitors.	Mainly cycling with some walking.	**Low**. Some rest areas and arts pieces may be appropriate in addition to way finding and service signage.

Figure 4-35 - Ancillary Infrastructure Level of Service (LoS) Levels

In the towns of Donegal, and Ballybofey/Stranorlar, the LoS Level is Level 1. These are larger residential areas and/or are close to busy visitor attractions. The provisions provided in these towns are the main terminal points of the greenway and include an increased number of seats, bicycle parking, e-bike charging, toilet, drinking water, and car parking. A third Level 1 trailhead will be provided at Biddy's O'Barnes in the middle of the route.

At Lough Eske, a LoS Level 2 trailhead will be provided, and three LoS Level 3 rest areas will be provided along the route, meeting the demand for smaller residential areas and/or scenic and amenity areas. Level 4 rest areas will also be provided at regular intervals along the route. Further details on the provision at trailheads and rest areas is provided in the section below.

4.3.7.1 Trailheads

In accordance with DN-GEO-03047, which outlines the spacing and type of provision for ancillary infrastructure, the proposed route will have four trailheads, each of which will have varying numbers of car parking spaces available.

Table 6.1 of DN-GEO-03047 outlines the minimum provision of Level 1-4 ancillary infrastructure and the required amenities such as toilets, bins and shelters, and notes that parking capacity is to be determined on the basis of anticipated level of use. A demand analysis exercise has therefore been undertaken to determine the number of car parking spaces required. In Donegal Town and Stranorlar the area of the trailheads include existing car parking spaces; these have been included in the total numbers and further analysis has been undertaken to ensure capacity is adequate for both weekday and weekend greenway usage.

Refer to Table 4-8 below for the number of car parking provisions provided, Table 4-9 for ancillary infrastructure provided at Level 1 trailheads, Table 4-10 for ancillary infrastructure provided at the Level 2 trailhead and Table 4-11 for additional Level 3 ancillary infrastructure. Refer to Drawings Trailhead Layouts - 60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-LV-0001, 0002, 0003 & 0006 for proposed Trailhead layouts in Volume 3 of the EIAR.

Table 4-8 - Trailheads & Car Parking

Location	Regular spaces	Accessible spaces	EV charging spaces	Universal EV charging spaces	Minibus parking
Donegal Town	91 (includes 60 existing)	7 (includes 3 existing)	0	4	1
Lough Eske	30	2	0	0	0
Biddy's O'Barnes	30	2	2	0	1
Ballybofey/Stranorlar	89 (includes 33 existing)	4 (including 2 existing)	2	3	3

Table 4-9 - Level 1 Ancillary Infrastructure at Trailheads

Element	Donegal Town	Biddy's O'Barnes	Ballybofey / Stranorlar
Seating	4x Benches each seating 2 people; 8 total.	7x Benches each seating 2 people; 14 total.	4x Benches each seating 2 people; 8 total.
Waste collection (subject to agreement with maintaining organisation)	1x General mixed waste 1x Dry recyclable waste 1x Organic/food waste	1x General mixed waste 1x Dry recyclable waste 1x Organic/food waste	1x General mixed waste 1x Dry recyclable waste 1x Organic/food waste
Cycle parking	22x Standard bicycle parking in the vicinity of the seating/picnic tables.	10x Standard bicycle parking in the vicinity of the seating/picnic tables.	32x Standard bicycle parking in the vicinity of the seating/picnic tables.
	4x Accessible bicycle parking in the vicinity of the seating/picnic tables.	4x Accessible bicycle parking in the vicinity of the seating/picnic tables.	4x Accessible bicycle parking in the vicinity of the seating/picnic tables.
Picnic table (suitable for all users, regard shall be had toward CARA guidelines).	3x picnic tables each seating 4 people; 12 total.	8x picnic tables each seating 4 people; 32 total.	3x picnic tables each seating 4 people; 12 total.
Information tables and mapping	Map of the cycle network, locations of services and tourist attractions, information on flora and fauna, information on Built Heritage – architectural and archaeological, leave No Trace guidelines, telephone numbers for emergency services.		
E-bike charging (subject to agreement with maintaining organisation)	2x Electric bicycle parking	2x Electric bicycle parking	2x Electric bicycle parking
Shelter	1x Shelter covering 2x picnic table and sheltered from wind.	1x Shelter covering 3x picnic table and sheltered from wind.	1x Shelter covering 1x picnic table and sheltered from wind.
	1x Shelter covering 2x benches and sheltered from wind.	1x Shelter covering 2x benches and sheltered from wind.	1x Shelter covering 2x benches and sheltered from wind.
Water points	Drinking water source outside, accessible 24/7.		
Additional lighting	Provided in the vicinity of: picnic tables and shelter; toilets; and bicycle repair station.		
Toilets (subject to agreement with maintaining organisation)	2x toilets (including one Changing Places facility, baby changing facilities).	2x toilets (including one Changing Places facility, baby changing facilities).	2x toilets (including one Changing Places facility, baby changing facilities).
Bicycle repair	Air pump, bicycle mount, and set of tools for basic repairs: Allen keys, fork wrench set, screwdrivers, spoke spanner, chain tool.		
Restaurant / cafe / kiosk / supermarket	Directional signage to the services to/from the Greenway, as appropriate.		
Accommodation	Directional signage to the services to/from the Greenway, as appropriate.		
Connection to public transport	Directional signage to the services to/from the Greenway, as appropriate.		

Table 4-10 - Level 2/ Ancillary Infrastructure at Trailheads

Element	Lough Eske
Seating	3x Benches each seating 2 people; 6 total.
Waste collection (subject to agreement with maintaining organisation)	Leave no trace signage
Cycle parking	22x Standard bicycle parking in the vicinity of the seating/picnic tables.
	2x Accessible bicycle parking in the vicinity of the seating/picnic tables.
Picnic table (suitable for all users, regard shall be had toward CARA guidelines).	1x picnic tables each seating 4 people; 4 total.

Information tables and mapping	Map of the cycle network, locations of services and tourist attractions, information on flora and fauna, information on Built Heritage – architectural and archaeological, leave No Trace guidelines, telephone numbers for emergency services.
E-bike charging (subject to agreement with maintaining organisation)	N/A
Shelter	1x Shelter covering 1x picnic table and sheltered from wind. 1x Shelter covering 2x benches and sheltered from wind.
Water points	N/A
Additional lighting	N/A
Toilets (subject to agreement with maintaining organisation)	N/A
Bicycle repair	Air pump.
Restaurant / cafe / kiosk / supermarket	Directional signage to the services to/from the Greenway, as appropriate.
Accommodation	N/A
Connection to public transport	Directional signage to the services to/from the Greenway, as appropriate.

Table 4-11 - Additional Level 3 Ancillary Infrastructure

Element	River Eske Crossing	Lough Mourne (Rest Area)	Carrickmagrath
Seating	2x Benches each seating 2 people; 4 total.	3x Benches each seating 2 people; 6 total.	2x Benches each seating 2 people; 4 total.
Waste collection (subject to agreement with maintaining organisation)	Leave no trace signage	Leave no trace signage	Leave no trace signage
Cycle parking	8x Standard bicycle parking in the vicinity of the seating/picnic tables.	10x Standard bicycle parking in the vicinity of the seating/picnic tables.	8x Standard bicycle parking in the vicinity of the seating/picnic tables.
	1x Accessible bicycle parking in the vicinity of the seating/picnic tables.	1x Accessible bicycle parking in the vicinity of the seating/picnic tables.	1x Accessible bicycle parking in the vicinity of the seating/picnic tables.
Picnic table (suitable for all users, regard shall be had toward CARA guidelines).	1x picnic tables each seating 4 people; 4 total.	2x picnic tables each seating 4 people; 8 total.	1x picnic tables each seating 4 people; 4 total.
Information tables and mapping	Information to be provided on the immediate surroundings of the context or area on as-needed basis (e.g. a landmark).	Information to be provided on the immediate surroundings of the context or area on as-needed basis (e.g. a landmark).	Information to be provided on the immediate surroundings of the context or area on as-needed basis (e.g. a landmark).
E-bike charging (subject to agreement with maintaining organisation)	N/A	N/A	N/A
Shelter	N/A	N/A	N/A
Water points	N/A	N/A	N/A
Additional lighting	N/A	N/A	N/A
Toilets (subject to agreement with maintaining organisation)	N/A	N/A	N/A
Bicycle repair	N/A	N/A	N/A

Element	River Eske Crossing	Lough Mourne (Rest Area)	Carrickmagrath
Restaurant / cafe / kiosk / supermarket	N/A	N/A	N/A
Accommodation	N/A	N/A	N/A
Connection to public transport	N/A	N/A	N/A

4.3.7.1.1 Donegal Town Trailhead Car Park

It is proposed to develop a trailhead at the start of the greenway in Donegal Town, to include part of the lands adjacent to the St John Bosco Community Centre and the lands north of the existing Railway Park road. Railway Park will be realigned to the north to maximise the space that can be utilised by the trailhead. It will include a car park which will have a total of 103no parking spaces, including EV and accessible spaces, and there will also be provision for bus pull in bays to the western side of the trailhead. Vehicles will access the car park from Tirchonaill Street, next to the St. John Bosco Community Centre. This trailhead is located at least 208m northeast of the Lough Eske and Ardnamona Wood SAC boundary, 309.5m northeast of the Donegal Bay (Murvagh) SAC boundary and 307m northeast of the Donegal Bay SPA boundary and at its closest point. There are no hydrological connections from this trailhead to these European designated sites.

4.3.7.1.2 Lough Eske Trailhead Car Park

It is proposed to develop a trailhead in the forestry area southwest of Lough Eske. The car park utilises an existing access road and car park. The access road and car park is currently unpaved and accessed from the local road. The car park will have 32no spaces, 2 of which is for accessible parking, 0 for EV charging, 0 minibus spaces, and has a surface area of 515m^2. This trailhead is located at least 240m north of the Lough Eske and Ardnamona Wood SAC boundary at its closest point. There are no hydrological connections from this trailhead to the Lough Eske and Ardnamona Wood SAC.

4.3.7.1.3 Biddy's O'Barnes Trailhead Car Park

It is proposed to develop a trailhead adjacent to Biddy's O'Barnes, northeast car park for the pub. The trailhead shares an existing access road from the N15, with a separate access into the car park itself. The car park will have 35no spaces, 2 of which are for accessible parking, 2 for EV charging, 1 minibus space, and has a surface area of 960m^2. This trailhead is located at least 1.1km northeast and 1.5 km upstream of the Lough Eske and Ardnamona Wood SAC boundary via the Lowerymore River.

4.3.7.1.4 Ballybofey/Stranorlar Trailhead Car Park

It is proposed to develop a trailhead in Ballybofey/Stranorlar. The trailhead will incorporate state owned lands east of The Base enterprise centre and the existing car park for the enterprise centre. The car park will have 101no spaces, including EV and accessible spaces, and 3no minibus spaces. The car park is accessed from Railway Road. This trailhead is located at least 150m north of the River Finn SAC boundary at its closest point. There are no hydrological connections from this trailhead to the River Finn SAC.

4.3.7.2 Rest Areas

In addition to the Level of Service (LoS) Levels 1, 2 and 3 trailheads and rest areas, outlined in Section 4.3.7.1, there are a number of Level 4 rest areas proposed along the route. As per the requirements of the Rural Cycleway Design standards, these are located at a maximum spacing of 2km. Where feasible, and in areas of particular scenic beauty, they are proposed at more regular intervals. They have also been provided at locations where the greenway user may need to exert more effort due to the vertical profile.

Minimum provision at Level 4 rest areas is proposed to be seating and bike parking for 2 people, as per the requirements of the Rural Cycleway Design standards. Some Level 4 rest areas may be upgraded to include a picnic table or information signage.

In total there are 21no Level 4 rest areas proposed, and these are shown on General Arrangement Drawings Nos. 60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-HG-0096 – 0126 (Refer to Volume 3 of the EIAR).

4.3.7.3 Welfare Amenities

Sanitary facilities will be provided at Donegal Town, Biddy's O'Barnes, and Ballybofey/Stranorlar, and will include toilets, accessible toilets and baby changing facilities. A Changing Places toilet will be provided at the trailheads in Donegal Town and Ballybofey/Stranorlar. Changing Places are larger, accessible restrooms that have the correct equipment, including a hoist and changing bench, designed to support those who need assistance. These facilities will be maintained and serviced by Donegal County Council. In accordance with PE-PMG-02047 and DN-GEO-03047, toilet facilities will be composting 'dry' toilets.

Picnic tables are proposed at each Level 1, 2 and 3 trailhead/rest area, and provision of shelter and drinking water is proposed at Level 1 trailheads.

4.3.7.4 Waste Management

Waste facilities are proposed at each of the Level 1trailheads. Bins (to include dry recyclable waste and food waste) will be provided and serviced by Donegal County Council.

Waste bins, which will also function as dog fouling receptacles, will also be located at the 3 major trailheads. Donegal County Council will be responsible for the waste management of these bins and receptacles.

'Leave No Trace' signage will be provided at the Level 3 and Level 4 rest areas.

4.3.8 Scheme Drainage

4.3.8.1 General

The drainage design for the proposed greenway will be designed in accordance with the following TII publication standards:

- Transport Infrastructure Ireland (February 2025) *Rural Cycleway Design (Offline & Greenway) DN-GEO-03047;*
- Transport Infrastructure Ireland (February 2024) *Drainage Systems for National Roads DN-DNG-03022*;
- Transport Infrastructure Ireland (June 2015) *Drainage of Runoff from Natural Catchments (including Amendment No.1 dated June 2015) DN-DNG-03064*
- Transport Infrastructure Ireland (June 2015) TII Edge of Pavement Details *(including Amendment No.1 dated June 2015) DN-DNG-03062*.

As per TII DN-DNG-03022, the design intent is to achieve the efficient removal of surface water to provide safety, provide effective sub-surface drainage to maximise the lifespan of the pavement and earthworks, and minimise the impact of the runoff on the receiving environment.

To achieve those three major objectives, the proposed greenway will utilise:

- New over-the-edge drainage ditches for the interception of surface water from the greenway
- New pre-earthworks drainage ditches for the interception and diversion of surface runoff from adjacent land away from the greenway.
- New filter drains within the verge where the greenway is in cut.
- New carrier drains where surface water needs to be conveyed below roads.
- Attenuation swales for the attenuation of runoff from the greenway surface.

- Pipe or box culverts where the greenway crosses watercourses and field ditches and bridge structures for major watercourse crossings.
- If there are any locations where existing ditches can be utilised, these may be incorporated into the drainage design if the capacity within the channels is sufficient for the flows.
- For trailheads, the design will include for permeable, flood resilient materials such as Grasscrete or similar porous paving for new areas of car parking and resin bound gravel for new areas of congregating spaces. Additional impermeable surfacing will be minimised and attenuation in the form of swales or basins will be provided.

The greenway drainage design is shown on Drainage Drawings 60701883-ACM-HDG-SW_ZZ_ZZ_ZZ-DR-DR-0001 – 0031 and Trailhead drainage design at Donegal Town is shown on Trailhead Drainage Drawing 60701883-ACM-HDG-SW_ZZ_ZZ_ZZ-DR-DR-0053 in Volume 3 of the EIAR.

4.3.8.2 Existing Environment

The Barnesmore Gap Greenway is located within Barnesmore Gap, between Donegal and Ballybofey and crosses several watercourses that discharge to Lough Eske, Lough Mourne, the Finn River, the Mourne Beg River, or the Atlantic Ocean. The greenway is located within the Donegal Bay North (HA37) hydrometric area and the Foyle hydrometric area (HA 01).

The Donegal Bay North catchment drains a total area of 804km^2. The catchment is divided into five sub-catchments and has 72 surface water bodies. The Foyle catchment drains a total area of 2,919km^2 and is divided into nine sub-catchments with 41 river waterbodies.

Some of the watercourses crossed or in close proximity to the proposed greenway include the River Eske, Drumrooske Middle Stream, Drumbrooske East Stream, Limestone Brook, Clardrumbarren Stream, Carbbeagh Stream, Clogher River, Lowrymore River, Milltown Stream, Mullanalamphry Stream, Keadew Lower Stream, Barrack Hill Stream, Mourne Beg Stream, Cashelnavean Stream, Burn Daurnett, Sessiagh Stream, and the River Finn.

4.3.8.3 Drainage Outfalls

The vertical geometry of the proposed greenway and the location of watercourses has dictated the outfall locations. The surface water runoff will be attenuated in a swale or infiltration trench and released to adjacent watercourses at the greenfield runoff rate to mimic the existing hydraulic conditions and minimise impacts on the receiving environment. As per DN-DNG-03022, the return period for greenfield runoff rate is the 1 in 100 year storm event, calculated using the IH124 method, taking into account catchment area, soil conditions and rainfall values. There will be no requirements for small scale bank works (e.g. construction of new engineered outfalls) at WFD waterbodies.

Where ditches or filter drains are required to convey the runoff from adjacent land, these will run adjacent to the greenway at the toe of the earthworks slopes and will discharge to the nearest watercourse, following the topography of the existing ground.

The drainage outfalls are shown on Drainage Drawings 60701883-ACM-HDG-SW_ZZ_ZZ_ZZ-DR-DR-0001 – 0031 (Refer to Volume 3 of the EIAR).

4.3.8.4 New Greenway Drainage

Drainage will largely consist of over the edge drainage along the length of the development. Along the abandoned railway corridor, existing ditches will be cleaned and regraded and attenuation swales added to control runoff to existing watercourses. In offline sections the drainage has been designed to connect to existing watercourses, making use of existing drainage channels as far as possible and providing new attenuation. In some areas, pre earthworks drainage is required at the toe of the embankment to catch runoff from adjacent lands, this will be in the form of filter drains or ditches. Filter drains will also be provided where the greenway is in cut, and carrier drains in situations where the outfall from the swale may have to cross the greenway prior to enable discharge to a watercourse.

Swales are shallow, vegetated ditches designed to manage surface water runoff, prevent erosion, and enhance water quality. Detention basins are vegetated depressions that attenuate surface water runoff by providing temporary storage and a controlled release of runoff. These will be installed along the greenway route, particularly in areas where natural drainage solutions are needed. Both the swales and detention basins are designed with 1:4 side slopes for improved maintenance access and safe egress.

Infiltration trenches are linear excavations usually filled with permeable granular material, that allows for the temporary storage of water before it infiltrates into the ground. These will be installed along the greenway route where space is constrained and the provision of a swale is not feasible.

A crossfall of 1% has been provided along the length of the greenway pavement to facilitate drainage and prevent standing water. Crossfall on verges will be kept to a minimum to allow for infiltration and to limit the overall runoff.

Where the proposed greenway intercepts a watercourse, a pipe, box culvert, or clear span bridge structure will be required to maintain the connectivity of watercourses. Where suitable habitat for fish is present in a watercourse, the invert of the culvert will be embedded. The size of the watercourse will also dictate whether a culvert or bridge is required. Where pipes, culverts, and bridges are required as part of the greenway drainage design, an application has been made to the Office of Public Works (OPW) for Section 50 consents where required. All relevant Section 50 approvals have been obtained.

Table 4-12 outlines the watercourse crossings which require Section 50 consent. All crossings have been reviewed to ensure adequate cover has been provided above the structure.

Table 4-12 - Watercourse Crossings - Section 50

Crossing Reference	Structure Reference	Chainage	Watercourse Name	Arterial Drainage Channel	Structure Type	Diameter (m)
C3	PC03	Clar Link 350	Unnamed	NO	Circular	1.35
C5	S04	Lough Eske Loop 55	River Eske	NO	Bridge	N/A
C10	PC07	2940	Unnamed	NO	Circular	1.2
C11b	PC08	4275	Unnamed	NO	Circular	1.5
C12	PC09	4820	Carbbeagh	NO	Box Culvert	1.83
C13	PC10	5330	Drumnagahan	NO	Circular	1.2
C15	PC11	6420	Milltown	NO	Circular	1.5
C16	S06	6670	River Derg	NO	Bridge	N/A
C17	PC13	6800	Unnamed	NO	Circular	1.2
C18	PC14	6970	Unnamed	NO	Circular	1.5
C19	PC15	7220	Unnamed	NO	Circular	0.9
C29	S10	Biddy's 200	Lowerymore River	NO	Bridge	N/A
C51	PC17	25050	Unnamed	NO	Box Culvert	1.8
C56	S20	29470	River Finn	NO	Bridge	N/A

In addition to the major watercourse crossings outlined above, there are a number of smaller crossings of ditches and minor watercourses. These include 68 No. existing culverts/bridges and 34 No. new crossings.

4.3.8.5 Trailhead Drainage

The proposed trailheads will be designed to maximise permeable surfacing where possible, in order to reduce the runoff rate, reduce level of attenuation required and minimise the risk of flooding. Where additional impermeable surfacing is proposed, drainage will be attenuated

by a swale or a basin and released at the greenfield runoff rate to mimic the existing hydraulic conditions and minimise impacts on the receiving environment.

All new car parking areas are proposed to be constructed from a cellular porous paving solution such as Grasscrete or Truckcell, which provides approximately 90% permeability and captures hydrocarbon spills such that each pocket can be emptied and refilled with soil/grass seed in the event of die-back. A small number of gullies will be provided to account for the slight reduction in permeability, and these will convey runoff to attenuation swales or basins prior to discharge.

There are areas of existing impermeable car parking (bitumen macadam) at the Donegal Town and Stranorlar trailheads, which are proposed to be retained along with the existing drainage regime.

At Donegal Town, where the existing Railway Road is proposed to be realigned with new gullies installed, a petrol interceptor will be installed prior to discharge to an attenuation pond. To provide some betterment, the drainage regime for the existing car park will be formalised to include for gullies at surface level and attenuation to greenfield runoff prior to discharge.

For the amenity areas where greenway users will congregate, permeable resin bound gravel is proposed to minimise the impact of additional runoff. Sections of the greenway that are in areas at higher risk of flooding will be surfaced with permeable asphalt paving.

The drainage design for the trailhead at Donegal Town is shown on Trailhead Drainage Drawing 60701883-ACM-HDG-SW_ZZ_ZZ_ZZ-DR-DR-0053 in Volume 3 of the EIAR.

4.3.9 Earthworks

4.3.9.1 Scope of Earthworks

The proposed scheme will involve extensive earthworks to construct the greenway alignment, trailheads, drainage systems, and associated infrastructure elements including new structures. Key activities include:

- Excavation: Removal of vegetation, topsoil, subsoil and rail ballast (where present and required) along the abandoned railway corridor and offline greenfield sections.
- Cut and Fill: Grading to achieve proposed greenway profile, including embankments and cuttings.
- Material Reuse: Reuse of suitable excavated materials (e.g., topsoil, subsoil) for boundaries, verges and embankments.
- Import/Export: Import of suitable materials (e.g., surface course, sub-base, crushed stone for capping) and export of unsuitable materials (e.g., contaminated soil, vegetation).

4.3.9.2 Ground Investigations

A ground investigation (GI) programme was conducted along the proposed scheme to assess subsurface conditions and inform the design of earthworks and related geotechnical aspects of infrastructure elements including new structures. The investigation was carried out by Northwest Geotech Ltd on behalf of ROD-AECOM. The GI programme consisted of a combination of windowless sampler (WS) boreholes, cable percussion (CP) boreholes, trial pits (TP) and dynamic probes (DP), with a total of 27 boreholes (12 no. WS and 15 no. CP), 53 no. TP and 33 no. DP completed across the scheme. Lab testing was carried out on samples comprising general material classifications, environmental / ground aggressivity classification and earthworks compaction/CBR tests.

The subsurface profile generally consists of three main layers. The near-surface layer, ranging up to 3.2m in depth below ground level (BGL), comprises of topsoil and Made Ground. Made Ground occasionally contains materials such as concrete, bricks and plastic pipes, particularly in urbanised areas. These materials were also identified in some of the trial pits, requiring careful excavations and waste management during construction.

Following topsoil and Made Ground units, very soft to firm slightly sandy slightly gravelly silty clays/clayey silts with high organic content and spongy pseudo-fibrous peat units are encountered up to a depth of 6.5m BGL. Thicknesses of these soils reach up to 3m and they occasionally consist of roots, plant material and decaying timber.

The deeper layers are dominated by medium dense to very dense/firm to stiff glacial tills, which consists mainly of sand and gravel deposits. Boulder layers are frequently encountered, leading to refusal in several boreholes and trial pits.

Observations from the GI programme also indicate the presence of groundwater at depths of between 0.3 and 5.0m BGL in some boreholes and trial pits, as evidenced by water strikes and seepages, respectively. Refusal due to dense gravels/cobbles and boulders are common, particularly in glacial till zones. Soft ground areas consisting of peat and organic soils will need to be treated with care. As given in the next subsection, use of geotextile reinforced unbound granular layers will be required to ensure stability of embankments. Steep slopes in areas with dense gravel and boulders may require retaining or reinforced soil solutions.

4.3.9.3 Embankments and Slopes

The embankments and slopes along the greenway are designed to ensure stability and safety. The typical slope ratio for embankments and slopes is 1V:2.5H in greenfield sections and 1V:2H along the railway line, although these may be steepened up to a range of 1V:1H to 2.5V:1H in constrained areas with the use of reinforcing elements (e.g., geosynthetics, soil nails, anchors) to maintain stability.

Embankments will be constructed in layers, with each layer being compacted to required compaction/density level before the next layer is added. This will ensure the long-term stability of the embankments. In addition, per DN-GEO-03047-03 Rural Cycleway Design (Offline & Greenway) (TII Publications, August 2022), the use if geotextile reinforced unbound granular layers will be utilised to cross very soft ground including peatlands. Refer to Section 4.5.7 for the construction methodology and description of construction works.

4.3.9.4 Material Balance and Quantities

The earthworks for the proposed scheme will involve both cut and fill operations to achieve the desired vertical and horizontal alignment of the greenway route. The primary objective is to balance the cut and fill volumes as much as possible to minimise the need for importing or exporting materials, thereby reducing the environmental impact and construction costs.

A significant design basis for the greenway is the re-use of existing earthworks along the abandoned railway line as far as practicable. Additional cut/fill operations along the railway line have been kept to a minimum, with the exception of areas particularly constrained with respect to width or for the construction of new structures such as the national road underpasses.

Where required, cut operations will primarily consist of topsoil, subsoil including peat, and in some areas rock. The topsoil will be stripped and stored separately for reuse in landscaping and verge construction. The remaining excavated material will be used for fill operations where required. Fill material will be required to construct embankments and level the greenway route. It is anticipated that this fill will all be sourced from the cut operations. In addition, surface, sub-base and capping layers will be formed by the selected imported material.

The Cut/Fill volumes for the proposed route can be found in Table 4-13. Plan and Profile Drawings 60666974-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-CH-0057 to 0081 shows the areas of cut and fill along the length of the scheme (Refer to Volume 3 of the EIAR).

Table 4-13 - Cut/Fill Volumes – Material Balance

Cut/Fill	Volume (m^3)
Cut*	105,000
Fill*	75,000

Cut/Fill	Volume (m^3)
Net (Cut)*	30,000

**Volumes estimates calculated using Autodesk Civil 3D. Comparison between proposed surface level and existing ground surfaces, with additional cut volumes calculated for capping, sub-base and pavement make-up.*

To prepare the preliminary quantity estimate, the width of the greenway is assumed to be equal to 3.0m or 4.0m for surfacing, with an additional 0.5m added for sub-base and 1.0m added for capping quantities estimations. Capping and sub-base quantities are calculated based on the use of the railway ballast where it exists in situ. Topsoil quantity is estimated by taking width of the greenway as 5.0 to 6.0m including allowance of 1.0m for each verge.

The design assumes approximately 60-70% of excavated material on site is acceptable fill and can be incorporated into the works, based on the GI and ground conditions observed on site. Any surplus material, including topsoil, will be reused on site as landscaping or general fill for the construction of verges, softening earthworks slopes and for the grading of ancillary infrastructure.

Table 4-14 shows the calculated material balance of the proposed greenway.

Table 4-14 - Material Balance

Material Import	Volume (m^3)	Comments
Surface	2,150	
Base/Binder	5,400	
Subbase	19,500	
6F2 Capping	23,500	
Class 1/2 Acceptable Fill	0	Fill required will be sourced on site from the volumes of cut
Drainage Aggregate	19,000	
Topsoil (On site storage)	**Volume (m^3)**	**Comments**
Topsoil	15,800	All topsoil to be reused on site

Table 4-15 shows the expected HGV trips associated with the import of material. Sectional analysis of the scheme, covered further in Section 4.5.7, shows that the majority of the earthworks operations are in Sections 1 and 3, where there are more offline greenfield sections. Some surplus material from Section 1 will be required in Section 2 and 3. It is assumed that this will be moved using the local road network and has therefore been added to the total HGV trips in the table. Trips have been doubled as it is expected that each trip will include a return journey where the HGV will be empty.

Table 4-15 - HGV Trips

Import/Export	No. of Trips	No. of Journeys
Import (pavement and capping)	4,250	8,500
Import (drainage and other construction materials)	1,750	3,500
Additional movements using public road network between areas of site (earthworks)	650	1,300
Total	**6,650**	**13,300**

4.3.9.5 Topsoil Management

Topsoil will be stripped from the construction area and stored in designated stockpiles in compounds and temporary working areas, for reuse in landscaping and verge construction. The topsoil will be managed to prevent contamination and erosion, with stockpiles being covered to protect them from wind and water erosion.

4.3.9.6 Environmental Considerations

The earthworks will be carried out in accordance with best practice guidelines to minimise environmental impact. This includes the use of erosion control measures, to prevent soil runoff into nearby watercourses. Additionally, all excavated material will be managed in accordance with waste management regulations, with any contaminated material being disposed of at licensed facilities.

The route is also designed to follow the existing topography and the abandoned railway line as much as possible to reduce the need for extensive earthworks and minimising disturbance to the natural landscape. Landscape Mitigation Plan Drawings 60701883-ACM-ELS-SW_ZZ_ZZ_ZZ-DR-LV-0001-0031 outline vegetation to be removed and retained, as well as additional planting to be undertaken to restore the landscape upon completion of the earthworks.

4.3.9.7 Waste Management

Materials and waste arising from the proposed development will be managed in accordance with the principles of the waste management hierarchy as outlined in the European Waste Framework Directive (Directive 2008/98/EC as amended, including by Directive 2018/851/EU), as transposed into Irish Law by the European Communities (Waste Directive Regulations 2011 (SI No.126 of 2011), as amend by the European Union (Waste Directive) (Amendment) Regulations 2016 (SI No. 315 of 2016) and the European Union (Waste Directive) Regulations 2020 (SI No. 323 of 2020) i.e. prevention, reduction, preparing for reuse, recycling, other recoveries, and, as the least preferred option, disposal (which includes landfilling and incineration without energy recovery).

As indicated in Section 4.3.9, any surplus excavated material, including topsoil, will be reused on site as general fill for the construction of verges, softening earthworks slopes and for the grading of ancillary infrastructure requiring no off site management.

The proposed development will require the demolition of six buildings (mainly farm outbuildings) and a livestock pen, as outlined in Table 4-16. The composition of the specific waste streams arising will be determined by surveys (including asbestos survey), but the preliminary estimates include a volume of mixed construction and demolition waste included in Table 4-17.

Table 4-16 - Demolitions

Chainage	Type
Eske Loop 1750	Uninhabited dwelling
Eske Loop 2450	Cattle crush
4200 (south of greenway along access route)	Farm outbuildings
24720	Farm outbuildings
24890	Farm outbuildings
26300	Farm outbuildings
Sessiaghoneill 200	Farm outbuildings

Table 4-17 below outlines the waste types, sources and quantities from the proposed development.

Table 4-17 - Waste Type, Source(s) & Quantities

Waste Type	Source(s)	Estimated Quantity	Action
(Surplus) Soil	Excavation for greenway alignment	60,000t	To be reused on site for the construction of verges, embankment slopes and landscaping
Construction waste including concrete, steel, timber and paint	Construction and repair of structures, shuttering, temporary	45t	Material procurement to be optimised to reduce concrete

Waste Type	Source(s)	Estimated Quantity	Action
	signage, fencing, road markings		waste, timber shuttering to be reused. Any excess material to be segregated and disposed of appropriately
Demolition waste, mixed waste	Demolition of outbuildings/farm sheds	400t	To be reused where possible as mass fill/aggregate on site. Segregated skips to recycle other material. Hazardous waste to be disposed of at licensed facility
Demolition waste, mixed waste	Pavement arisings from Railway Road	1080t	To be reused as aggregate on site
Non-hazardous waste, such as plastic, paper / cardboard and food waste	Offices, packaging, canteens and welfare facilities	6t	Inclusion of recycling facilities in site compounds
Oils/Hydrocarbons	Unused fuel and oil changes from machinery and plant	<1t	Appropriate storage, mitigation measures including spill kits

Any contaminated vegetation (Invasive Species) will be managed in accordance with the Invasive Species Management Plan in Appendix G of the CEMP (Appendix 4.1). This will include disposal to authorised facilities by licensed waste carriers and applications for necessary licenses. Other vegetation cleared will be mulched and/or composted. The Ballynacarrick Landfill at Ballintra, 10km south of Donegal Town, is the closest licensed waste disposal site to the proposed development as identified by EPA.

4.3.10 Utilities and Services

4.3.10.1 Existing Services

Information regarding utilities and services was collated from various utility providers, and these have been reviewed against the proposed development. Where the proposed development clashes with existing utilities and services, these will be addressed by a combination of permanent diversions, lowering/raising of the service or protection in place. Uisce Éireann and ESB have been consulted with respect to potential clashes, and the greenway alignment has been designed to avoid clashes with existing services where possible.

The following potential utility clashes have been identified:

Table 4-18 - Potential Utility Clashes

Utility Provider	Location	Chainage	Type
ESB, UE, Eir	Donegal Town Trailhead	0	Various
Eir	Mainline	870	Underground Duct
UE	Mainline	870	Water main
ESB	N56 Underpass	1060	Underground Cable
ENET	N56 Underpass	1060	Underground Duct
UE	N56 Underpass	1060	Water main
Eir	N56 Underpass	1090	Underground Duct
Eir	Mainline	1810	Underground Duct
Eir	Mainline	3230	Underground Duct
UE	Mainline	3240-3350	Water main

Utility Provider	Location	Chainage	Type
Eir	Mainline	3350	Underground Duct
UE	Mainline	4990	Water main
Eir	Mainline	6125	Underground Duct
ESB	Mainline	8490	Underground Cable
UE	Mainline	10000-10190	Water main
ESB	Mainline	16140	Underground Cable
ESB	Mainline	18320	Pole
ESB	Mainline	18730	Pole
ESB	Mainline	19035	Pole
ESB	Mainline	19150	Pole
ESB	Mainline	20160	Pole
ESB	Mainline	20420	Pole
UE	Mainline	20700	Manhole
UE	Mainline	21040-21190	Water main
UE	Mainline	21305-21335	Water main
UE	Mainline	24750-25005	Water main
Eir	Mainline	25420	Underground Duct
UE	Mainline	26420	Water main
ESB	Mainline	27400	Pole
Eir	Mainline	28945	Underground Duct
UE	Mainline	28945	Water main
ESB	Mainline	28945	Underground Cable
ESB, UE, ENET, Eir	Stranorlar Trailhead	30060	Various
UE	Clar Spur	520	Water main
ESB	Lough Eske Loop	50	Overhead Line
Eir	Biddies	255	Underground Duct
UE	Goland	15	Water main
ESB	Goland	230	Pole
Eir	Sessiaghoneill Link	180	Underground Duct
ESB	Ballybofey Link	15	Pole

The proposed development crosses numerous other overhead utilities, but at this stage it is expected that they will remain in place and can be accommodated by the development.

4.3.10.2 New Services

New multi-use longitudinal ducting will be provided as part of the scheme between Ch.850 – 10350, for future service provision.

4.3.11 Signage

Clear directional signage will be provided along the route to help with wayfinding. Road markings and signage at road crossings will be in line with Figure 5.1 and Figure 5.2 of TII DN-GEO-03047 as shown below in Figure 4-36 and Figure 4-37.

Traffic Signs and markings shall be provided in accordance with TSM. Combination of signs and markings may vary depending on layout of cycleway crossing.

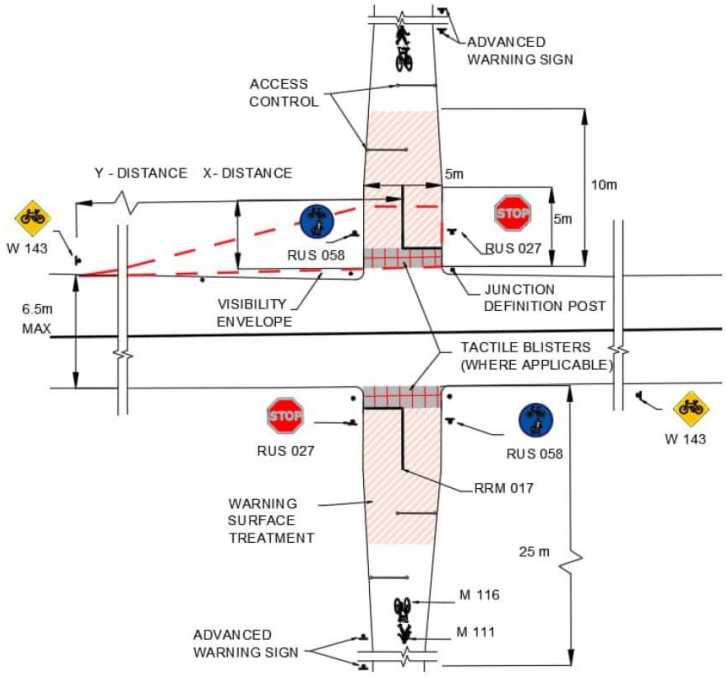


Figure 4-36 - Local & Regional Road Carriageway Crossing Detail

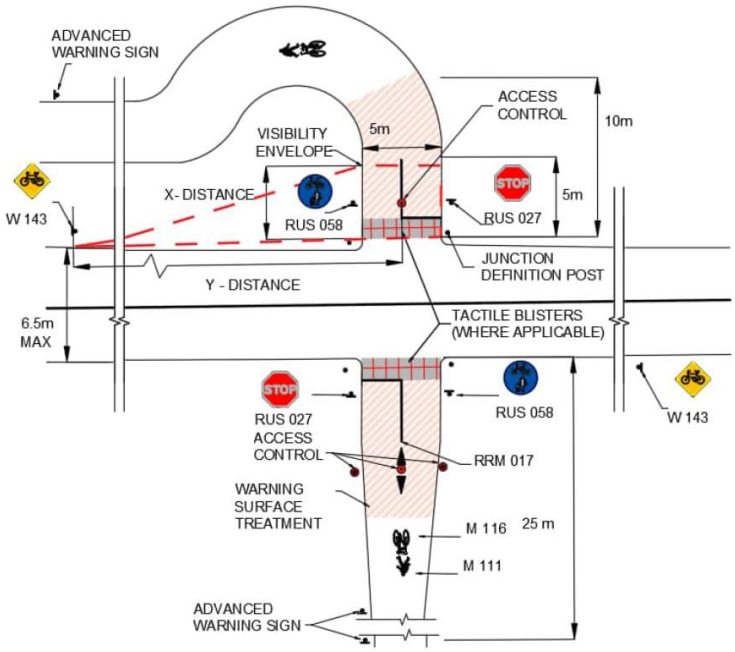


Figure 4-37 - Jug Handle Crossing Detail

Any signs on public roads to direct users to the greenway will be in line with Department of Transport Tourism and Sport's *'Greenway Design and Brand Guidelines'* (2018) as shown in Figure 4-38 below. These will be used to direct users to the main entry and egress trailheads along the greenway and will commence at the nearest town, village or junction with the nearest national road. Where possible, existing poles will be re-used to reduce sign clutter.

Figure 4-38 - Example Statutory Direction Signs

At road crossings, direction signage will be in line with Figure 4-39 below, which shows an example of the new NCN branding.

Figure 4-39 - On Road direction signage

Along the route there will be on route directional signage will be used where deemed necessary to help guide users. These will be in line with Figure 4-40.

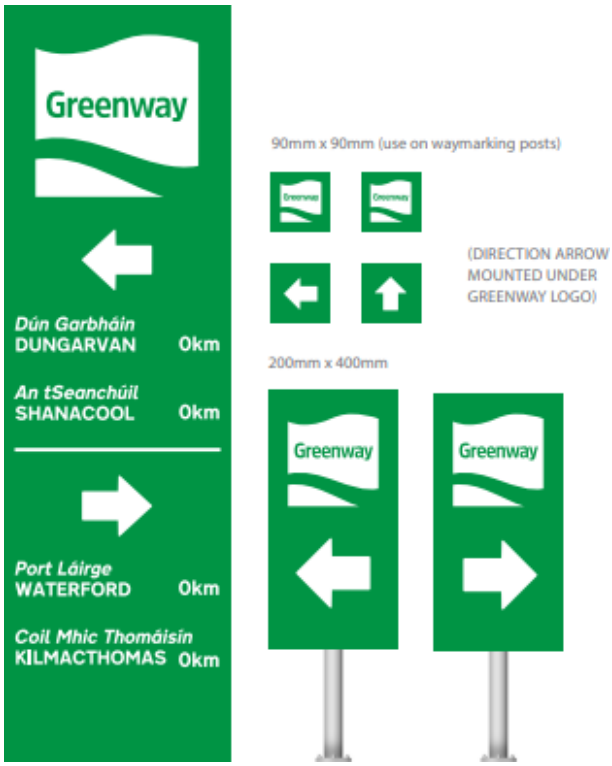


Figure 4-40 - On route directional signage

At the four trailhead locations, information panels will be constructed in line with the Department of Transport Tourism and Sport's *'Greenway Design and Brand Guidelines'* (2018) and '*Greenways and Cycle Routes Ancillary Infrastructure Guidelines'* (2022). These will be A0 or double A1 in size and will contain a map of the route with a "you are here" pointer along with information on distances to destinations. There will be an easily identifiable scale on the map in kilometres and towns and villages along the route will be identified. At trailheads and rest areas on or near the abandoned railway line, information boards will also highlight the history of the railway and the story of the route.

Warning signs will be provided to require that dogs are maintained on a leash for the duration of their visit to the greenway, and that dog owners are required to pick up and dispose of dog excrement using the bins provided. Educational signage will also be provided alerting dog owners to the environmental impacts that dog excrement can have on water bodies and habitats if it is not collected and is washed away naturally.

4.3.12 Lighting

The majority of the proposed development will not be lit, however lighting is proposed in the trail heads at Donegal Town, Biddy's and Stranorlar, as well as the lengths of greenway closest to the towns; Ch.0-1050 (Donegal Town) and Ch.27500 – 30050 (Ballybofey/Stranorlar and Sessiaghoneill link).

Where lighting is to be provided along the greenway, provision will be in accordance with the Bat Conservation Trust guidance (BCT, 2023), to include the following elements:

Lighting will be a warm-white colour of 2200K or less.

Lighting will be LED and have no upward light spill and a sharp horizontal cut off.

Lighting outside the intended area of illumination will be minimised. Where light spill cannot be avoided, louvres, cowls or shields will be fitted to the columns.

Lux levels on roads and paths will be set to the minimum required by BS 5489-1:2020, P4.

Low level lighting such as bollards will be incorporated where possible.

Consideration will be given to switch off of lighting during certain hours at night.

Lighting will also be provided in underpasses along the route to maintain user safety. It is not anticipated that lighting will be required at minor side road crossings.

4.3.13 Landscaping

The majority of the preferred route follows either the abandoned railway corridor or field boundaries in offline sections. In these scenarios existing treelines and hedgerows will be retained in place, both side along the railway line and on one side in offline sections. In offline sections, new native hedgerows will be planted alongside the other side of the greenway to reinforce or re-establish traditional field boundaries.

There are some offline sections (Ch.3800 – 4050, Ch.6450 – 6600, 27300 – 27550, 29600 - 29800) where the preferred route does not follow an existing field boundary, due to topographical constraints or landowner preference. In these cases, new native hedgerow will be planted on both sides of the proposed greenway, where a new field boundary is required. Species rich grass will be sown on the slopes of embankments and cuttings, and blocks of native woodland will be planted at periodic intervals where land is available.

In offline sections in woodland, existing vegetation will be retained alongside the greenway.

In areas transitioning towards urban edges or more developed settings, the scheme will incorporate native woodland belts to soften the interface between the greenway and adjacent built form, while contributing to visual screening and long-term landscape structure.

At the urban trailheads, landscape interventions include structural planting around car park perimeters to soften the visual presence of hard surfacing and built elements such as signage and bathroom facilities. For the intermediate rural trailheads, a more discreet approach has been adopted. These are located in areas with some degree of natural screening – where

small, wooded areas or existing planting provides visual containment. New tree and shrub planting will be introduced where necessary to bolster this screening and to create a sense of enclosure appropriate to the scale and character of the surrounding landscape. Car parking areas will be surfaced with permeable, visually recessive materials such as cellular grass paving to reduce glare and prevent a stark visual contrast with surrounding vegetation. The landscaping design is shown on Landscape Mitigation Plan Drawing Nos 60701883-ACM-ELS-SW_ZZ_ZZ_ZZ-DR-LV-0001-0031.

4.3.14 Accessibility for Mobility Impaired Users

The proposed development route and facilities have been designed in accordance with TII's 'Rural Cycleway Design (Offline & Greenway)' (DN-GEO-03047) (2025), including access and inclusivity for mobility impaired. Access to the route is at grade with no steps proposed along the length of the proposed development route. All facilities at the trailheads have been designed to be accessible to persons with disabilities, with dropped kerb access, tactile paving crossing, accessible parking, and wider doors to access toilet blocks.

4.3.15 Embedded Mitigation

In locations where there are constraints caused by existing infrastructure or environmental considerations, the width of the scheme will be reduced by reducing or removing grass verges or, where necessary, reducing the width of the greenway to a minimum of 2.5m.

As described in Section 4.3.12 above, lighting will be designed to reduce impact on sensitive ecological habitats. There will be no lighting provided along the greenway except along lengths of greenway closest to the towns, at trailheads/car parks and in underpasses to maintain user safety.

Where possible, existing trees and hedges will be left in place to avoid disturbing ecological habitats.

Instream works have been limited to culvert installation and masonry repointing at S12 and the number of watercourse crossing structures has been limited to those which are strictly necessary for the scheme to progress.

The route has been developed to follow the existing topography as much as possible to minimise cut and fill quantities, reducing the environmental impact of transportation and waste.

4.4 Land Acquisition

4.4.1 Land Acquisition

Provision of the proposed development requires the acquisition of land for construction and operation of the development. The land acquisition has been sub-divided into temporary acquisition and permanent acquisition. Temporary acquisition has been sought where the lands are required temporarily to facilitate the construction/demolition of discreet elements of the works. Permanent land acquisition has been sought where the lands are required permanently to enable the operation of the Proposed Development through its lifetime. Rights of Way will be established where access is required across the greenway to reduce the impact of severance.

The total land take including both permanent and temporary acquisition comprises approximately 113ha of land. The permanent acquisition for the proposed development totalling 108ha is categorised below (areas are approximate):

- 2.6ha classified as Public Road;
- 87.2ha classified as Agricultural Land;
- 15.4ha classified as Forestry;
- 0.7ha classified as Curtilage;

- 1.3ha classified as Commercial;
- 0.2ha classified as Riverbed, and
- 1.1ha classified as Open Space and Amenity.

Note that approximately 30ha of the classified as Unregistered, the majority of which is along the abandoned railway line.

The proposed land acquisition is necessary for the construction, operation, and maintenance of the proposed development.

4.4.2 Farm Crossings and Proposed Accesses and Tie-ins

In accordance with the Code of Best Practice, where possible the route of the proposed greenway follows field and property boundaries to reduce severance.

In some cases, this has not been possible, due to topographical or environmental constraints, or where the abandoned railway corridor runs between parcels of land owned by the same landowner. In some cases, the landowner has requested the route is moved away from the boundary. Where required, accommodation works will be provided for access across the greenway, so that the impact of the severance is minimised. Further details on the crossings and accommodation works provided is outlined in Section 4.3.5. Alternatively, with agreement from the landowner, severed land parcels may be included as part of the Voluntary Land Acquisition Agreement (VLAA) and become part of the development.

4.5 Construction Phase

4.5.1 Introduction

This section includes information of the Construction and Environmental Management Plan (CEMP), construction methodologies, construction of temporary access roads / tracks and construction compounds, works sequencing, waste management and construction programme.

Construction of the greenway will be carried out in compliance with the Construction and Environmental Management Plan (CEMP).

For the purposes of this construction methodology the proposed development has been split into three sections, as shown in Table 4-19 below. These sections have been split based on the predominant classification of the greenway corridor (i.e. abandoned railway or greenfield) and broadly have a similar number of trailhead and major structures. This construction methodology anticipates that work could be undertaken on all three sections simultaneously. Each section has a main compound and several temporary working areas as outlined in Section 4.5.3.

Table 4-19 - Construction Sections

Section	Location	Summary	Total Length	Comments
Section 1	Ch.0 – 10+300 including Lough Eske Loop and Clar Link	Largely offline greenfield construction from Donegal Town to southwest of Gap	14.7km	2no trailheads and 5no major structures
Section 2	Ch.10+300-20+500	Abandoned Railway corridor (mountainside and bog) from southwest of Gap to Lough Mourne	11.4km	1no trailhead and 1no major structures
Section 3	Ch.20+500 – 30+100 including Goland Link	Largely abandoned Railway corridor (forestry and agricultural land) from Lough Mourne to Stranorlar	11.3km	1no trailhead and 2no major structures

An indicative sequence of works has been developed, breaking down the main construction activities in each section and assigning gangs to each activity.

4.5.2 Traffic Management Plan

Construction of much of the development will take place away from public roads and therefore impacts on traffic will largely be restricted to site access/egress points, which will be located where the greenway interacts with the local road network. Where the proposed development crosses local roads, traffic management will be in accordance with Chapter 8 of the TSM, to allow construction works to continue and maintain traffic flow along the road.

There is more significant traffic disruption expected at the locations of the 3no national road crossings, where underpasses will be constructed using a 'cut and cover' method. This will require 1-2 weekend closures with 24 hour working for each underpass

Temporary (short term) road closures will also be required for the installation of the following structure on a local road:

- Installation of new abutment and deck over Sessiagh View

Temporary traffic management will be required at the following locations on the local road network for sections of online active travel connections and local road realignments:

- Railway Road, Donegal Town
- Tirchonaill Street, Donegal Town
- L1945, Lough Eske
- Navenny Street, Ballybofey
- Railway Road, Stranorlar

4.5.3 Construction Compounds and Temporary Construction Areas

A number of compounds and temporary working area have been identified to facilitate the construction of the works. They are shown in Temporary Construction Areas and Compound Locations Drawing No. 60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-HG-0901 (Refer Volume 3 of EIAR). The compounds and working areas vary in size and will likely include welfare facilities, stores, offices, material storage areas, plant storage and parking for site and staff vehicles. They may remain in place for the duration of the construction programme or may be scaled up or down during particular activities on site.

3no main compounds will be situated at trailhead locations, with a number of satellite working areas situated at regular intervals along the development. Overall, there will be 22no working areas and multiple direct access points from the local road network. Works will be undertaken in each direction from the compounds, typically 500-2000m depending on the spacing of compounds in a given area.

Access to the works locations will be from the construction compound or a direct access point. The compounds will be accessed via public roads, or through private lands which will form part of the land take for the development.

Following completion of construction these areas will be cleared and re-instated. Temporary buildings and containers, parking areas and material such as rubble, aggregates and unused construction materials will be removed as appropriate.

Table 4-20 below indicates the location of the proposed compound and works areas.

Table 4-20 - Compound and Working Area Locations

Description	Location	Chainage (m)	Type	Estimated Area (m^2)	Reinstatement
Compound No. 1	Donegal Town	000	Main Compound	7000	Trailhead Car Park
Working Area No. 1	N56	1120	Temporary Works Area and Access – N56 Underpass	2500	Agricultural Field
Working Area No. 2	Clar	700 (Clar Spur)	Temporary Works Area – N15 Underpass	2700	Agricultural Field

Description	Location	Chainage (m)	Type	Estimated Area (m^2)	Reinstatement
Working Area No. 3	Clardrumnagahan	3500	Temporary Works Area	2200	Planting and Rest Area
Working Area No. 4	River Eske South	4200	Temporary Works Area and Access – River Eske Crossing	11400	Agricultural Field, Rest Area
Working Area No. 5	River Eske North	100 (Lough Eske Loop)	Temporary Works Area and Access – River Eske Crossing	6700	Agricultural Field
Working Area No. 6	Lough Eske Demesne	650 (Lough Eske Loop)	Temporary Works Area	3000	Trailhead Car Park
Working Area No. 7	St Francis NS	6650	Temporary Works Area and Access – River Derg Crossing	4800	Agricultural Field and Greenway
Working Area No. 8	N15 North	8150	Temporary Works Area and Access – N15 Underpass	2000	Agricultural Field and Access Track
Working Area No. 9	N15 South	8350	Temporary Works Area and Access – N15 Underpass	2800	Agricultural Field, Greenway and Access Track
Working Area No.10	N15 South	8800	Temporary Works Area and Access	2000	Agricultural Field and Access Track
Working Area No. 11	Coillte land east of Keadew Lower	10550	Temporary Works Area	2300	Rest Area, Greenway and Storage Area
Compound No. 2	Biddy's	12150	Main Compound	4000	Trailhead Car Park
Working Area No. 12	Meenbog Wind Farm Access	16200	Temporary Works Area	3000	Agricultural Field
Working Area No. 13	Derg Line	17300	Temporary Works Area	550	Agricultural Field
Working Area No. 14	Coillte land near Goland	23550	Temporary Works Area	2800	Forestry
Working Area No. 15	Carrickmagrath	25450	Temporary Works Area	1700	Greenway and Rest Area
Working Area No. 16	Coppering Heights	26400	Temporary Works Area	800	Storage Area
Working Area No. 17	Sessiaghnoneill	27250	Temporary Works Area and Access – Sessiagh View Crossing	500	Agricultural Field
Working Area No. 18	Sessiaghnoneill	27300	Temporary Works Area and Access – Sessiagh View Crossing	1200	Agricultural Field
Working Area No. 19	Sessiaghnoneill School	27530	Temporary Works Area	1400	Greenway and Planting
Working Area No. 20	River Finn South	29350	Temporary Works Area – River Finn crossing	2500	Storage Areas
Working Area No. 21	River Finn North	29550	Temporary Works Area – River Finn crossing	1000	Agricultural Field
Working Area No. 22	River Finn North	29550	Temporary Works Area – River Finn crossing	2000	Agricultural Field
Compound No. 3	Stranorlar	30100	Main Compound	4300	Trailhead Car Park

At locations where permanent gated crossing points for agricultural purposes are proposed along the proposed development, a temporary gated arrangement will be constructed to allow crossing of the works. This will facilitate the safe passage from one side of the works to the other by landowners, farm machinery and animals. This will comprise of temporary fencing and a gated system similar to the permanent arrangement which can be used during the construction phase.

4.5.4 Construction Environmental Management Plan

A CEMP will be developed for the scheme as the design progresses.

Prior to any demolition, excavation or construction a Construction Environmental Management Plan (CEMP) will be produced by the successful contractors for each element of the proposed development. The CEMP will set out the Contractor's overall management and administration of the construction project. A Construction Environmental Management Plan has also been prepared as part of this EIAR, see Appendix 4.1. The CEMP will be developed by the Contractors during the pre-construction phase, to ensure commitments included in the statutory approvals are adhered to, and that it integrates the requirements of the Environmental Operating Plan (EOP). The Contractors will be required to include details under the following headings:

- Details of working hours and days.
- Details of emergency plan - in the event of fire, chemical spillage, flooding, cement spillage, collapse of structures or failure of equipment or road traffic incident within an area of traffic management. The plan must include contact names and telephone numbers for: Local Authority (all sections/departments); Ambulance; Gardaí and Fire Services.
- Details of chemical/fuel storage areas (including location and bunding to contain runoff of spillages and leakages).
- Details and locations of construction plant storage, temporary offices.
- Traffic management plan (to be developed in conjunction with the Local Authority – Roads Section) including details of routing of network traffic; temporary road closures; temporary signal strategy; routing of construction traffic; programme of vehicular arrivals; on-site parking for vehicles and workers; road cleaning; other traffic management requirements.
- Truck wheel wash details (including measures to reduce and treat runoff).
- Dust management to prevent nuisance (demolition & construction).
- Site run-off management and water quality protection measures.
- Noise and vibration management to prevent nuisance (demolition & construction).
- Landscape management.
- Management of contaminated land and assessment of risk for same by suitably qualified, trained and licenced personnel.
- Stockpiles.
- Project procedures & method statements for:
    - Site clearance, site investigations, excavations;
    - Diversion of services;
    - Excavation and/or blasting (through peat, soils & bedrock);
    - Piling;
    - Temporary hoarding & lighting;
    - Storage and Treatment of peat and soft soils;
    - Disposal of surplus geological material (peat, soils, rock etc.);

- Earthworks material improvement; and
- Protection of watercourses from contamination and silting during construction. Including monitoring measures.
- Site Compounds.

The production of the CEMP will also detail areas of concern with regard to Health and Safety and any environmental issues that require attention during the construction phase. Adoption of good management practices on site during the construction and operation phases will also contribute to reducing environmental impacts.

4.5.4.1 Environmental Operating Plan (EOP)

The Environmental Operating Plan (EOP) is defined as a document that outlines procedures for the delivery of environmental mitigation measures and for addressing general day-to-day environmental issues that can arise during the construction phase of a construction project.

Before any works commence on site, the Contractor will be required to prepare an Environmental Operating Plan (EOP) in accordance with the TII/NRA *Guidelines for the Creation and Maintenance of an Environmental Operating Plan*. The EOP will set out the Contractors approach to managing environmental issues associated with the construction of the road and provide a documented account to the implementation of the environmental commitments set out in the EIAR and measures stipulated in the planning conditions. Details within the plan will include:

- All Environmental commitments and mitigation measures included as part of the planning approval process and any requirements of statutory bodies such as the National Parks and Wildlife Services as well as a method documenting compliance with the measures.
- A list of all applicable environmental legislation requirements and a method of documenting compliance with these requirements; and
- Outline methods by which construction work will be managed to avoid, reduce or remedy potential adverse impacts on the environment.

To oversee the implementation of the EOP, the Contractors will be required to appoint a Site Manager to ensure that the mitigation measures included in the EIAR, the EOP and the other statutory approvals are executed in the construction of the works and to ensure that those mitigation measures employed are implemented throughout the duration of the construction phase.

An Outline Environmental Operating Plan has been included in Appendix 4.1 of this EIAR and will be further developed by the Contractors. The EOP is contained as an appendix within the CEMP.

4.5.4.2 Environmental Construction Guidelines

The TII/NRA Environmental and Construction Guidelines provide guidance with regard to environmental best practice methods to be employed in construction on National Road Schemes. The following construction guidelines will be adhered to by the contractor:

- TII (December 2005) Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes CC-ENV-01103*;*
- TII (December 2005) *Guidelines for the Treatment of Bats during the Construction of National Road Schemes CC-ENV-01102;*
- TII (December 2005) *Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes CC-ENV-01101;*
- NRA (January 2005) *Guidelines for the Testing and Mitigation of the Wetland Archaeological Heritage for National Road Schemes PE-ARC-02008*;
- TII (December 2006) *Guidelines for the Protection and Preservation of Trees, Hedgerows and Scrub Prior to, During and Post Construction of National Road Schemes GE-ENV-01110;*

- TII (December 2025) *Air Quality Assessment of Proposed National Roads - Standard PE-ENV-01107. Revision 2;*
- TII (December 2020) *The Management of Invasive Alien Plant Species on National Roads – Standard GE-ENV-01104;*
- TII (December 2020) *The Management of Invasive Alien Plant Species on National Roads – Technical Guidance GE-ENV-01105;*
- TII (October 2004) *Guidelines for the Treatment of Noise and Vibration in National Road Schemes PE-ENV-01110;*
- TII (December 2006) *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes CC-ENV-01104;*
- TII (December 2017) *The Management of Waste from National Road Construction Projects GE-ENV-01101;* and
- TII (December 2007) *Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan GE-ENV-01109.*

This is a non-exhaustive list and relevant guidance current at the time of construction will be followed. It is proposed to employ these guidelines, as and where relevant, on this project.

4.5.5 Resource and Waste Management Plan

In keeping with the Northern & Western Regional Assembly (NWRA) Regional Spatial and Economic Strategy (RSES) and the Connacht Ulster Regional Waste Management Plan (CURWMP) aims of *efficiently using, reusing, and conserving natural resources by managing waste and optimising technologies that promote a circular economy,* a Resource and Waste Management Plan (RWMP) has been prepared and is included in the Construction Environmental Management Plan (CEMP) as Appendix E. This is underpinned by:

- TII's Circular Economy Policy, Strategy and Greenways and Rural Cycleways Guide, including principles such as material re-use, establishing digital material logs and minimising construction plant
- Legislation including Waste Management Act 1996, Environmental Protection Agency Act 1992 and Litter Pollution Act 1997
- EPA guidance (Best Practice Guidelines for the preparation of resource & waste management plans for construction & demolition projects, EPA 2021
- The Waste Hierarchy, with waste prevention and minimisation being the first priority, followed by reuse and recycling

The purpose of the RWMP is to ensure that the production of waste is minimised where possible, and that waste arising during construction is managed and disposed of appropriately. The RWMP is a live document that will be amended and updated to reflect current conditions on site as the project progresses. The Contractor will also appoint a suitable site representative as Waste Manager (who may also be the Site Environmental Manager), who will have overall responsibility for the management of waste.

The Contractor's RWMP should contain the following elements:

- Details of waste segregation and storage (e.g. tanks, skips, bins, containers or areas within the compounds)
- Details of where and how materials are to be disposed of, i.e. landfill or other appropriately licensed waste management facilities, and details of all relevant permits, licenses and record keeping;
- Details of how waste will be recycled and reused within the project as far as possible
- Details of how and where hazardous waste (such as hydrocarbons or chemical waste) will be disposed where necessary
- Details of waste sources and quantities, including from site clearance, excavations and disposal

- Details of construction vehicle management
- Details of dust and noise remediation measures

4.5.6 Construction Programme

4.5.6.1 Duration of Works

A detailed construction programme will be developed in advance of the construction of the project. It is likely that the construction of the development will be progressed as a single construction contract with the construction phase potentially lasting up to 24 months depending on the approach taken by the contractor. For this report, a construction period of 24 months (104 weeks) has been assumed. A Construction Environmental Management Plan (CEMP) has also been prepared as part of this EIAR in Appendix 4.1.

Construction working hours will be 08.00 – 18.00 Monday to Friday with reduced hours on Saturday (08.00 – 14.00) and the site will be closed on Sundays and during public holidays. Works other than the pumping out of excavations, security and emergency works will not be undertaken outside these working hours without the written permission of Donegal County Council. Works shall not be permitted on Sundays or Bank Holidays.

24 hour working will be required for the construction of the three underpasses under the N15/N56 national roads. Each underpass location will require 1-2 weekends where construction activities take place outside of normal working hours (24 hours a day) while the national road is closed.

4.5.6.2 Works Sequencing

The sequencing of the works will be outlined in the detailed programme developed prior to construction, and will take into account the following items:

- Traffic management, with particular consideration given to closures of the national road
- Seasonality with respect to site clearance and works near rivers
- Minimising disruption to residents, commercial businesses and tourist attractions
- Reducing as far as possible the cut/fill imbalance and mass haul requirements.
- Health, Safety and Welfare requirements
- All mitigation measures identified in the EIAR and in any conditions of statutory Approval

Works will largely be undertaken in the following sequence; however, it is expected that the construction programme will involve works at multiple areas being undertaken concurrently.

1. Pre-construction works will include diversion works of services and utilities, along with vegetation clearance, archaeological testing and resolution, ground investigation and fencing. Some of these activities are dependent on the seasonal timing of the award of the main contract.
2. The establishment of the works compounds and the connection of services for their operation will be undertaken at the start of the works, along with the construction of access roads.
3. This will then be followed by site clearance and topsoil stripping of the site in stages. This will be phased to keep just ahead of the major earthworks' movements. Initial works on permanent and temporary boundary fences will also be undertaken as a preliminary operation, with further boundary works required on completion of the main construction works. Accommodation works where required for access, as well as temporary access routes and haul routes through the site will be key early activities.
4. The contractor will construct elements of the permanent drainage system as early as practicable to facilitate earthworks haul routes, control drainage from the works and to avoid flows onto adjacent land and/or untreated discharges to watercourses.

5. Works to the new structures will be significant elements of the construction phase and may be constrained by seasonality in some locations.
6. The bulk earthworks will be undertaken along with capping and geogrid where required. Where earthworks will be minimal in nature, i.e. along the railway corridor, operations will be able to move quicker from clearance to drainage and pavement activities. Pavement activities, including subbase, binder and surface course will follow in all areas once the earthworks and sub-formation is complete.
7. Trailheads will be constructed after the main greenway alignment as they are proposed to be used as site compounds.
8. The last activities to be completed will be signs and road markings, followed by the removal and reinstatement of temporary site compounds to pre-work conditions.

4.5.6.3 Construction Traffic

Assuming a 24 month construction programme, an indicative sequence of works has been developed, breaking down the main construction activities in each section and assigning gangs to each activity. The anticipated number of HGV journeys have therefore been estimated against pavement, earthworks and drainage activities, and the peak volume of HGV movements identified.

Furthermore, numbers of car/van movements for site staff have also been estimated based on the amount of construction activity on site at any given time. These numbers are outlined in the table below.

Table 4-21 - Construction related HGV and LGV Journeys

Construction Month	Number of additional daily LGV journeys*	Number of additional daily HGV journeys
1	18	0
2	55	0
3	164	40
4	182	80
5	164	80
6	128	80
7	146	89
8	109	69
9	128	78
10	91	38
11	73	18
12	73	18
13	109	43
14	109	43
15	109	43
16	128	34
17	128	34
18	109	34
19	55	25
20	73	25
21	73	25
22	55	25
23	36	0

Construction Month	Number of additional daily LGV journeys*	Number of additional daily HGV journeys
24	18	0

** Based on TII Publication RE-ENV-01109 N22 Carbon Benchmarking and Analysis. 'The on-site observations also revealed, that 1 in 12 construction workers share a lift (8.33%), 50% travel by car (25% by small car, and 25% by large car), and 45% travel by van.'*

4.5.7 Construction Methodology

The type of construction along the proposed development can broadly be classified in four ways:

- Abandoned Railway Corridor
- Offline Greenfield
- Offline Woodland
- Structures

The general construction sequence of each classification is shown below:

Abandoned railway corridor

Initially, trees and areas of vegetation that have grown within the railway corridor are to be cleared. Trees and areas of vegetation that are running alongside the railway corridor may need to be cut back but will be retained in situ. Fencing will then be installed, where required.

Existing drainage ditches will be used where possible, with new attenuation and outfalls to watercourse provided. Drainage channels will be cleaned and crossings repaired.

In general, the existing rail capping will be taken as the formation level. Where required, this will be made good by removing and replacing the top layer with subbase before the pavement is laid. Once pavement is complete, verges will be completed using topsoil stripped from the site, and all new road markings and signage will be installed.

Any remaining permanent fencing that was not installed prior to the general construction, will be installed and any temporary construction facilities removed.

Offline greenfield alignment

These sections will require greater quantities of cut and fill earthworks operations compared to the sections along the abandoned railway corridor. Initially trees and areas of vegetation along the proposed route of greenway are to be cleared. Habitat clearance is to be minimised where possible. Fencing will then be installed, where required.

The existing topsoil will be excavated and associated overburden will be stored. Any required cut/fill operations will then be undertaken, with existing ground level will be excavated to sub-formation level. New drainage ditches are to be constructed, along with attenuation ponds and new pipe crossings. Any future use ducting, where required, will then be laid.

Geotextile, geogrid and a 300mm layer of capping are to be placed to make the formation level, followed by the pavement construction. Once pavement is complete, verges will be completed using topsoil stripped from the site, planting will be undertaken and all new road markings and signage will be installed.

Any remaining permanent fencing that was not installed prior to the general construction, will be installed and any temporary construction facilities removed.

Offline woodland

There are some localised sections which traverse woodland. These sections need particular care and attention to minimise the environmental impact of the construction of the proposed development, particularly with respect to site clearance and invasive species management. The two areas where the greenway traverses offline woodland are outlined below:

- Lougheask Demesne (Ch.350-550 Eske Loop), approximately 100m north and 610m southwest of the Lough Eske and Ardnamona Wood SAC. This area is outside the

Lough Eske and Ardnamona Wood SAC and there is no potential to affect Qualifying Interests of this European site at this location. In advance of construction, the route of the alignment will be micro-sited in consultation with the Arborist and ECoW in order to minimise the loss of mature trees, and to protect the trees along the greenway that are to be retained. Furthermore, invasive species (including Rhododendron) in the corridor will be removed, providing an opportunity to improve the biodiversity of the area.

- Lough Eske (Ch.1350-1650 Eske Loop), within the Lough Eske and Ardnamona Wood SAC. Within the SAC ecological and topographical surveys have been undertaken to determine the presence of mature, native trees. The greenway alignment has been designed to avoid these trees. The ecological surveys indicated that the prevailing tree species in the area is Rhododendron, an invasive species. These plants will be cleared from the area providing an opportunity to improve the biodiversity in the area and the construction of greenway route will predominantly utilise these areas of clearance.

Existing and new structures

For new structures, all temporary cut off walls/sheet piles will be constructed initially along with measures for sedimentation control such as silt fencing and cut off ditches. Piling platforms (if required) and any required ground improvements within the footprint of the temporary cut off wall will then be installed.

The bridge support zone will then be excavated to the required formation level, followed by the casting in of in-situ abutment foundations, abutment wall and wingwalls. Approach embankments will then be constructed and backfilled to abutments as required for stability during installation of beams or trusses. All beams/girders and decks will then be erected before completing the required backfill to abutments.

Verges will then be constructed with required drainage, along with the erection of the parapet system before surfacing is completed.

4.5.8 Description of Construction Works

A description of the construction works is provided below, broken down by work construction activity. For each activity an estimation of the construction plant has been provided.

4.5.8.1 Clearing and Grubbing

Trees, areas of vegetation and debris will be cleared from the proposed greenway corridor. Prior to works commencing, access should be established from the relevant compound or direct access from local road (with appropriate temporary traffic management to be in place). Site clearance will include the removal of existing vegetation on the footprint of the proposed development, including any roots of existing vegetation. Any low branches overhanging and extending over the proposed development are to be cut back. All vegetation not on the line of the proposed development is to be retained. Any material removed as part of the site clearance is to be mulched and reused in landscaping works where possible or recycled off-site.

Machinery required will include excavators, chainsaws, mulchers, skid steer loaders and dump trucks.

4.5.8.2 Fencing and Protection

Fencing will be installed early in the construction phase to delineate the works area, secure the site from the public and provide a livestock proof boundary. In some areas temporary fencing will be required where the permanent fencing cannot yet be installed. Temporary fencing to be constructed of timber post with 900mm sheep wire. Temporary fencing will be taken down and reused on other areas of the site, where possible. Temporary construction crossings and landowner crossings, as well as access controls, will be installed at direct accesses from local roads.

Permanent fencing will be constructed from timber post and wire mesh. Posts are to be driven where ground conditions allow, otherwise concrete foundations to be provided.

4.5.8.3 Earthworks

The earthworks for the proposed development of the greenway will involve the removal of topsoil and overburden from footprint of works to expose the subgrade, prior to cut and fill operations, to establish the formation level and allow for the placement of capping, geogrid and geotextile, where required. Most earthworks are confined to offline, greenfield areas.

Initially, topsoil will be excavated by excavators and transferred for storage by dump trucks. Topsoil is to be stored on site for reuse; stored on stockpiles along the route or in compound or working areas. Areas of cut will be excavated, with acceptable fill being reused on site for embankment structural fill and unacceptable fill used for verges and earthworks side slopes. Any areas containing invasive species will be removed in line per the Invasive Species Management Plan.

Fill material is to be placed for embankment construction where required. Fill material to be placed will be compacted in layers. F ill material will be sourced from adjacent excavations on site to minimise transportation. For offline greenfield areas, geogrid and geotextile will be placed on subgrade and 6F2 capping material is to be imported, placed and compacted to construct to formation level.

Machinery required will include excavators and dozers (for excavation and grading), dump trucks (for transporting cut/fill material), and rollers (for compacting fill).

4.5.8.4 Drainage, Culvert and Swale Installation

The proposed development of the greenway requires the installation of drainage ditches, pipes and culverts for water drainage, including excavation and placement of pipes. Additionally, swales will be installed to manage surface water runoff along the route, promoting sustainable drainage and preventing erosion.

The following description contains input from the CIRIA C753 SuDS manual and the CIRIA C698 SuDS Construction manual on construction stage methodology.

Key activities during construction include site access, storage of materials, site drainage, and protection from erosion, pollution, sedimentation and over-compaction. Key protection areas such as buffer zones, filter strips, and trees will be identified at an early stage prior to any construction to avoid damage to the natural environment. Sediment traps and barriers will be installed early in the process, before the start of earthworks construction to avoid sediment discharging to nearby watercourses.

General: Construction runoff can come with high sediment loads and will be properly managed to mitigate impacts due to sediment like build-up in storage systems, pollution of receiving waters, and clogging of infiltration systems. Sediment traps and silt fencing will be installed before any major site earthworks/groundworks take place. The swales and the ditches can serve a dual purpose of managing sediment during the construction prior to their use as swales during operation. Runoff control used in combination with sediment traps to divert water around earthworks areas and remove silt will be used. Mitigation measures will be put in place to minimise risks of pollution due to oils and hydrocarbons from construction machinery. These will include measures such as maintenance of machinery, booms on watercourses, drip trays, designated areas for refuelling, and storage facilities. Works in watercourses will be undertaken during the time of the year that minimises risks of flooding and impacts to fisheries where applicable.

Construction of swales, PED ditches, and OTE ditches: Swales, PED ditches, and OTE ditches are shallow depressions that receive, convey, and attenuate runoff prior to discharge to the watercourses. Material will be excavated to form the depression according to the design. The excavation works will take place from the side of the swale and ditch features to avoid unnecessary vehicular traffic, compaction, and sediment impact to the feature. The CIRIA SuDS manual recommends that swales should receive runoff once vegetation has been established and at a stage where construction sediment loads will not cause rapid siltation in the features. The formation of ditch and swale depressions will occur during the earthworks

phase, but final construction will take place at the end of the programme. Any silt or sediment deposited during construction should be removed and areas that have been subject to over-compaction should be rehabilitated. The construction of swales and ditches at an early stage will help with the management of runoff and assist in settling sediments resulting from construction. The establishment of vegetation and sediment removal will take place after site works are complete and before the start of the maintenance period. Inspections of drainage features should be completed as necessary to ensure proper construction.

Construction of pipes: Filter and carrier drains will be constructed by excavating a trench according to the design requirements. The pipe will be laid with appropriate bedding and backfill materials. Any required testing of the pipes will be done to ensure the pipes have been correctly joined and installed.

Construction of culverts: For the construction of any pipe or box culverts, the culvert will be constructed offline to allow the existing channel to remain in place as long as possible. The pipe/box culvert will be installed first, followed by headwalls or wingwalls, and required backfilling. Any necessary rip/rap or scour protection measures will be installed next followed by the installation of the natural bed. Excavated material from the natural channel can be used at the upstream and downstream tie-in of the culverts and within box culverts to make up the embedment. Where fish are present, consideration will be required for resting pools upstream and downstream of the culvert. The watercourse will then be diverted through the new culvert and allow for greenway construction activities to proceed. Appropriate machinery for the size and type of culvert will be utilised.

Machinery required will include excavators, backhoe loaders, crawler cranes (for culverts), wheel loaders, and dump trucks.

4.5.8.5 Pavement

The pavement construction includes subbase, binder and surface layers. Initially, a subbase of unbound granular material Type A Cl 804 is to be paver laid and compacted to create the required crossfall. A 50mm layer of binder material will then be paver laid and compacted with lightweight (2t) twin drum rollers. 6t dump trucks may be required to transport the blacktop material to the paver. A 20mm layer of surface course will then be laid and compacted as above.

Machinery required will include excavators, dump trucks, pavers, and rollers.

4.5.8.6 Trailhead Construction

Car parks within trailheads will be constructed of permeable cellular paving and include geogrid, subbase, geotextile, plastic/concrete cellular paving and topsoil layers, along with kerbing, drainage, signage and road markings.

Initially, the site will be cleared and levelled as these will be utilised as compounds or working area during the construction of the greenway. This will be following by the placement and compaction of the subbase of unbound granular material Type A Cl 804. Drainage requirements within the car parks, including drainage carrier pipes, gully pots, outfalls and attenuation, will then be installed. Kerbing will be laid, followed by the laying of geotextile, sand and concrete/plastic cellular paving layers. Finally, soft landscaping areas will be made up of laying of soil and grass seed, followed by the installation of signage and road markings.

Machinery required will include excavators, dump trucks, and rollers

4.5.8.7 Bridge Construction

River and Overbridge Construction - General

The construction of the river bridges and overbridge consist of three main phases:

- Excavation for Substructure Foundations
- Construction of Substructure Base, Abutments and Piers
- Installation of Bridge Deck

Note that the Construction Environmental Management Plan (CEMP) in Appendix 4.1 contains details surrounding the water protection and pollution prevention measures at each of the structures to be constructed along the proposed development.

Excavation for Substructure Foundations

In advance of any excavations for foundations near watercourses, temporary cut off walls/sheet piles will be constructed along with measures for sedimentation control including silt fencing and cut off ditches with sedimentation traps.

Excavation for the substructure foundations will begin with excavations to formation level for the associated abutments and intermediate piers. The excavations will then be stabilised using temporary works (shoring, trench boxes, etc.). Once any temporary works are in place dewatering equipment, if required, is to be installed to ensure formation level remains dry.

Machinery required will include large excavators (for excavating), dump trucks (to remove spoil), and dewatering pumps (to ensure area remains dry).

Construction of Substructure Base, Abutments and Piers

Once the excavations are complete and safe, construction of the substructure will commence. Initially, shuttering will be erected for the reinforced concrete abutments followed by the installation of reinforcement cages. Concrete will then be poured and allowed to cure the appropriate amount of time. Once fully cured the formwork will be struck and removed. Waterproofing will then be applied to any buried concrete faces to prevent exposure to surrounding ground conditions. Back of wall drainage will be installed at the abutments followed by backfilling and compaction.

Machinery required will include articulated trucks, concrete mixer; dump trucks (for transporting backfill material), rollers and compactors (for proper compaction), drainage installation equipment, and a mobile crane (for shuttering and reinforcement).

Installation of Bridge Deck

After the completion of the substructure base, abutments and piers, the bridge deck can be installed. Steel box girders and transverse beams (as single lift) will be transported to site and erected. Once the steel girders and transverse beams are in place precast concrete deck slabs will be installed and continuity with substructure and transverse beams will be established via in-situ concrete stitches. Combined waterproofing and surfacing will then be installed followed by the installation of paving, drainage, landscaping and finishes.

Machinery required will include articulated trucks and a mobile crane (for lifting the deck).

River Eske Viaduct Construction

The following sets out the sequence of activity associated with the River Eske crossing.

Establish Site, Sedimentation Control and Substructure Foundations

Initially, the works site will be established on both sides of the river, and sedimentation and pollution control and monitoring measures will be implemented prior to breaking ground. A triple layer of silt fencing will be installed parallel to the works area, along with interceptor ditches with straw bales and settlement ponds. Site clearance will then be carried out to provide sufficient space for the works to be carried out. Once the area is clear, any utilities protections or diversions will be undertaken. For the construction of the River Eske Viaduct, the existing overhead electrical lines will be protected or diverted as per requirements set by the statutory undertaker.

Once the sedimentation control measures and enabling works have taken place, temporary cut off walls will be installed prior to the excavation and piling for the substructure foundations. The foundations will then be excavated behind the cut off wall and dewatered using a pump which will outfall to a settlement pond.

Piling will then be undertaken for the abutments and piers. The final choice of pile type will be subject to detailed site investigation and design, but are likely to be micropiles. In the event that bored piles are necessary, a permanent steel casing will be provided to ensure the risk of contamination will be minimised. Once piling is complete, construction of the reinforced concrete pile caps will be undertaken, involving shuttering, placement of reinforcement cages

and pouring and curing of concrete. Management of concrete will be carefully controlled in accordance with the CEMP.

Machinery required will include excavators and dump trucks (for establishing sedimentation control measures and excavating foundations), a piling rig and dewatering pumps.

Substructure Base, Abutments and Piers

Once the pile caps/foundations have been constructed, the abutments and pier plinths will be constructed on both sides of the river. Initially, shuttering will be erected for the reinforced concrete abutments followed by the installation of reinforcement cages. Concrete will then be poured and allowed to cure the appropriate amount of time. Once fully cured the formwork will be struck and removed. Waterproofing will then be applied to any buried concrete faces to prevent exposure to surrounding ground conditions. Back of wall drainage will be installed at the abutments followed by backfilling and compaction.

At this point a detailed survey will be undertaken establish the position of the abutment and pier plinth tie-ins. At the same time, off-site fabrication of the steel piers and deck at a can be undertaken concurrently, as well as a trial erection off site.

Machinery required will include articulated trucks, concrete mixer; dump trucks, rollers and compactors (for proper compaction), drainage installation equipment, and a mobile crane (for shuttering and reinforcement).

Installation of Bridge Deck

Once the substructure is complete, the V-shaped tubular steel piers will be transported to site and erected, along with temporary bracing. This will be followed by concrete infill to the piers.

The steel superstructure will then be transported to site in segments and erected on the piers/abutments (waterproofing and surfacing to be applied off-site at workshop location). Transportation will be via articulated lorries and low loaders using the temporary accesses created north and south of the river to the adjacent road network.

To provide full deck continuity, field welding and encapsulation of the superstructure will be undertaken at segment joints, followed by the final abutment stitches at the ends to make the structure fully integral. Finally, the paving, drainage, landscaping and finishes will be applied to the structure and approaches, followed by the removal of any temporary pollution control measures once all permanent works are complete and vegetation is established.

Machinery required will include articulated trucks/low loaders and a mobile crane (for lifting the deck).

River Finn Viaduct Construction

The following sets out the sequence of activity associated with the River Finn crossing.

Establish Site, Sedimentation Control and Substructure Foundations

Initially, the works site will be established on both sides of the river, and sedimentation and pollution control and monitoring measures will be implemented prior to breaking ground. A triple layer of silt fencing will be installed parallel to the works area, along with interceptor ditches with straw bales and settlement ponds. Site clearance will then be carried out to provide sufficient space for the works to be carried out.

The existing abutment will be utilised on the north side of the River Finn, so new substructure foundations are only required on the south side. This will be constructed by excavating to formation level, stabilising using temporary works and dewatering if required. An existing ditch will be piped east of the proposed structure. The concrete pads will then be constructed for the southern abutment and approach span piers.

Machinery required will include excavators and dump trucks (for establishing sedimentation control measures and excavating foundations), concrete trucks and dewatering pumps.

Substructure Base, Abutments and Piers

Once the foundations have been constructed, the southern abutment and approach span piers will be constructed. Initially, shuttering will be erected for the reinforced concrete abutment followed by the installation of reinforcement cages. Concrete will then be poured

and allowed to cure the appropriate amount of time. Once fully cured the formwork will be struck and removed. Waterproofing will then be applied to any buried concrete faces to prevent exposure to surrounding ground conditions. Back of wall drainage will be installed at the abutments followed by backfilling and compaction.

Bearing plinths and pads will be installed on the new southern approach span substructure, existing masonry piers and the existing northern abutment. At this point a detailed survey will be undertaken establish the position of the abutment and pier plinth tie-ins . At the same time, off-site fabrication of the steel lattice girders and curved universal beam sections can be undertaken concurrently, as well as a trial erection at the workshop.

Machinery required will include articulated trucks, dump trucks, rollers and compactors (for proper compaction), drainage installation equipment, and a mobile crane (for shuttering, reinforcement and bearing pads).

Installation of Bridge Deck

Once the substructure is complete, the steel superstructure will be transported to site in segments and erected on the piers/abutments, followed by the erection of the precast concrete deck slabs. There will also be in-situ concrete stitches required to the steel girders. Transportation will be via articulated lorries and low loaders using the temporary accesses created north and south of the river to the adjacent road network.

Once the superstructure is in place, installation of kerbs and parapets will follow, along with waterproofing and surfacing. Paving, drainage, landscaping and finishes will then be installed at the southern end.

On the northern side, construction of the concrete saddle to the masonry arches will take place on northern abutment, followed by installation of precast concrete deck slabs and parapets as described above. Finally, the removal of any temporary pollution control measures will take place once all permanent works are complete and vegetation is established.

Machinery required will include articulated trucks/low loaders and a mobile crane (for lifting the deck).

Underpass Construction

To construct the underpass the following sequence of events has been established. Temporary weekend road closures will be required to undertake the construction.

Excavation and Foundation

Initially, the existing carriageway and sublayer to formation level for underpass and retaining wall will be excavated. The excavations will then be stabilised using temporary works (shoring, trench boxes, etc.). Once any temporary works are in place dewatering equipment, if required, is to be installed to ensure formation level remains dry.

Machinery required will include large excavators (for excavating), dump trucks (to remove spoil), and dewatering pumps (to ensure area remains dry).

Once the excavations are complete and safe, any upfill required from formation level will be placed to blinding level, followed by pouring the concrete blinding.

Machinery required will include excavators (for placing upfill), dump trucks (to placing upfill), and concrete ready-mix trucks (for blinding).

Underpass, Retaining Wall & Headwall Construction

Following upfill and blinding, the precast underpass box units will be positioned in place. Precast retaining walls and precast headwalls will then be installed. With all precast units in place any joints and connections between will be sealed.

Machinery required will include a mobile crane (for lifting precast sections into place) and articulated trucks (for delivering precast elements to site).

Once all precast sections are in place and joints are sealed, all buried sections of concrete will be waterproofed, and a drainage system installed at the back of wall to prevent future damage from ground water. Backfill will then be placed and compacted to the rear and top of

the underpass and retaining walls. Carriageway surfacing will be laid in accordance with the specifications to ensure a smooth and continuous finish at the finished level. With the carriageway surface complete, the temporary traffic management can be removed and the road reopened.

Machinery required will include excavators (for backfilling and grading), dump trucks (for transporting backfill material), rollers and compactors (for proper compaction), pavers, lorries and drainage installation equipment.

Existing Bridges Retrofit

Prior to breaking ground any environmental controls (e.g., silt fences, spill kits) are to be set up to protect any watercourse below. Temporary access routes will then be installed to reduce the area of affected land. With temporary access routes installed and clearly defined, full scaffolding to provide a stable, safe working platform will be erected. This will likely be a scaffold within the arch barrel and standard independent scaffolding on the bridge elevations (spandrels and parapets).

Machinery required will include large excavators (for excavating), scaffolding trucks (delivery of scaffolding); and mobile elevated work platform (MEWP), for close inspections.

With temporary works platforms in place, the masonry arch bridge will require repair and repointing. The masonry will be cleaned (elevations and arch barrel) to remove vegetation, loose mortar, and biological growth. All failed, loose, or soft mortar joints will be raked out (removed) to a specified depth (e.g., 25-50mm) using hand tools or small power tools. The joints will then be repointed using a specified, breathable mortar (typically a lime-based mortar to match the existing construction). This is often done by hand to ensure joints are fully packed. Any significantly damaged or displaced stones (voussoirs) will be identified, removed, and either repaired or replaced.

Machinery required will include pressure washer (for cleaning the stonework), handheld pneumatic breakers (for carefully raking out mortar joints), mortar mixer (for preparing the pointing mortar), and grout pump (for deep voids if found, can be used to inject a flowable lime grout to consolidate the arch).

With all repairs and repointing undertaken, the existing bridge will have a waterproofing layer applied over the entire new concrete saddle. A new drainage system (e.g., weep holes) will be installed to manage water on the deck. The original parapet walls will be reinstalled or a new, compliant greenway parapet/handrail system will be installed. The final greenway surface (e.g., tarmac, resin-bound gravel) will then be laid followed by the dismantling of the temporary works and landscape works.

Machinery required will include telehandler / forklift (for lifting parapet sections, bags of sub-base, and paving materials), tarmac paver (for laying the final surface), vibrating roller (for compacting the sub-base and final surface); and excavator with landscaping rake (for reinstatement of surrounding areas).

Masonry Arch Concrete Saddling will require locating any buried services and undertake temporary diversions in conjunction with the utility owner. Masonry will be exposed by excavating down to arch extrados, and the surface prepared with installation of dowels (if masonry found not to provide sufficient bond to concrete). This will be followed by the erection of formwork at ends of exposed extrados and installation of the mesh reinforcement. With the mesh reinforcement a controlled pour of concrete for the saddle will be laid and left to cure. Waterproofing will then be applied to concrete saddle, followed by build-up of backfill and finally the greenway surfacing course.

Machinery required will include small excavator and handheld equipment, pressure washer (for cleaning the stonework), telehandler / forklift (for lifting formwork), concrete ready-mix trucks (for blinding), dump trucks (for transporting backfill material), and rollers and compactors (for proper compaction).

4.5.9 Accidents and Emergencies

As outlined in Section 4.5.2 and Appendix 4.1 CEMP, the majority of the construction works will take place away from public roads and will not affect access for emergency service

vehicles on the public road network. However, where road closures or lane closures are required to undertake construction works, the Contractor will ensure that emergency vehicles will not be negatively impacted by the works. The Construction Traffic Management Plan (CTMP) will be developed in conjunction with TII, DCC and representatives from the emergency services. The Incident Response Plan in Appendix F of the CEMP provides detail on the response process to unprecedented events.

4.6 Operational Phase

4.6.1 Responsibility

The route lies within the Donegal Couty Council authority area. Operation matters and maintenance will be the responsibility of Donegal County Council. The operational team will have responsibility for the operation and emergency planning for the amenity. The emergency team will respond to all emergencies as reported to them and will put the emergency plan into place which include cooperation with the emergency services.

4.6.2 Maintenance Activities

The proposed greenway will be managed in accordance with standards set out in the following documents:

- 'Strategy for the Future Development of National and Regional Greenways', Department of Tourism, Transport and Sport (2018).
- 'Embracing Ireland's Outdoors National Outdoor Recreation Strategy', Department of Rural and Community Development and the Gaeltacht (2023)
- 'Code of Best Practice for National and Regional Greenways', Department of Transport (2021)

As per the Code of Best Practice (Section 3.2.16) Donegal County Council will be responsible for the upkeep and maintenance of the Greenway. This includes general upkeep, such as maintenance to lighting, vegetation, fencing and drainage. Donegal County Council will also provide management of litter facilities and toilet facilities, general maintenance of trail heads, and routine maintenance work as required. To promote responsible outdoor recreation, users will also be encouraged to follow the seven principles of 'Leave No Trace' through provision of appropriate signage along the greenway route.

A Management and Maintenance Plan has been developed and is included in Appendix 4.2.

4.6.3 Accidents and Emergencies

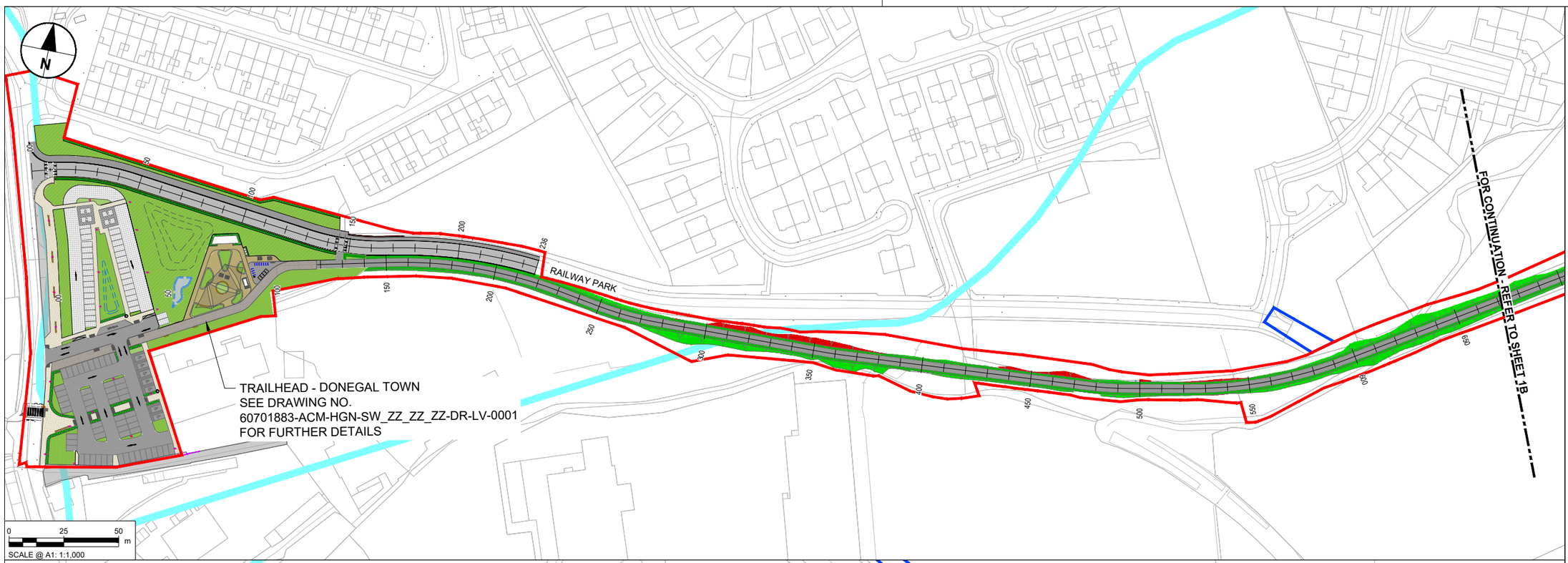
The proposed development will provide measures in an event of accidents and emergencies. The following measures are proposed:

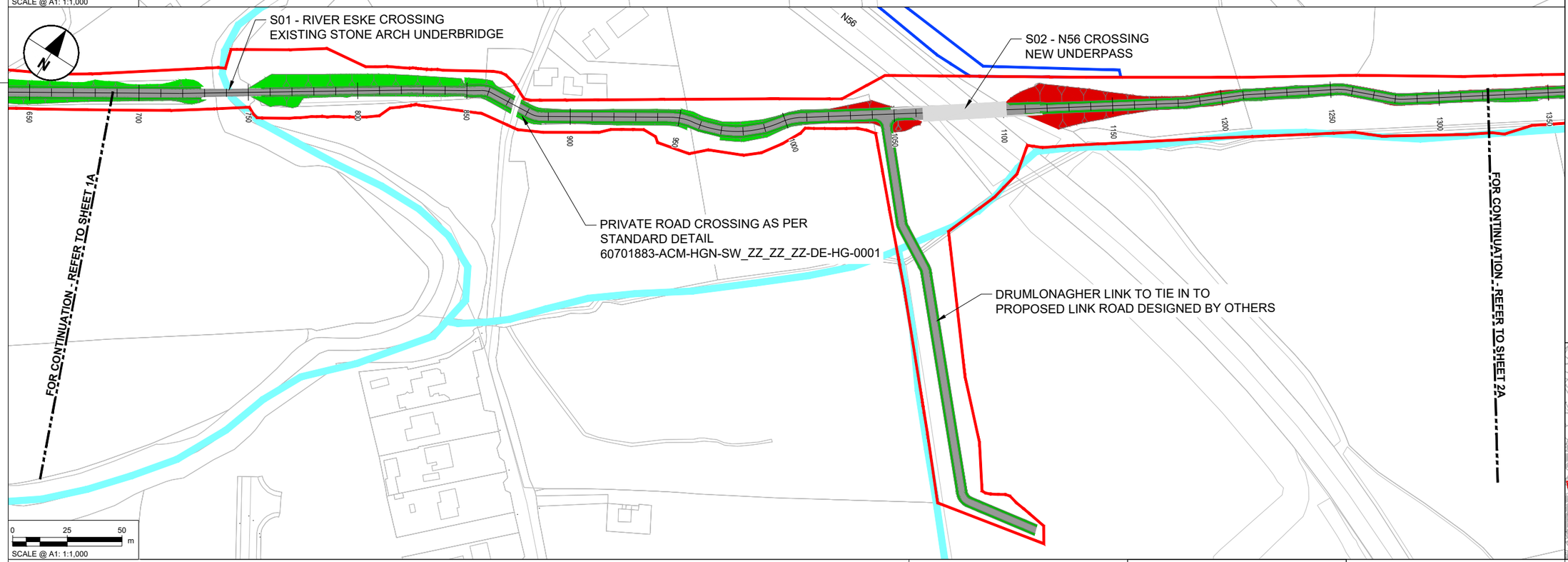
- **Marker posts** – marker posts will be erected at frequent intervals (500m in accordance with DN-GEO-03047) to inform people of their location when in need and to direct them to the nearest access.
- **Accessibility** – the proposed greenway will be accessible via existing car parks and level crossings to emergency vehicles.

4.6.4 Safety and Security

There is no vehicular access to the greenway from the public access points. At all at grade crossings, there will be chicanes which will be removable for emergency services and maintenance access which will be available within a key coded box. Only key personnel and emergency services will have access to the key codes to get access. The code to open the local key coded box and retrieve the key will be the same for all public access points along the greenway.

APPENDIX B
DRAWINGS





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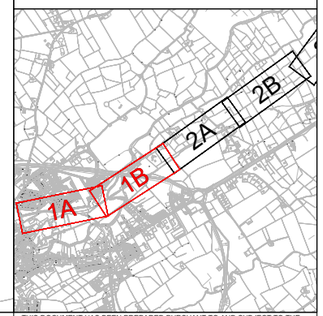
KEY

- PERMANENT LAND TAKE BOUNDARY
- TEMPORARY LAND TAKE BOUNDARY
- PROPOSED GREENWAY PAVEMENT
- PROPOSED GRASS VERGE
- PROPOSED EARTHWORKS - FILL
- PROPOSED EARTHWORKS - CUT
- WATERCOURSE

TRAILHEAD KEY

- GRASSCRETE
- ASHPHALT
- RESIN BOUND GRAVEL
- VERGE PLANTING
- HEDGE



Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRB Oifig Boithre Náisiúnta Dhún na nGall

Greenway

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Project Title: Barnesmore Gap Greenway

Drawing Title: SERIES 0100 GENERAL ARRANGEMENT SHEET 1 OF 31

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Suitability: S2
Scale @ A1: 1:1000
Volume: General

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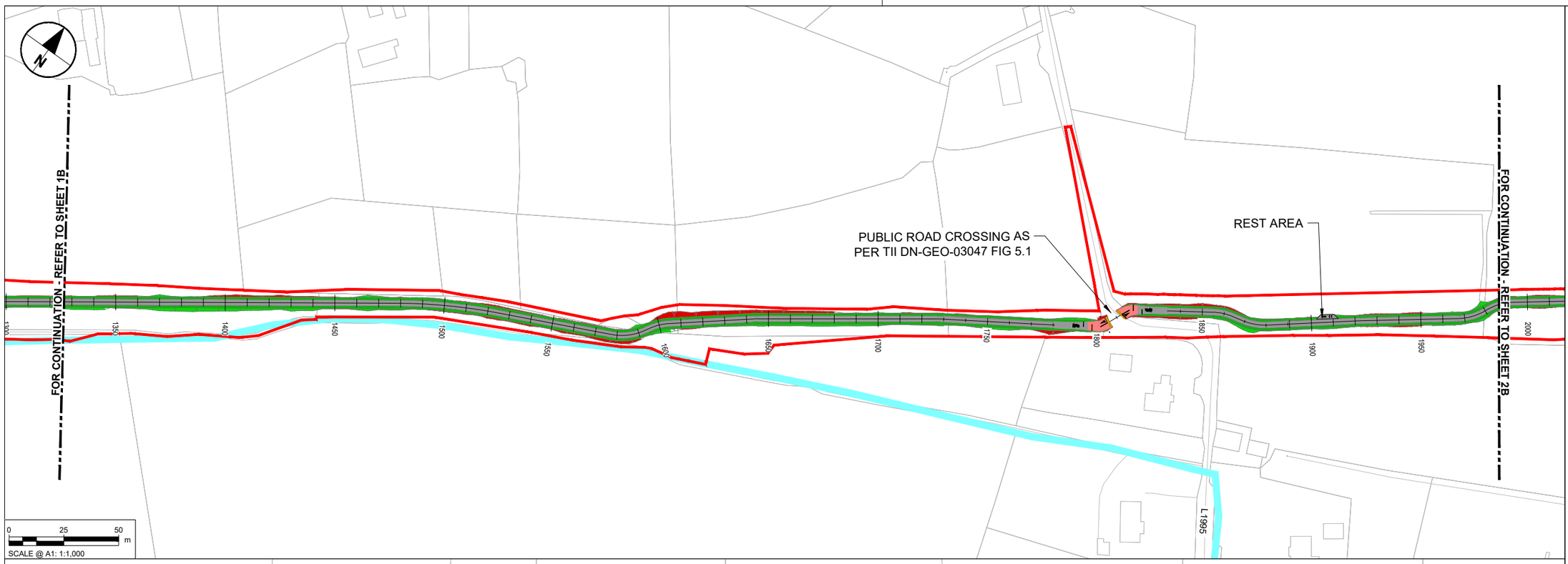

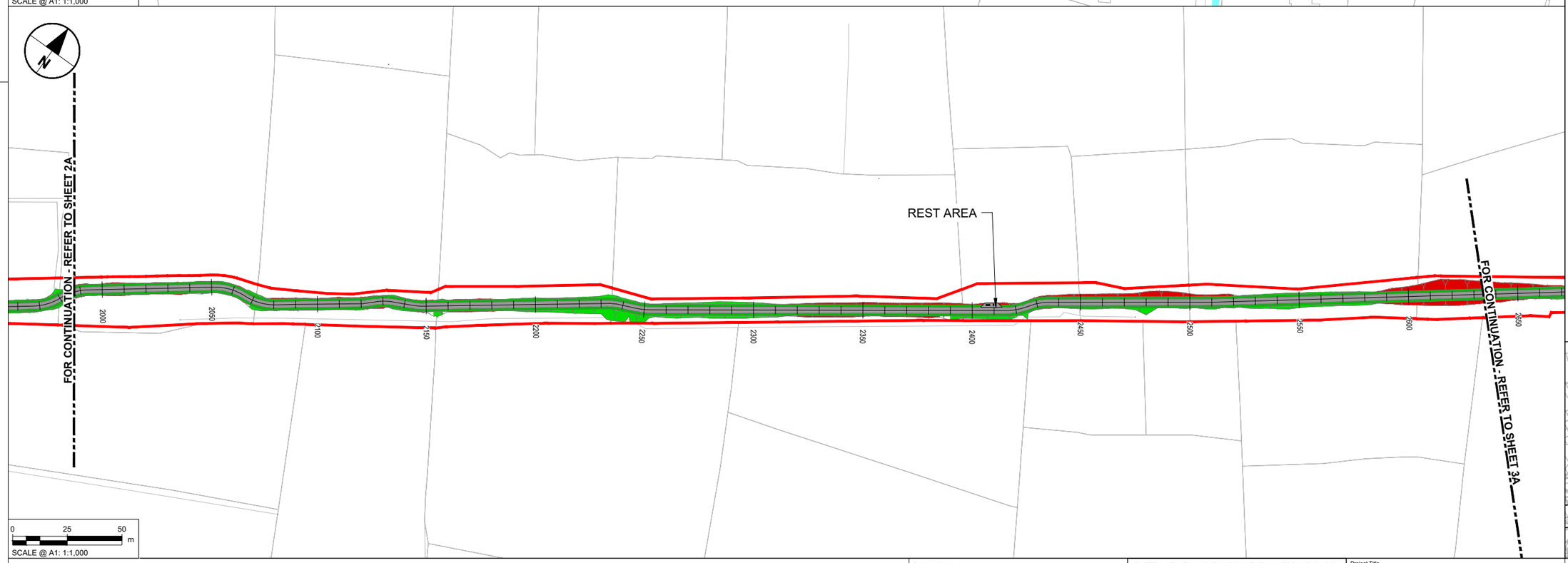

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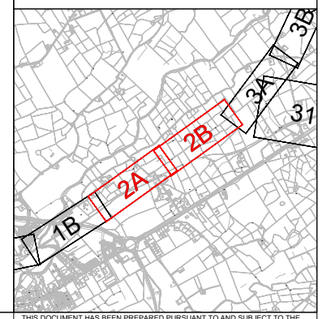

Tionscadal Éireann Project Ireland 2040

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Greenway

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Project Title

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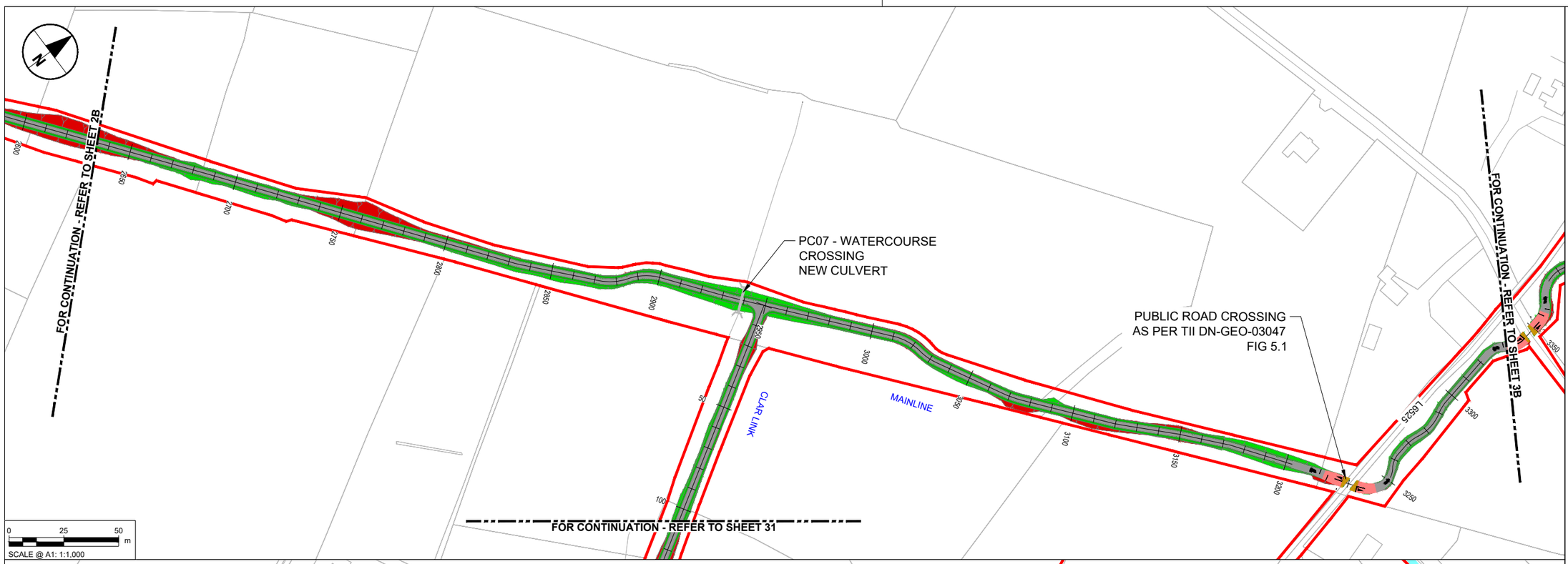
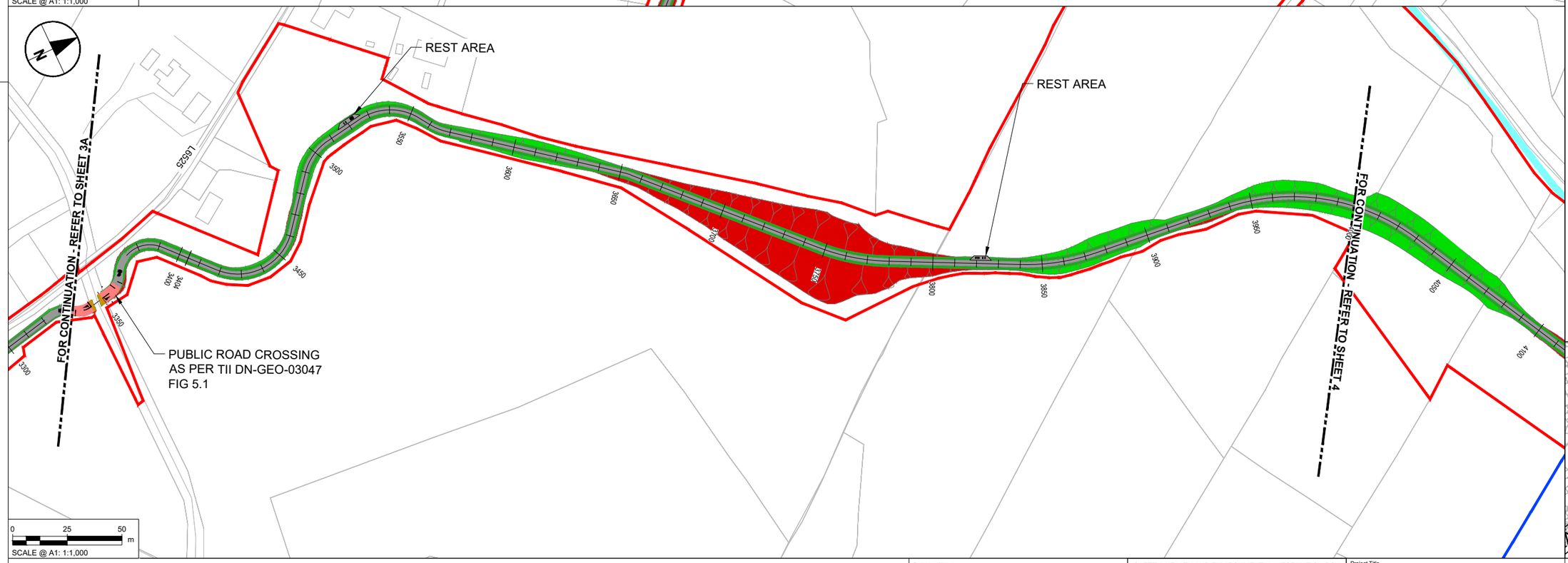
Rev: P05





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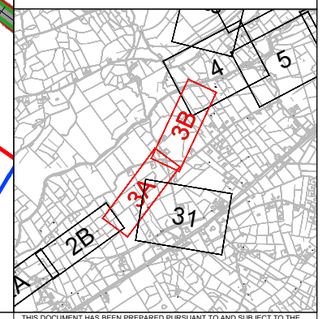

Tionscadal Éireann Project Ireland 2040

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	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 3 OF 31

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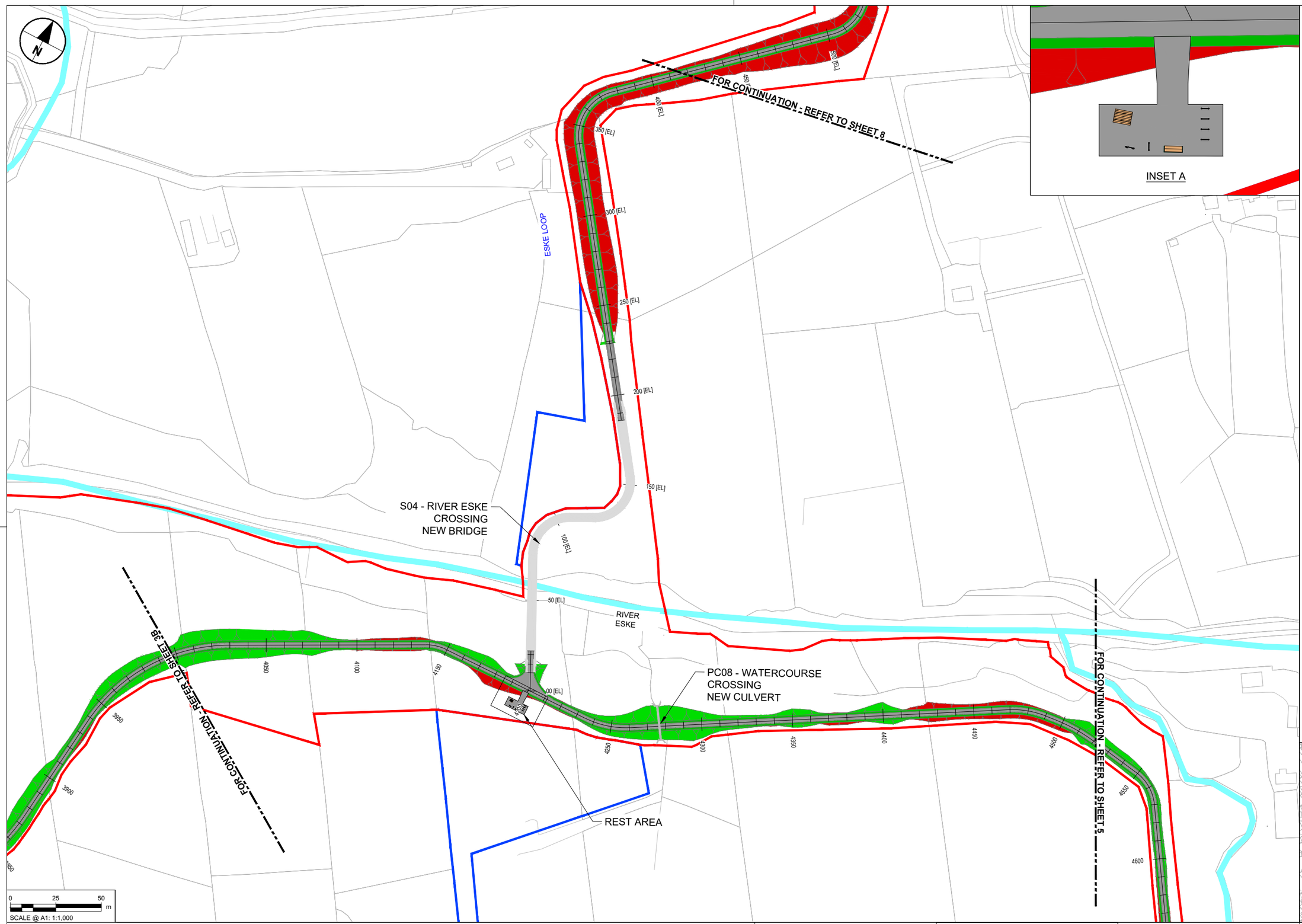
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number: Aecom Project ID 60701883 - Originator -ACM - Volume -HGN- - Location SW_ZZ_ZZ_ZZ - Type -DR - Role -HG- - Number -0098

Rev: P05



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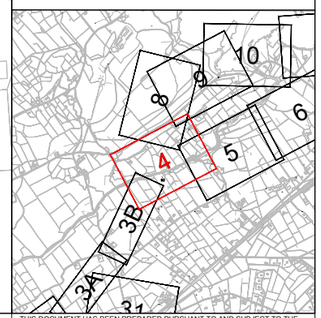

Tionscadal Éireann Project Ireland 2040

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	IL / EP	20/03/26	P04
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Drawing Title

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Designed	Drawn	Checked	Approved	Date
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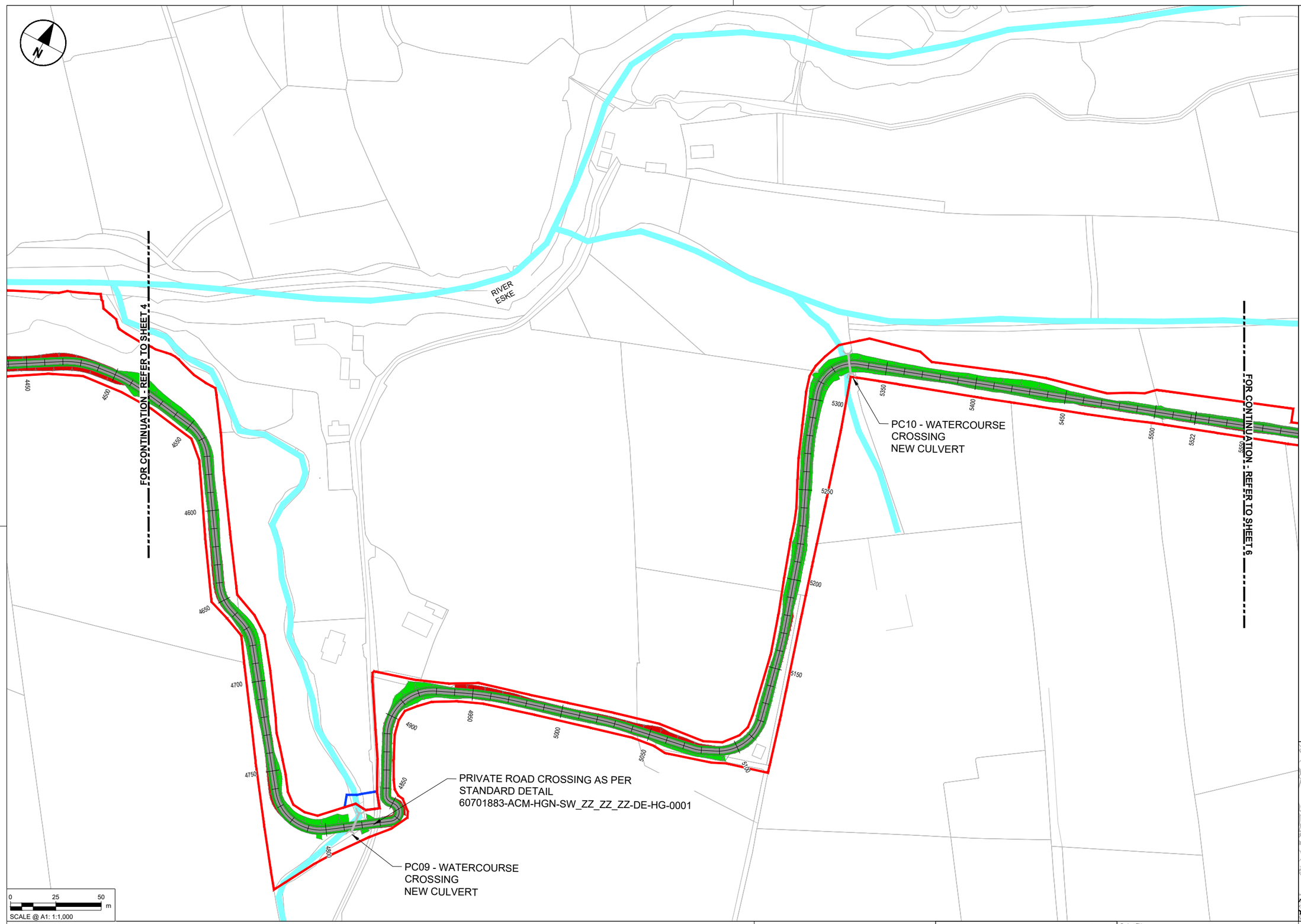
Internal Project No. 60701883 | Suitability S2

Scale @ A1 1:1000 | Volume General

Drawing Number: Aecom Project ID 60701883 - Originator ACM - Volume HGN - Location SW_ZZ_ZZ_ZZ - Type DR - Role HG - Number 0099

Rev P05



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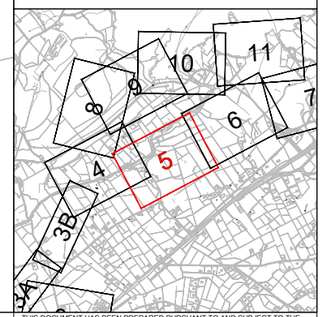

Tionscadal Éireann Project Ireland 2040

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GENERAL ARRANGEMENT
SHEET 5 OF 31

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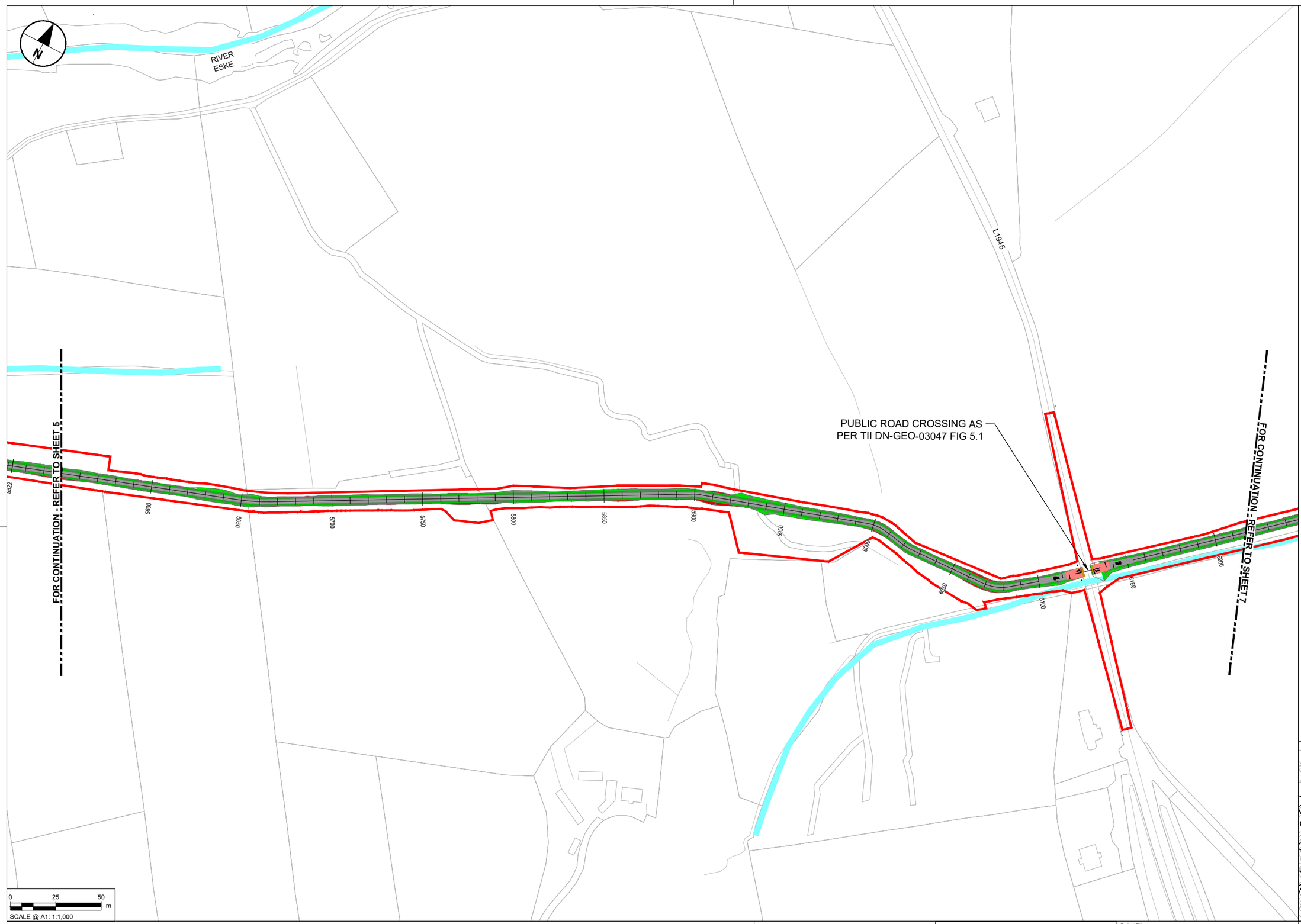
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No. 60701883 | Suitability S2

Scale @ A1 1:1000 | Volume General

Drawing Number: Aecom Project ID 60701883 - Originator ACM - Volume HGN - Location SW_ZZ_ZZ_ZZ - Type DR - Role HG - Number 0100

Rev P05



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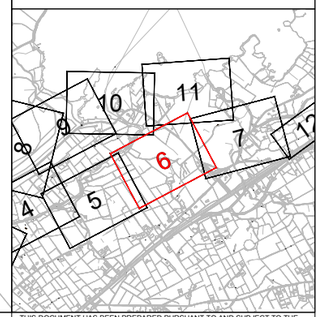

Tionscadal Éireann Project Ireland 2040

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Drawing Title

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Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
60701883	-ACM	-HGN-	SW_ZZ_ZZ_ZZ	-DR	-HG	-0101	P05

FOR CONTINUATION - REFER TO SHEET 11

FOR CONTINUATION - REFER TO SHEET 6

FOR CONTINUATION - REFER TO SHEET 12A

PC11 - WATERCOURSE CROSSING NEW CULVERT

ESKE LOOP

REST AREA

PUBLIC ROAD CROSSING AS PER TII DN-GEO-03047 FIG 5.1

S06 - RIVER DERG CROSSING NEW BRIDGE

PC13 - WATERCOURSE CROSSING NEW CULVERT

PC14 - WATERCOURSE CROSSING NEW CULVERT

L1945

L1975

2950 [EL]

2900 [EL]

3050 [EL]

3056 [EL]

6200 6250 6300 6350 6400 6450 6500 6550 6600 6650 6700 6750 6800 6850 6900 6950 7000 7050 7100 7150

0 25 50 m

SCALE @ A1: 1:1,000

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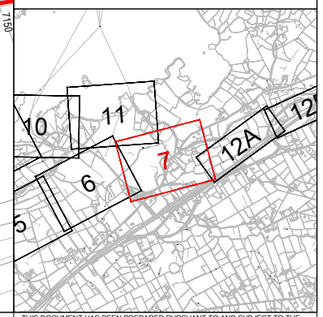

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Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number (Aecom Project ID – Location)	Originator	Volume	Role	Type	Number	Rev
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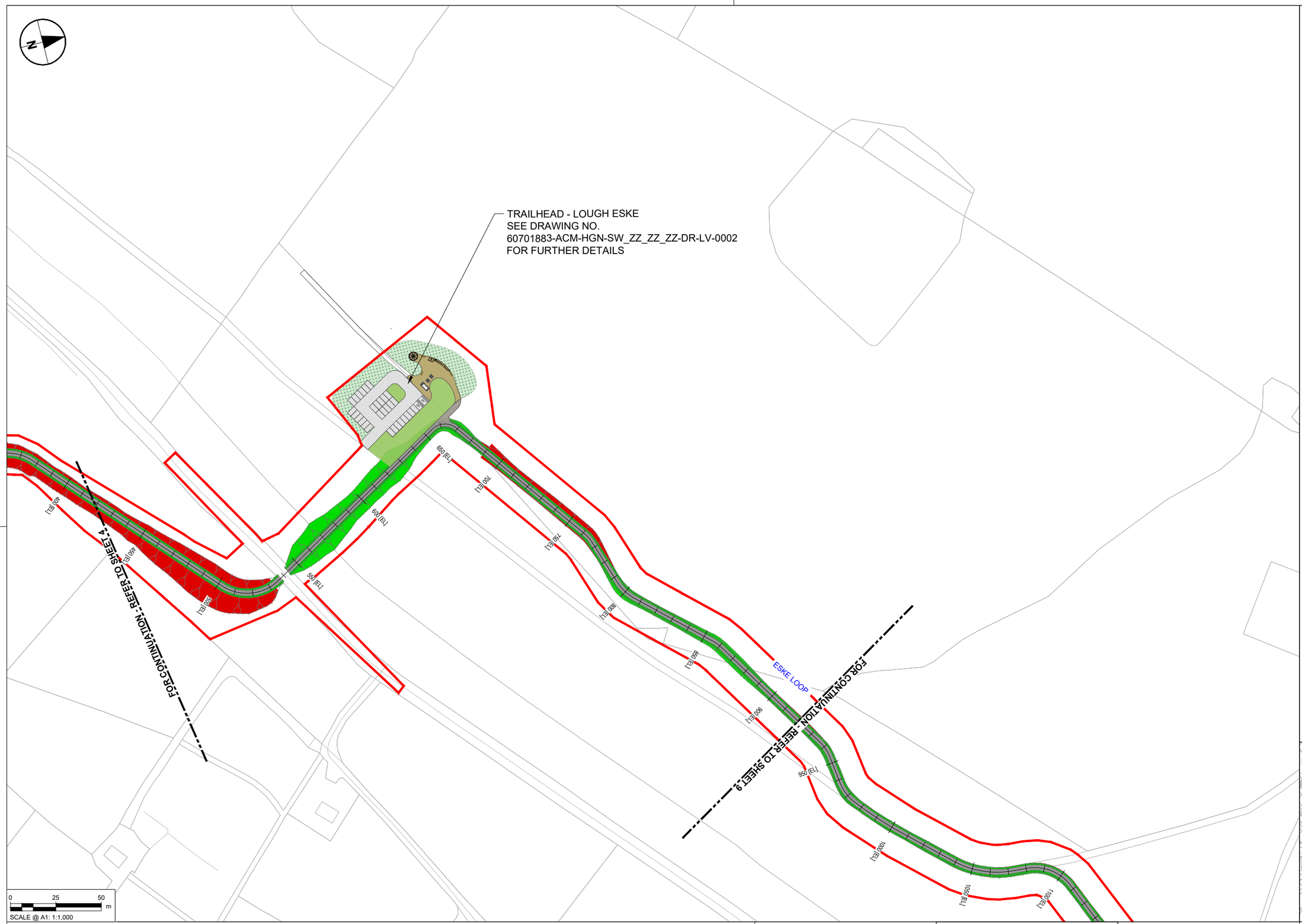

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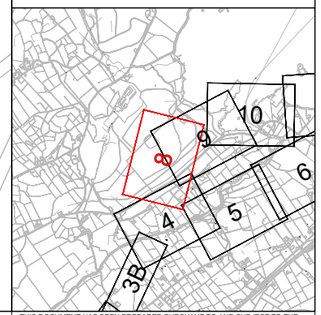
TRAILHEAD KEY

- GRASSCRETE
- ASHPHALT
- RESIN BOUND GRAVEL
- VERGE PLANTING
- HEDGE



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SERIES 0100
GENERAL ARRANGEMENT
SHEET 8 OF 31

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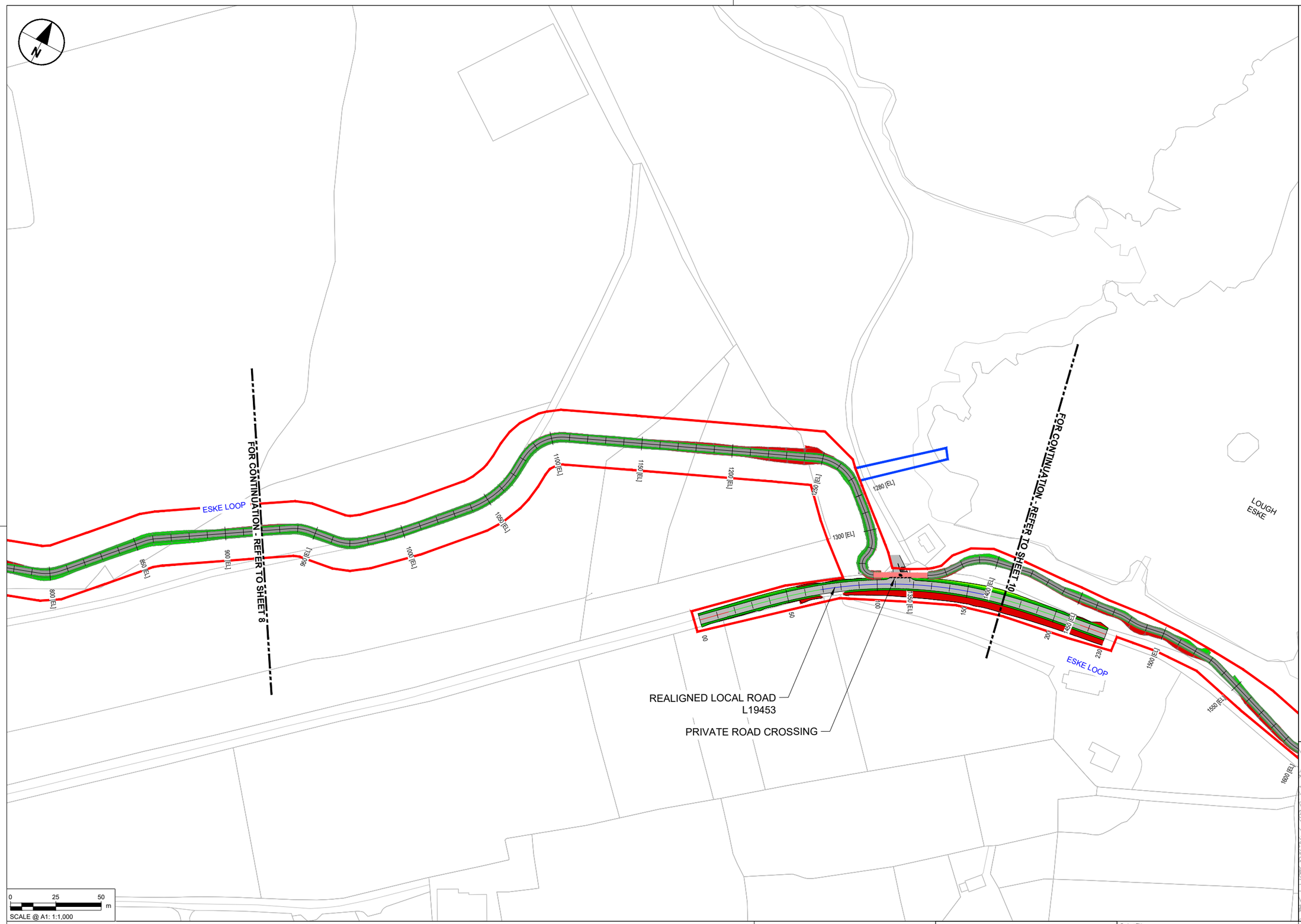
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number				Rev
Aecom Project ID	Originator	Volume		
60701883	-ACM	-HGN	-	P05
SW_ZZ_ZZ_ZZ	-DR	-HG	-0103	
Location	Type	Role	Number	



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KEY

- PERMANENT LAND TAKE BOUNDARY
- TEMPORARY LAND TAKE BOUNDARY
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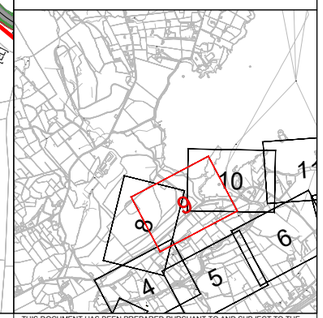
- PROPOSED GRASS VERGE
- PROPOSED EARTHWORKS - FILL
- PROPOSED EARTHWORKS - CUT
- WATERCOURSE



Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Údarás Boithrín Náisiúnta Dhún na nGall Donegal NRB

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FOR INFORMATION

REVISION DETAILS	By / Check	Date	Suffix
	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
FOR ISSUE	IL / DK	15/06/26	P05

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www.rod.ie

Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100 GENERAL ARRANGEMENT SHEET 9 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

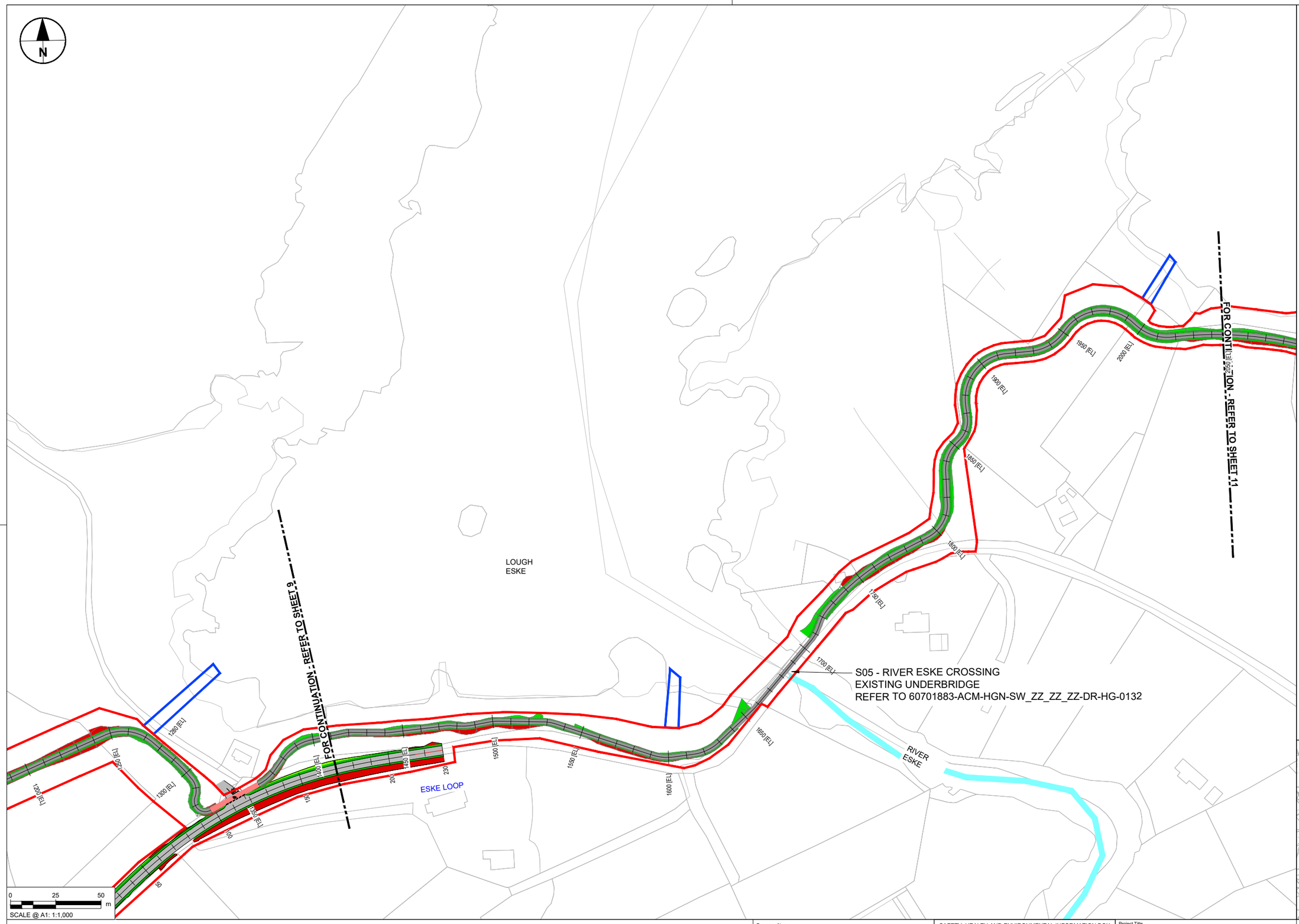
Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Rev
60701883	-ACM	-HGN-	P05

Location	Type	Role	Number
SW_ZZ_ZZ_ZZ	-DR	-HG	-0104



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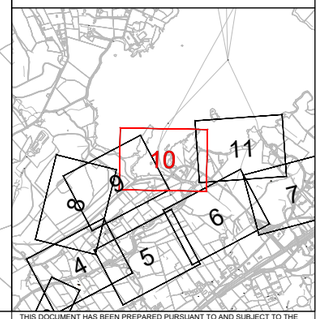

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithre Náisiúnta Dhún na nGall

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	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
FOR ISSUE	IL / DK	15/06/26	P05

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 10 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

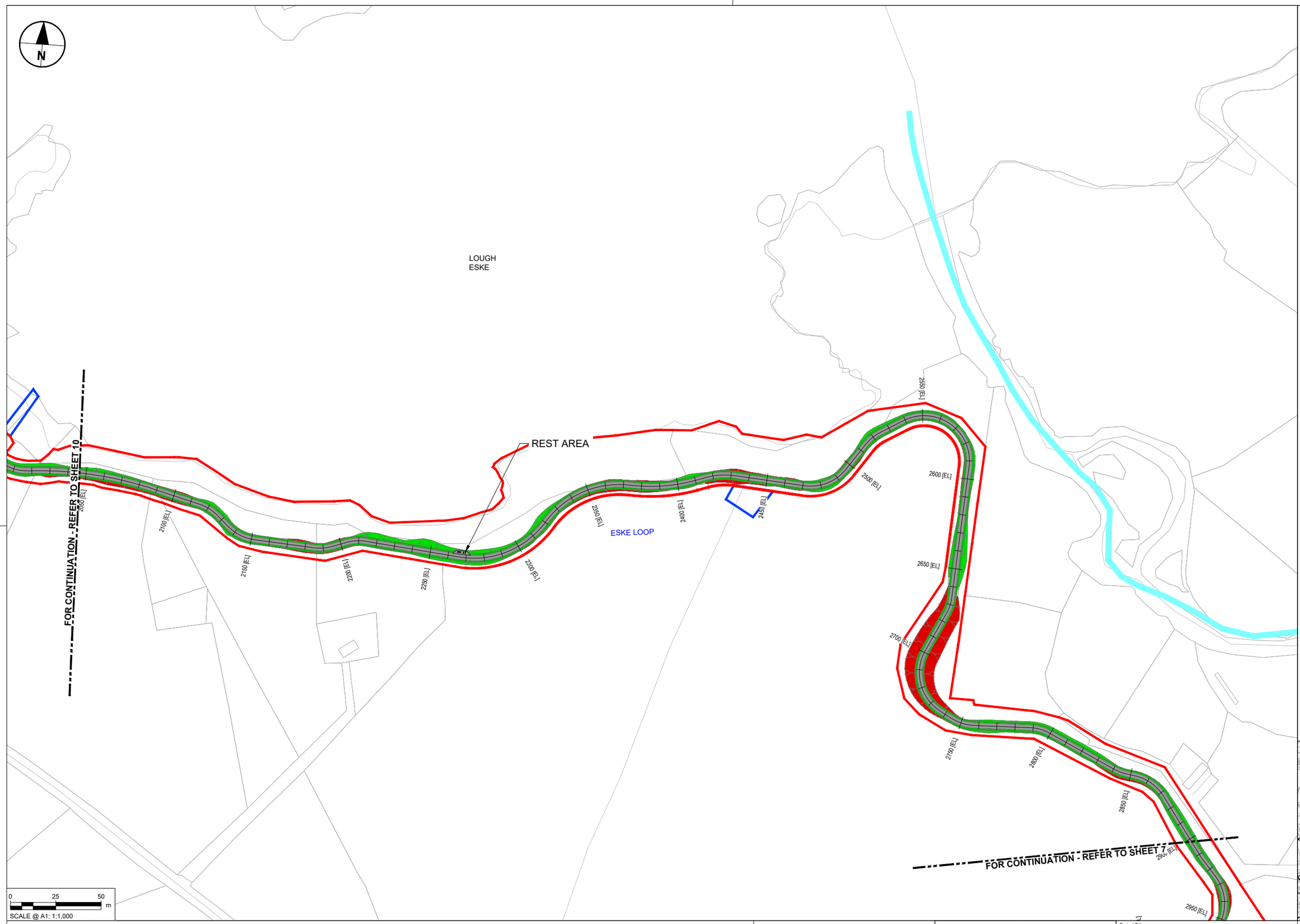
Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID: 60701883 | Originator: -ACM | Volume: -HGN- | Role: SW_ZZ_ZZ_ZZ | Type: -DR | Number: -HG-0105

Location

Rev: P05



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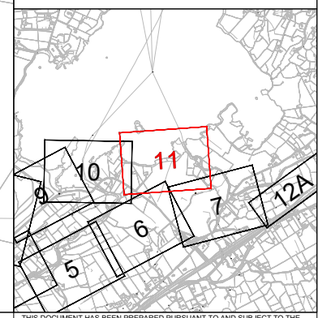

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Oifig Boithre Náisiúnta Dhún na nGall Donegal NRO

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	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
FOR ISSUE	IL / DK	15/06/26	P05

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Project Title: Barnesmore Gap Greenway

Drawing Title: SERIES 0100 GENERAL ARRANGEMENT SHEET 11 OF 31

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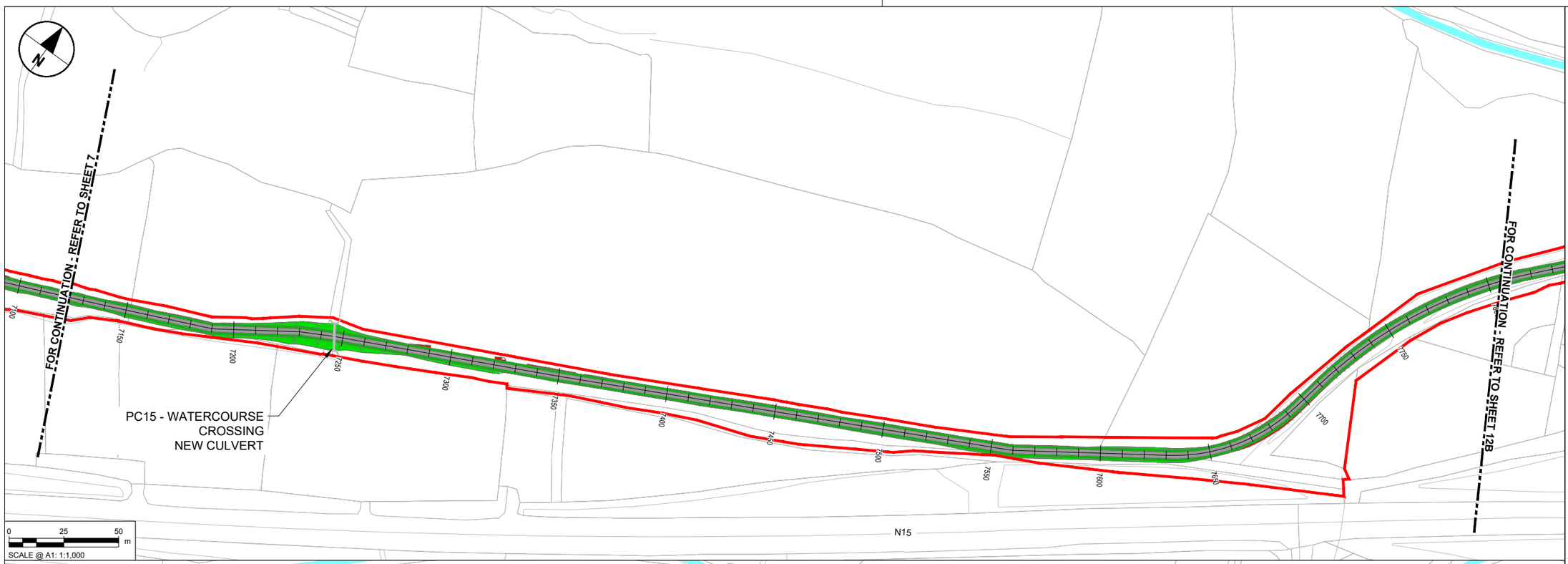
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

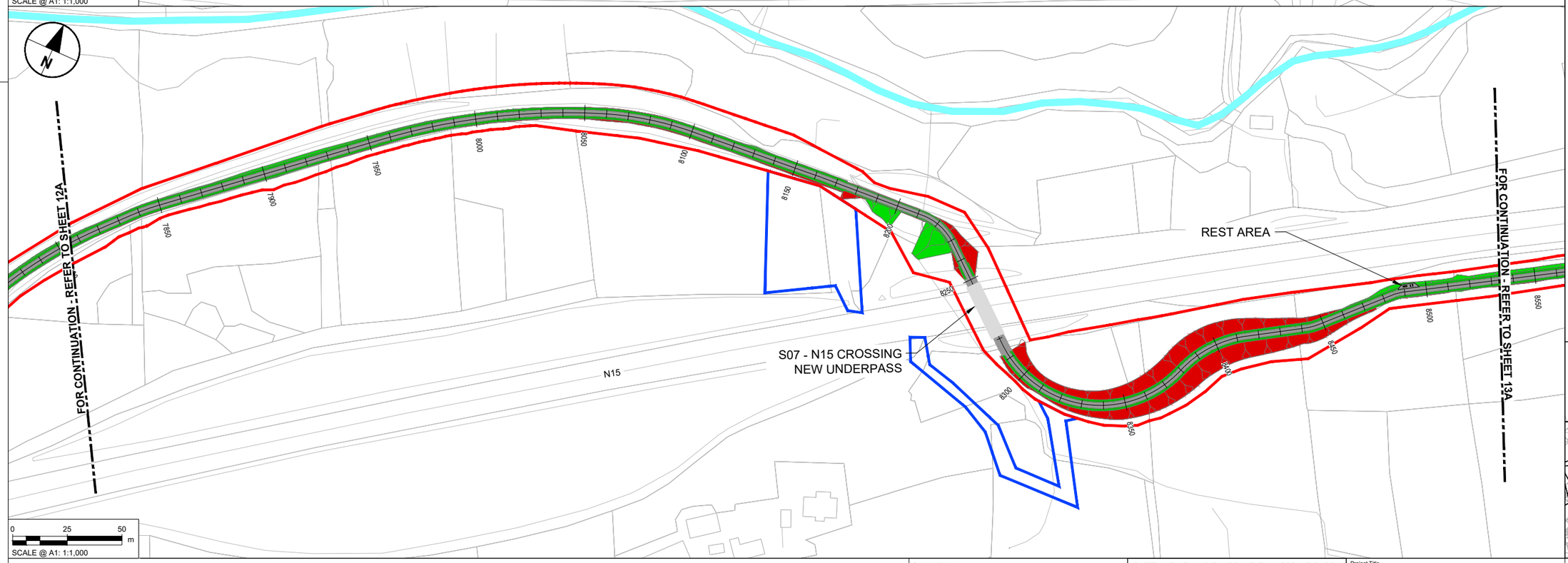
Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number: Aecom Project ID 60701883 - Originator ACM - Volume HGN - Type SW - Role ZZ - Number ZZ - DR - HG - 0106 (Location)

Rev: P05





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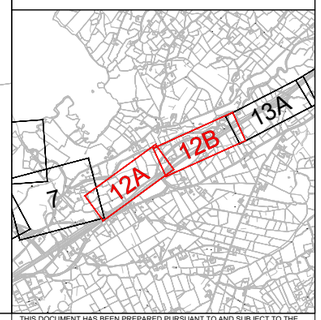

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithre Náisiúnta Dhún na nGall

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FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS				

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 12 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No. 60701883

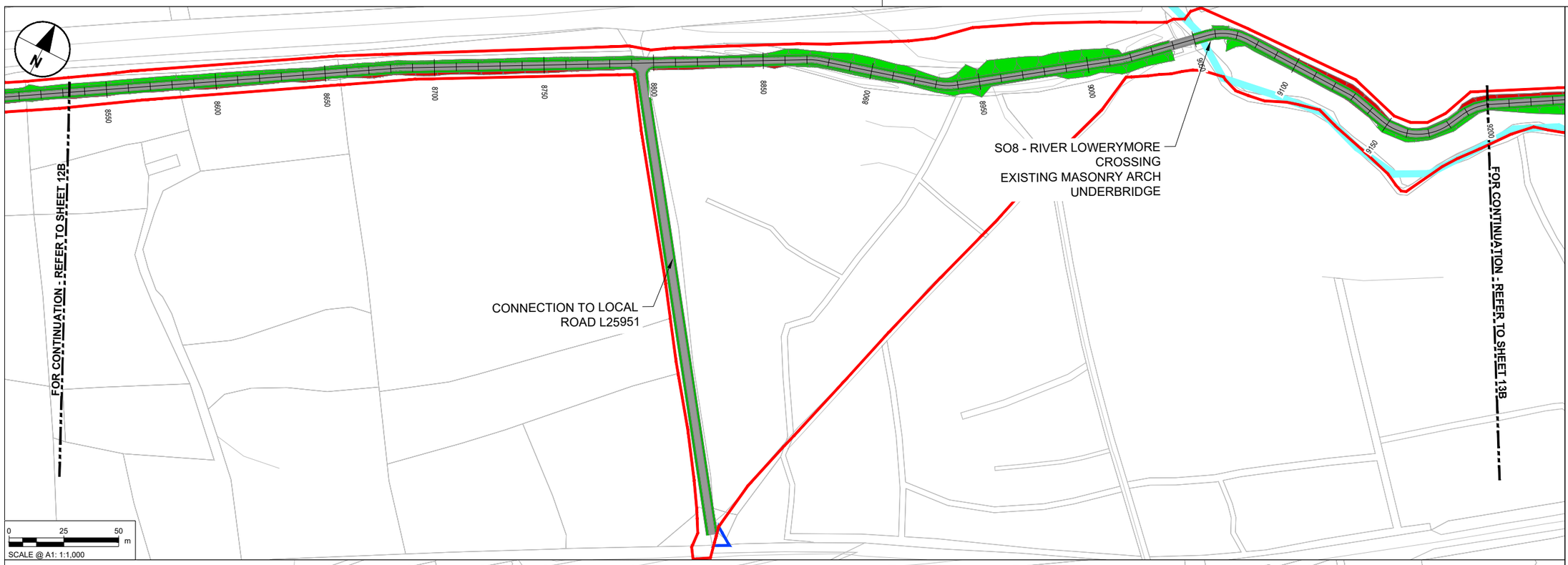
Suitability S2

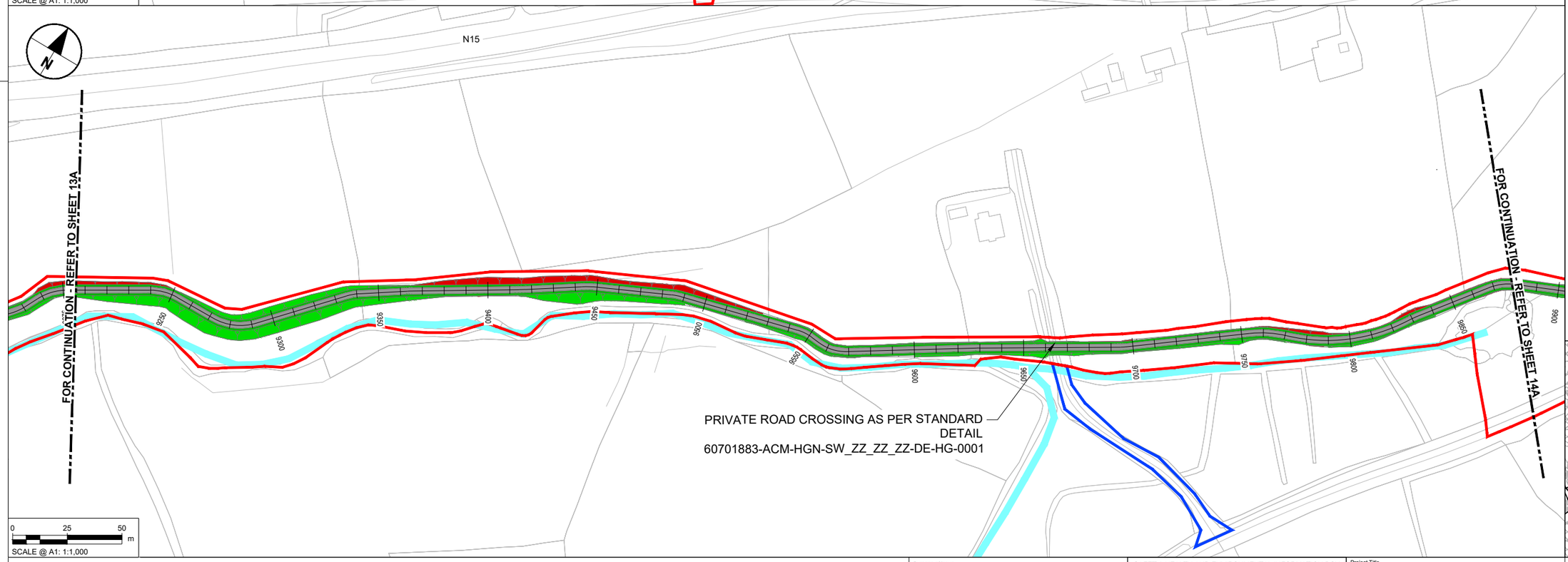
Scale @ A1 1:1000

Volume General

Drawing Number
Aecom Project ID 60701883 | Originator -ACM | Volume -HGN-
SW_ZZ_ZZ_ZZ -DR-HG-0107
Location | Type | Role | Number

Rev P05





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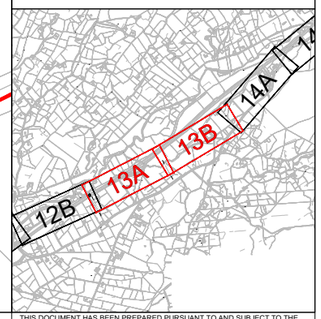

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

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FOR ISSUE	By / Check	Date	Suffix
	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
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REVISION DETAILS

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 13 OF 31

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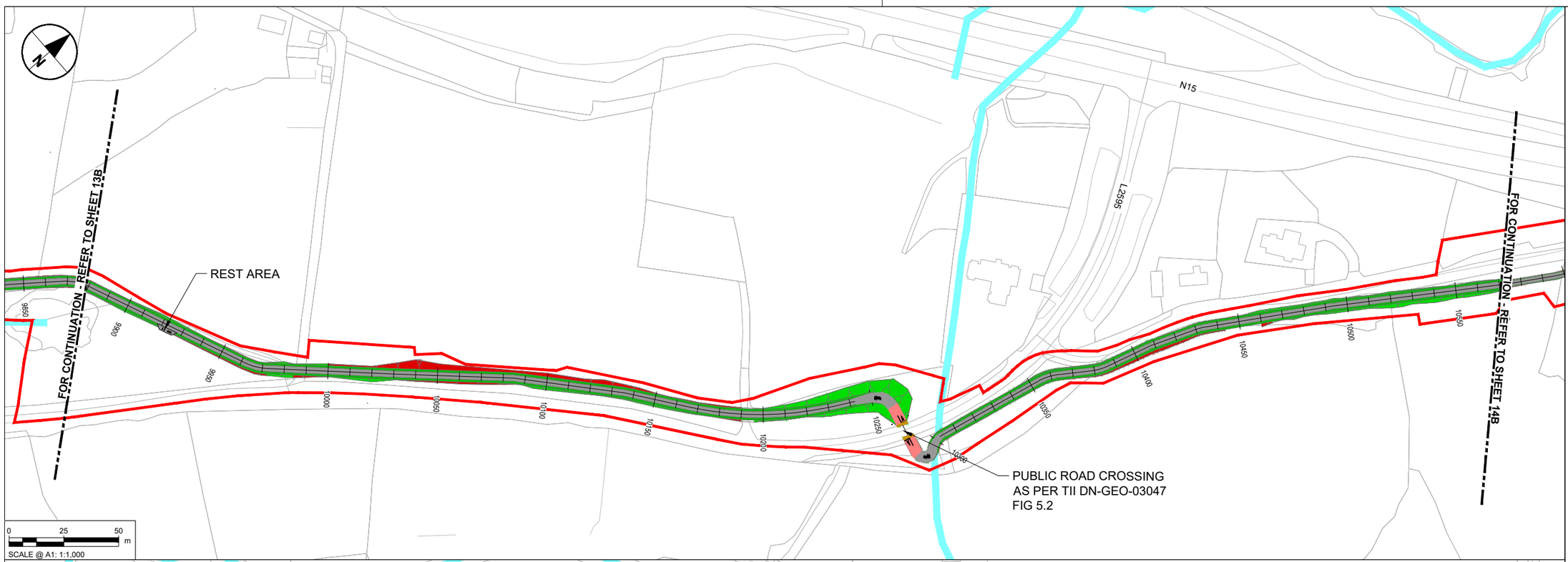
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

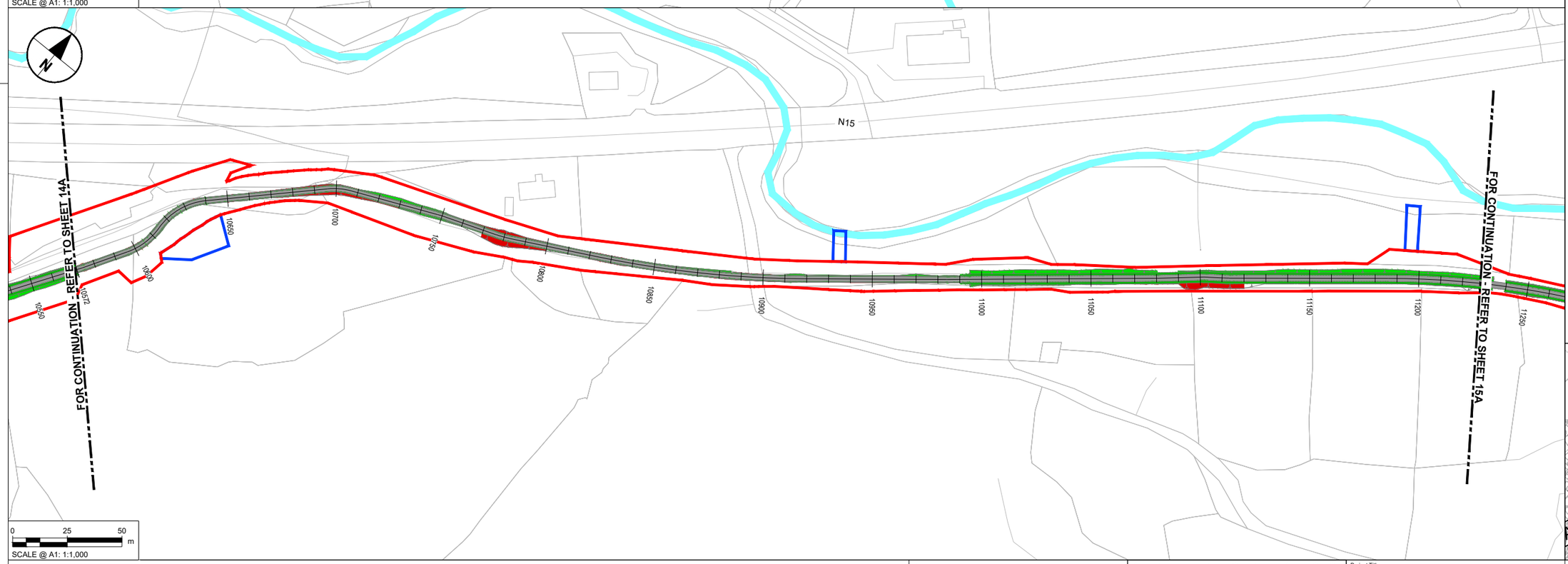
Internal Project No. 60701883 | Suitability S2

Scale @ A1 1:1000 | Volume General

Drawing Number: Aecom Project ID 60701883 (Location) | Originator -ACM | Volume -HGN- (Type, Role) | SW_ZZ_ZZ_ZZ -DR-HG-0108 (Number)

Rev P05





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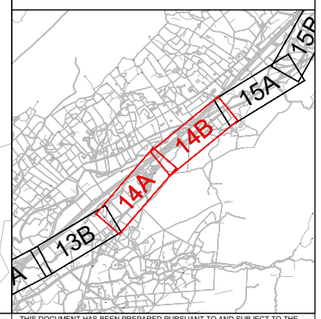

Tionscadal Éireann Project Ireland 2040

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	By / Check	Date	Suffix
	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
FOR ISSUE	IL / DK	15/06/26	P05
REVISION DETAILS	By / Check	Date	Suffix

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www.rod.ie

Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 14 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

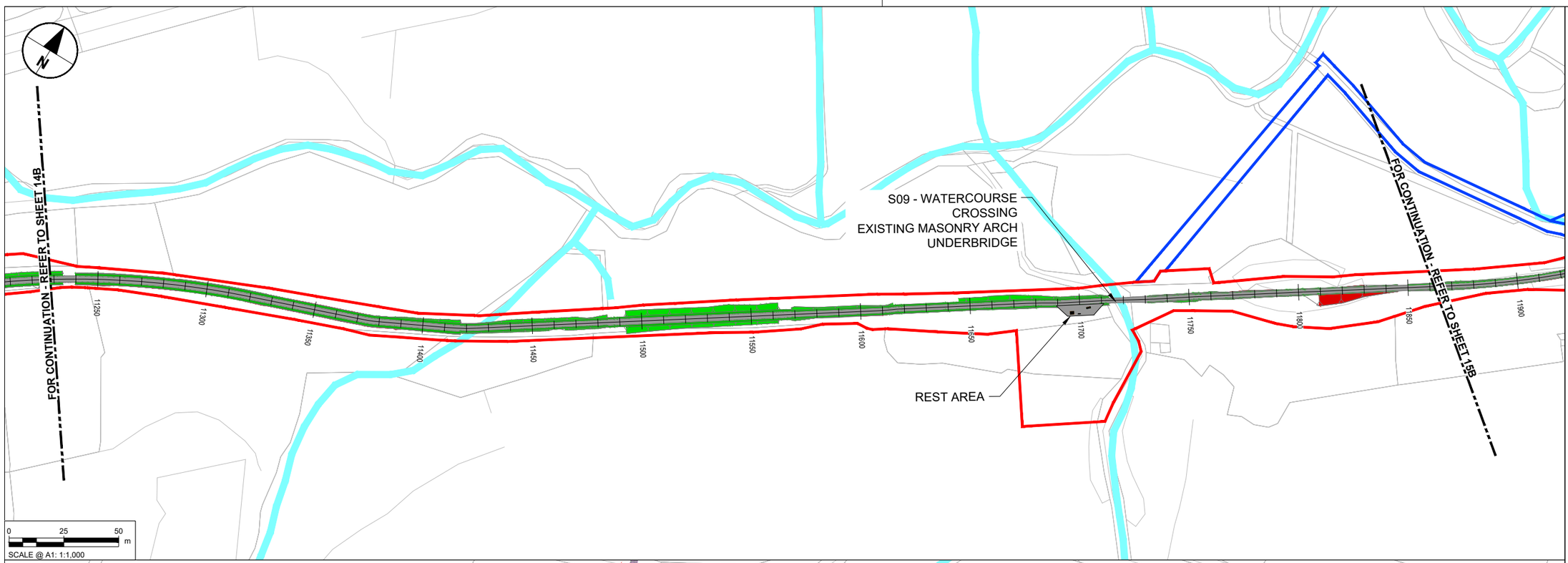
Internal Project No.	Suitability
60701883	S2

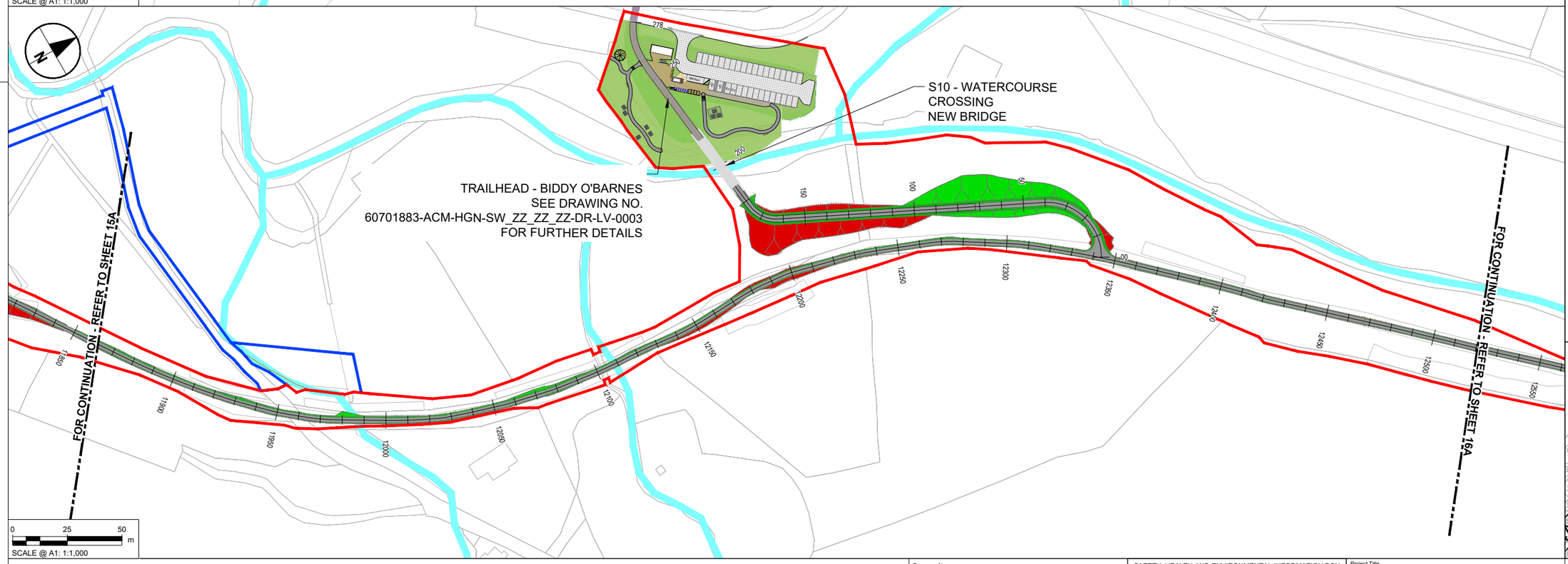
Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Type	Role	Number	Rev
60701883	-ACM	-HGN-	SW_ZZ_ZZ_ZZ	-DR	-HG-0109	P05

Location





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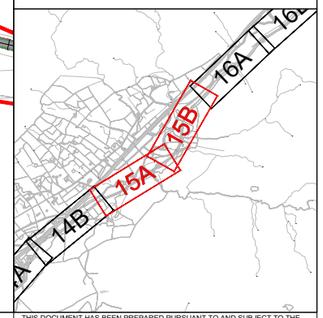
- TEMPORARY LAND TAKE BOUNDARY
- PROPOSED GREENWAY PAVEMENT
- PROPOSED GRASS VERGE
- PROPOSED EARTHWORKS - FILL
- PROPOSED EARTHWORKS - CUT
- WATERCOURSE

TRAILHEAD KEY

- GRASSCRETE
- ASHPHALT
- RESIN BOUND GRAVEL
- VERGE PLANTING
- HEDGE



Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithne Náisiúnta Dhún na nGall

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FOR INFORMATION

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	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
FOR ISSUE	IL / DK	15/06/26	P05
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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 15 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

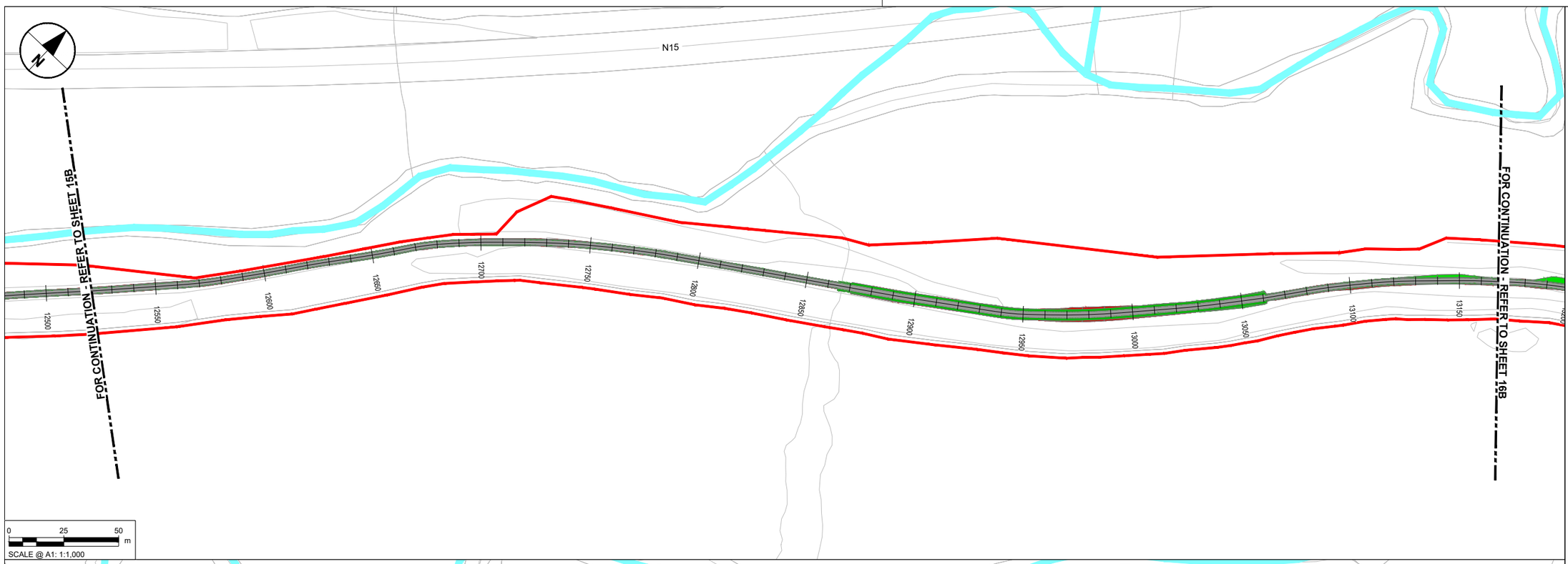
Internal Project No. 60701883

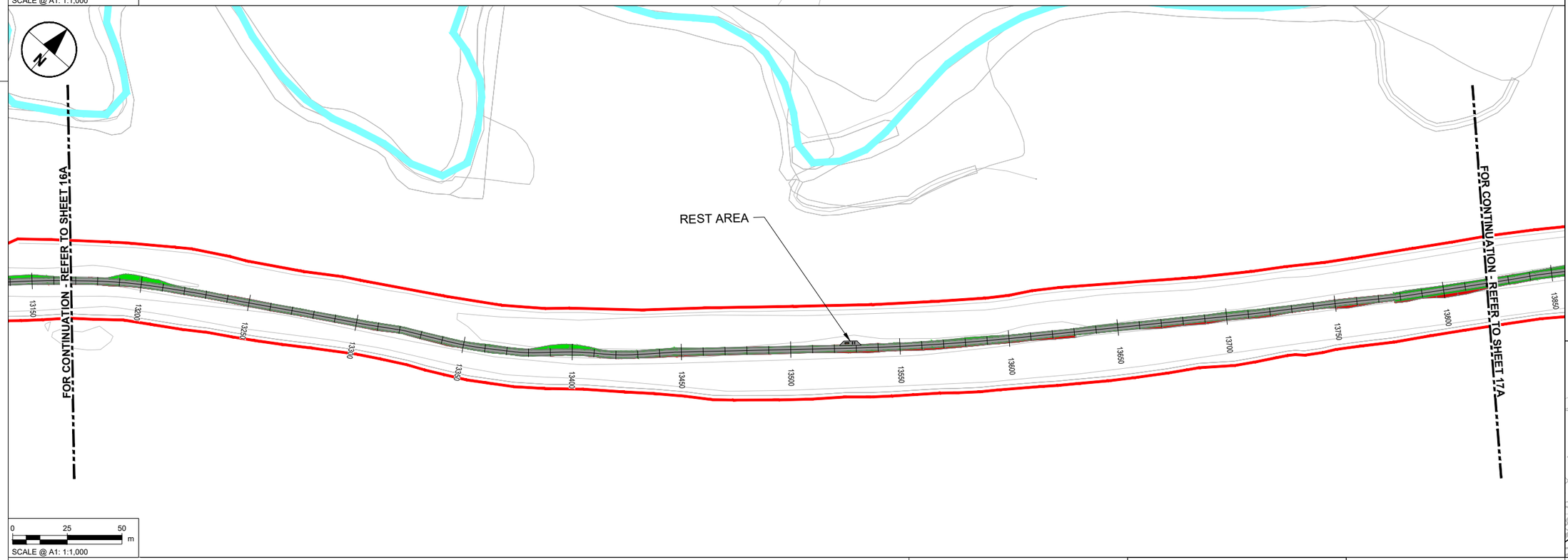
Suitability S2

Scale @ A1 1:1000

Volume General

Drawing Number
Aecom Project ID 60701883 | Originator -ACM | Volume -HGN- | Rev P05
SW_ZZ_ZZ_ZZ -DR -HG-0110
Location | Type | Role | Number





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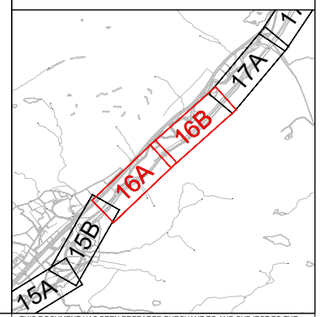
- WATERCOURSE



Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithre Náisiúnta Dhún na nGall

Greenway

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Purpose of issue

FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS	By	Check	Date	Suffix

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 16 OF 31

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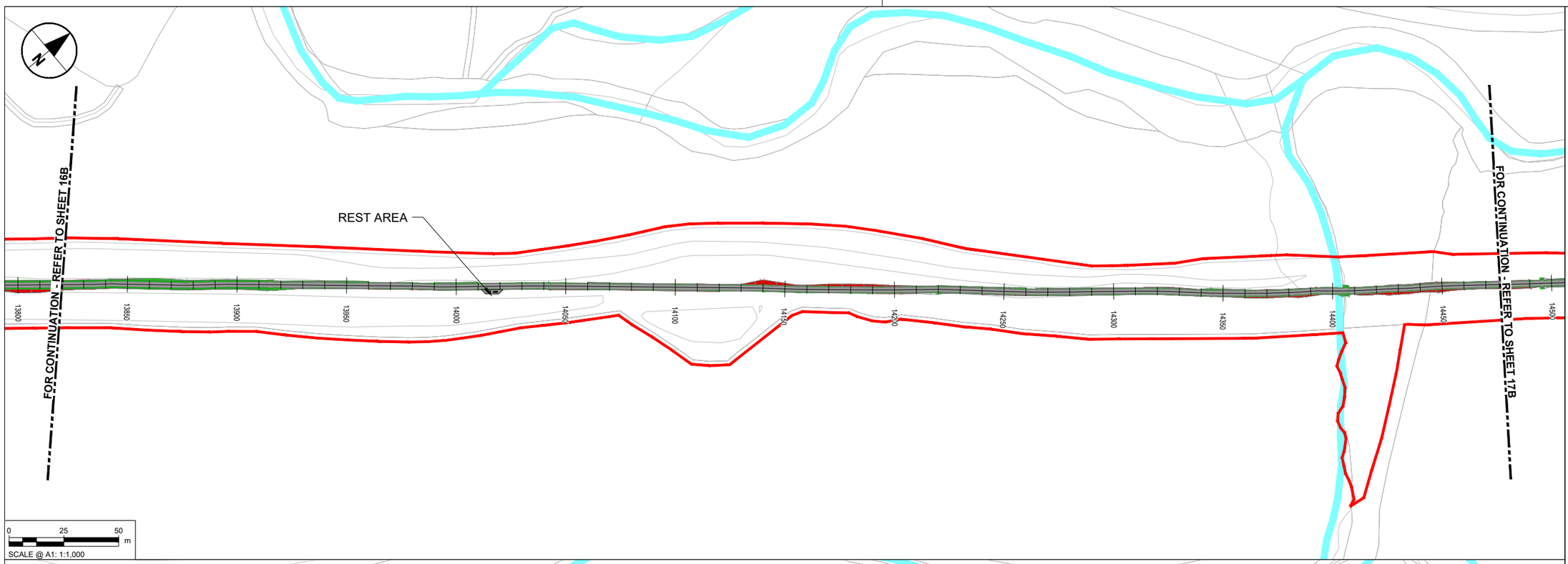
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

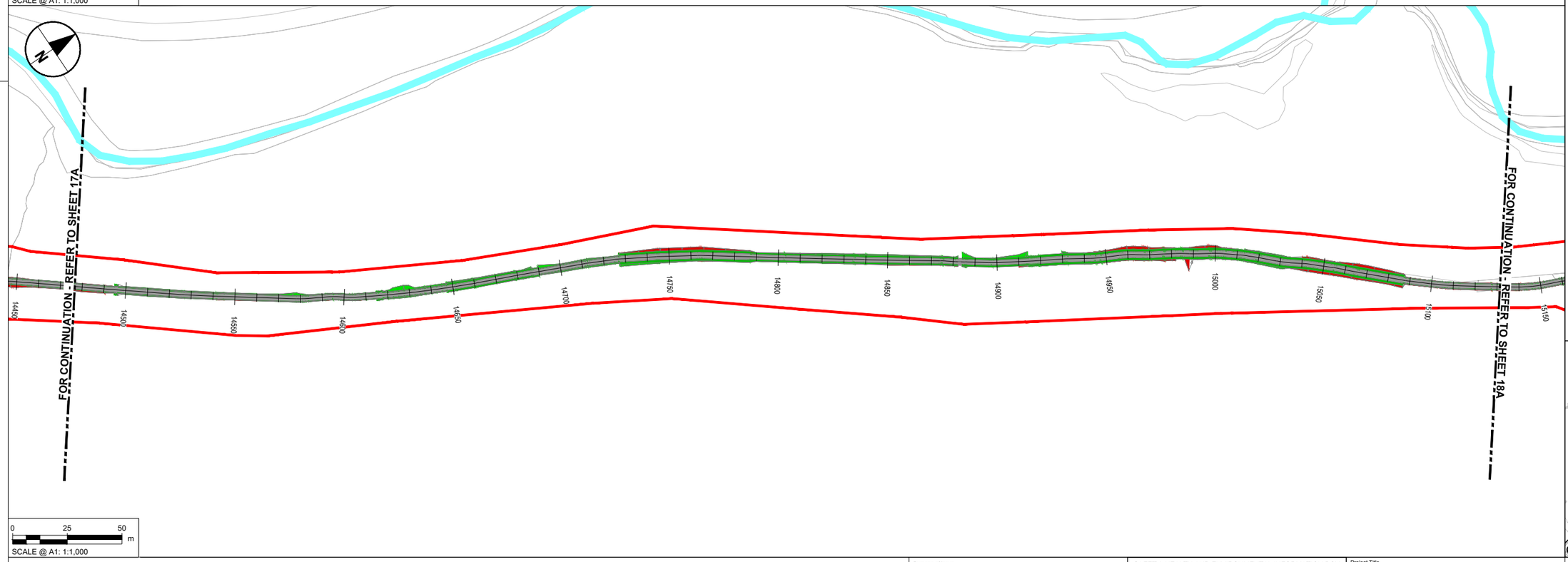
Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number: 60701883 -ACM -HGN- SW_ZZ_ZZ_ZZ -DR -HG-0111
(Aecom Project ID | Originator | Volume | Location | Type | Role | Number)

Rev: P05





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KEY

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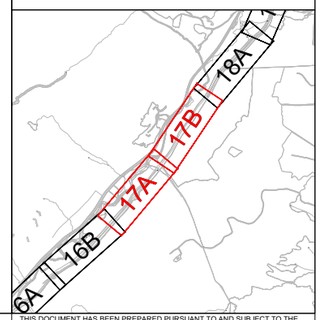

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithne Náisiúnta Dhún na nGall

Greenway

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FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS				

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 17 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
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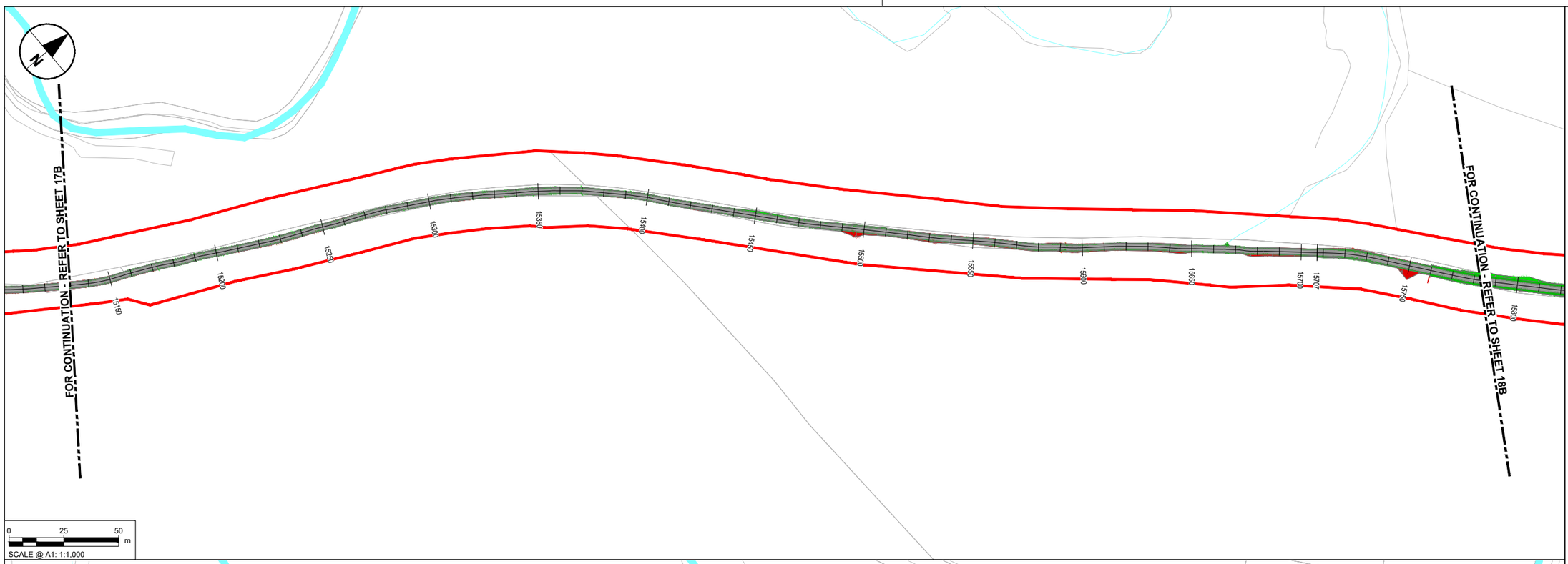

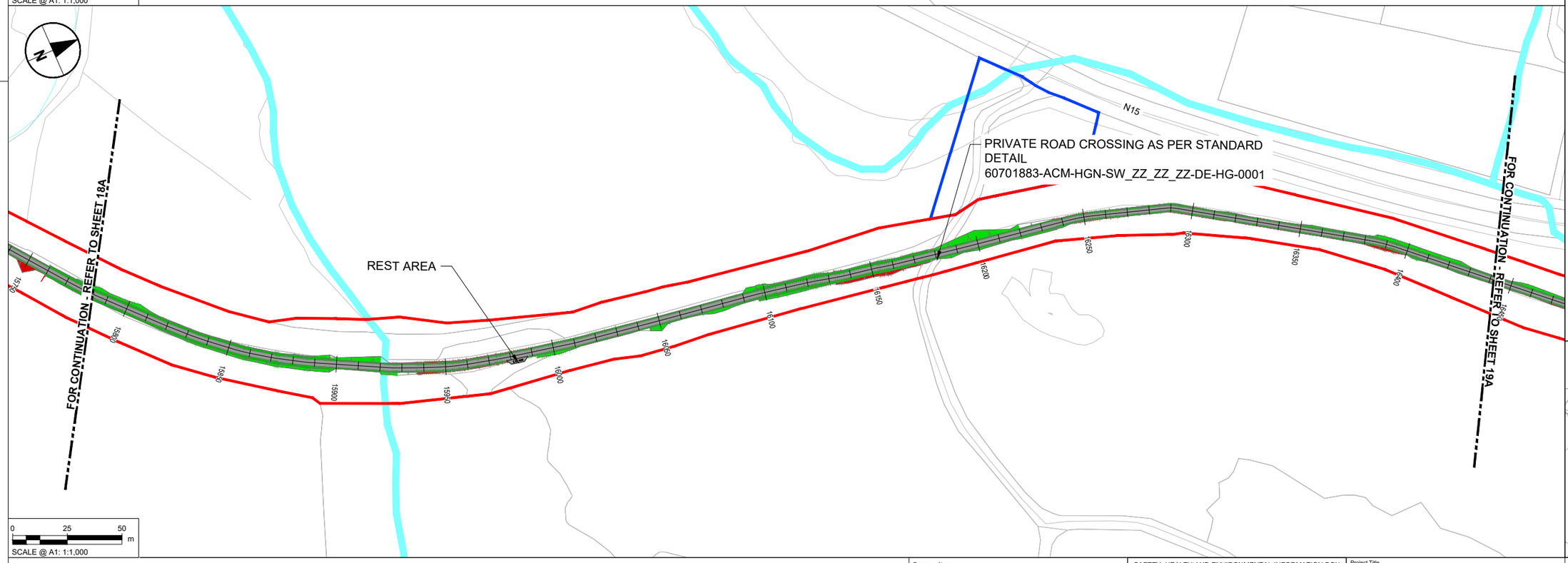

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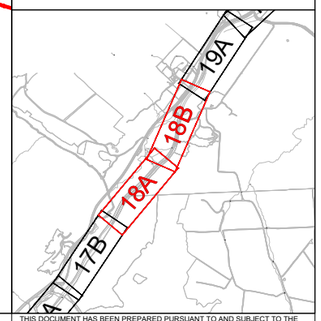

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

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	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05

REVISION DETAILS

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 18 OF 31

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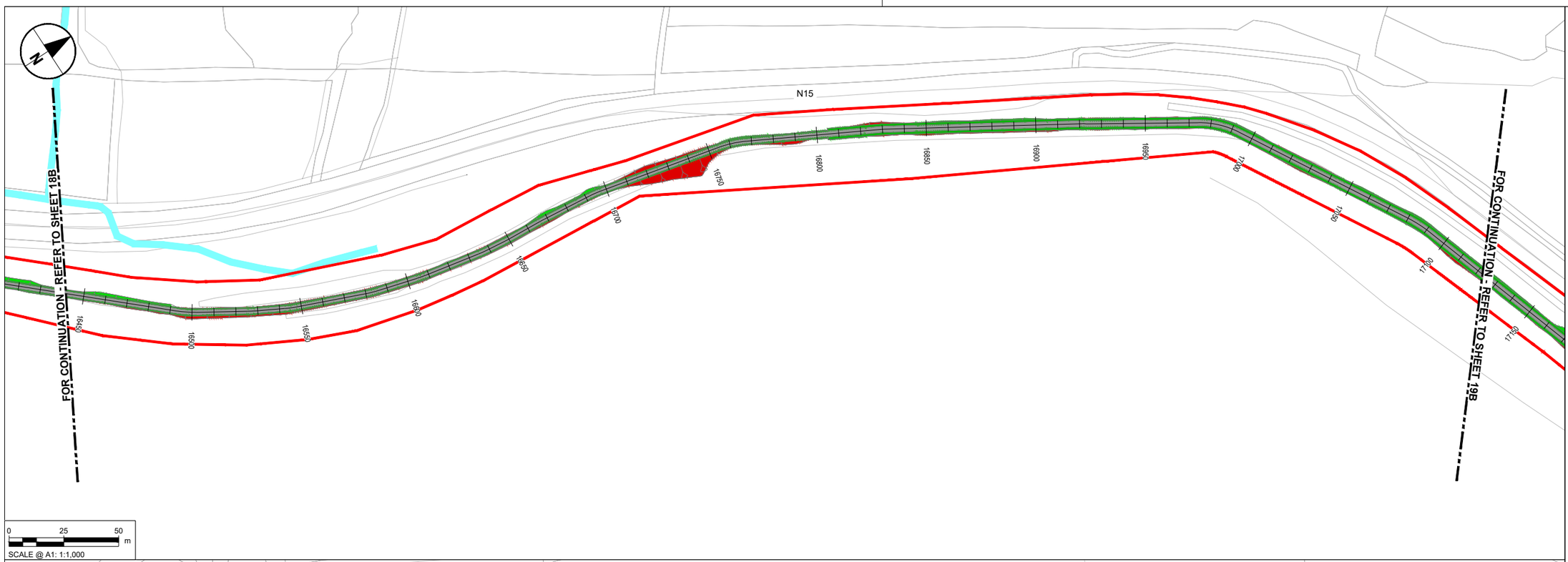
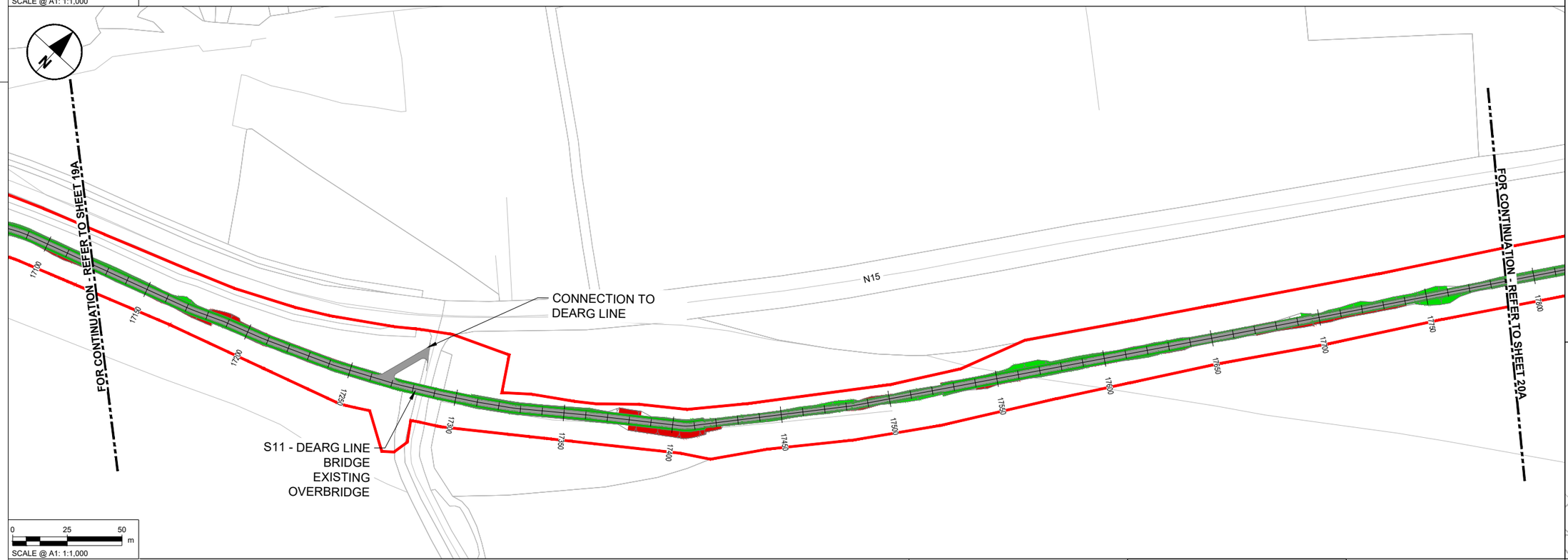
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number (Aecom Project ID – Originator – Volume – Role – Type – Number)	Rev
60701883-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-HG-0113	P05





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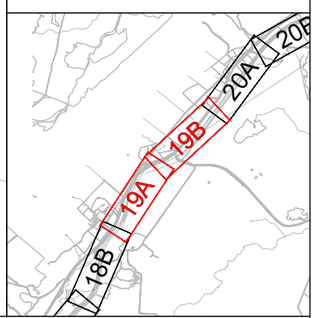

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boichte Naisiúnta Dhún na nGall

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	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS	By	Check	Date	Suffix

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100 GENERAL ARRANGEMENT SHEET 19 OF 31

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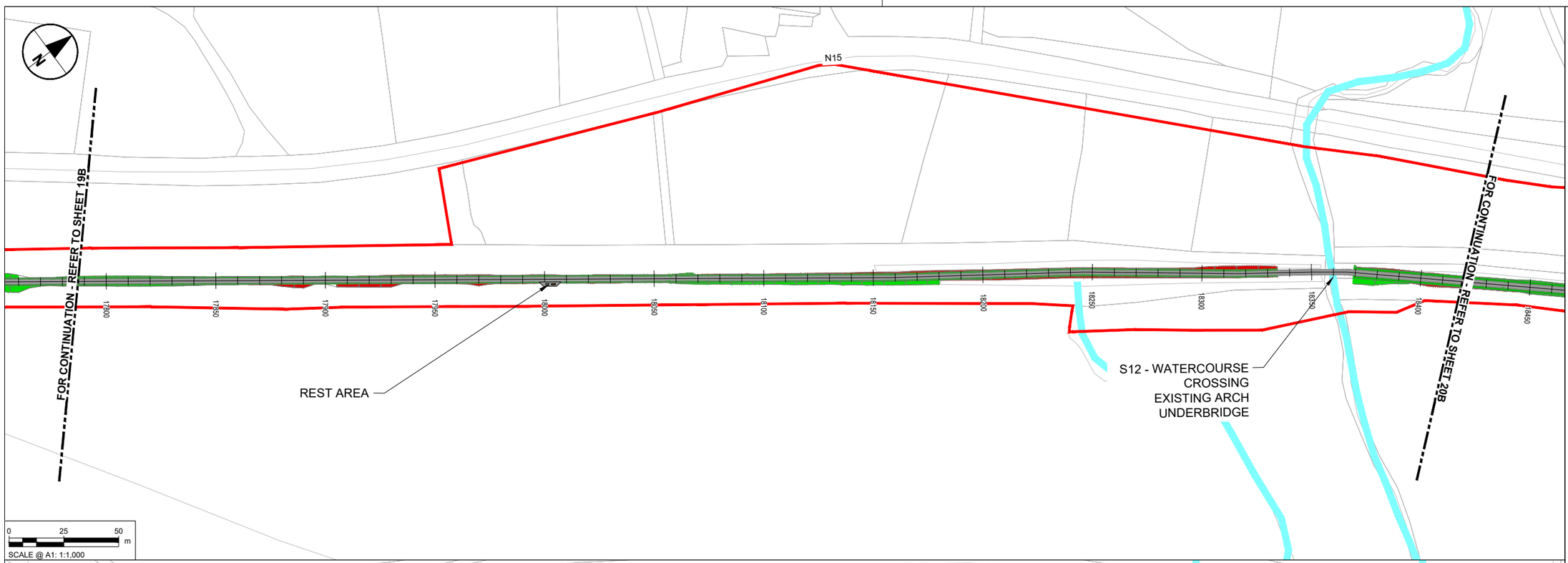
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

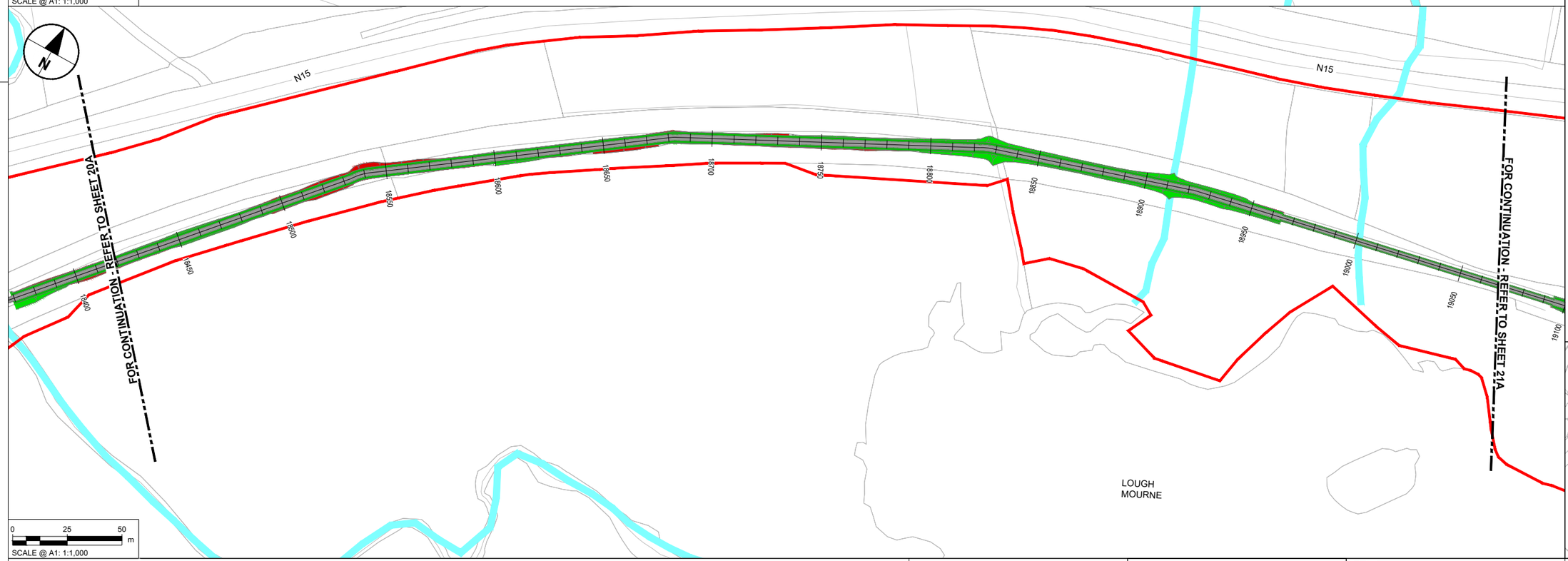
Internal Project No. 60701883 | Suitability S2

Scale @ A1 1:1000 | Volume General

Drawing Number: Aecom Project ID 60701883 - Originator ACM - Volume HGN - Location SW_ZZ_ZZ_ZZ - Type DR - Role HG - Number 0114

Rev P05





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KEY

- PERMANENT LAND TAKE BOUNDARY
- TEMPORARY LAND TAKE BOUNDARY
- PROPOSED GREENWAY PAVEMENT
- PROPOSED GRASS VERGE
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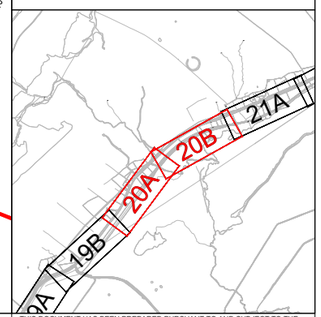

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boichne Naisiúnta Dhún na nGall

Greenway

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FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS				

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Project Title

Barnesmore Gap Greenway

Drawing Title

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
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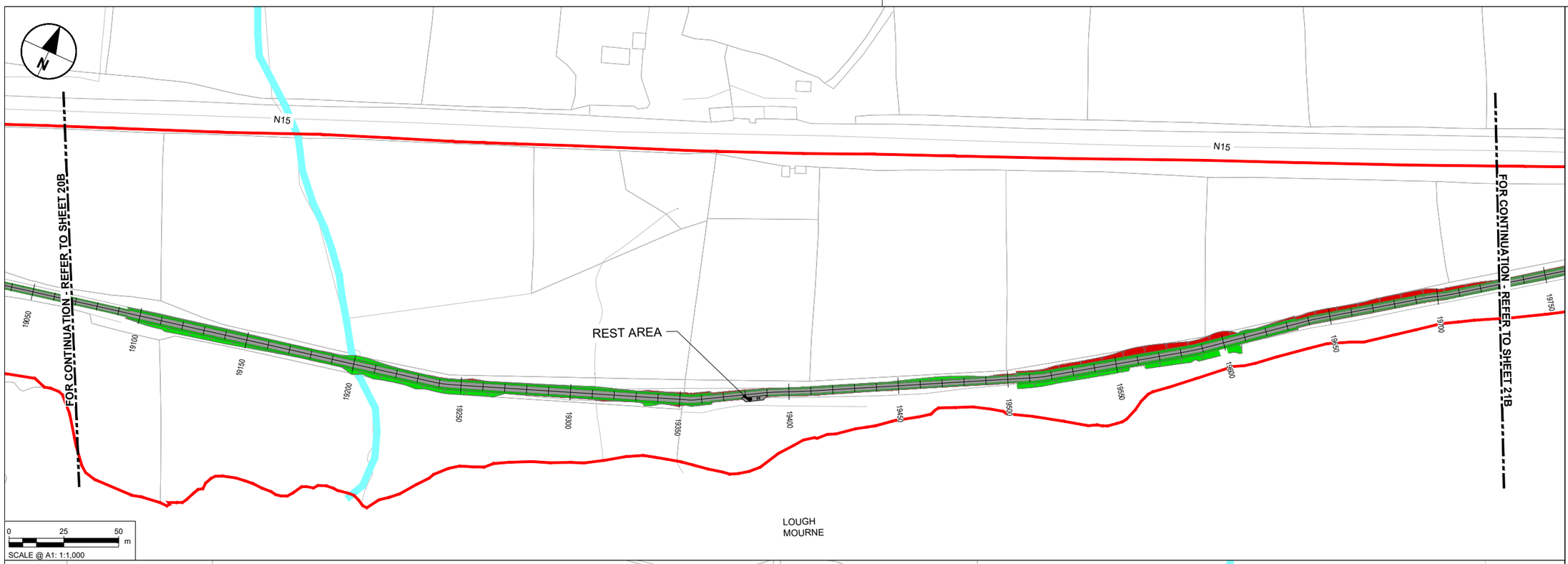

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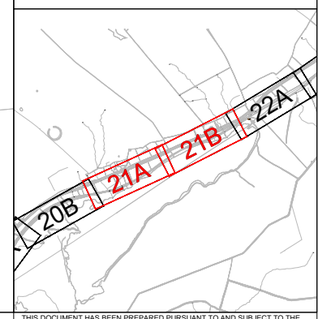

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithre Náisiúnta Dhún na nGall

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	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
FOR ISSUE	IL / DK	15/06/26	P05

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Project Title

Barnesmore Gap Greenway

Drawing Title

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
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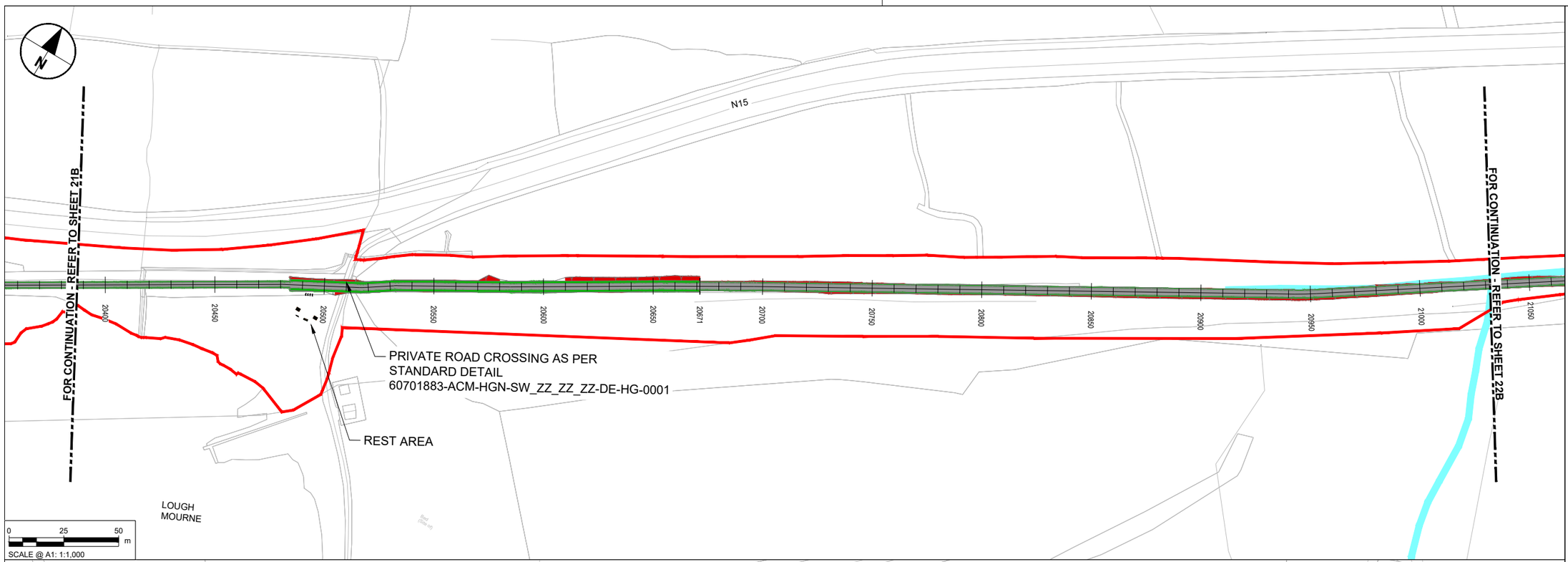

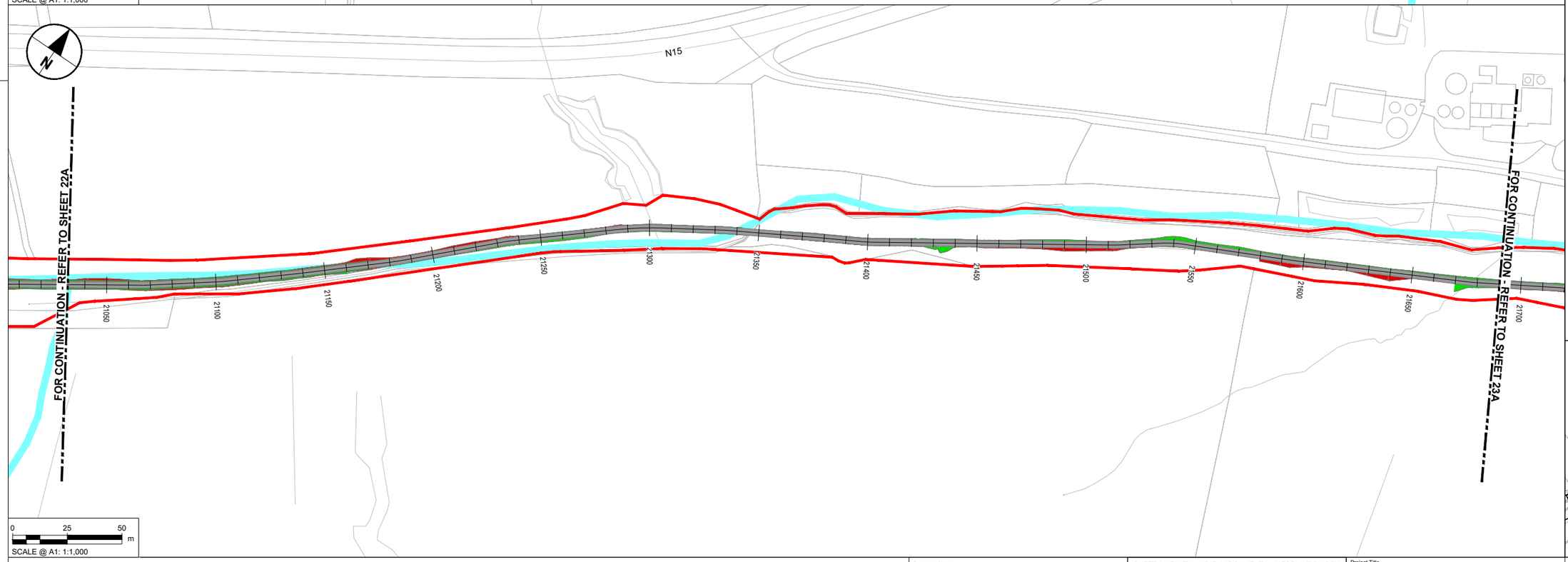

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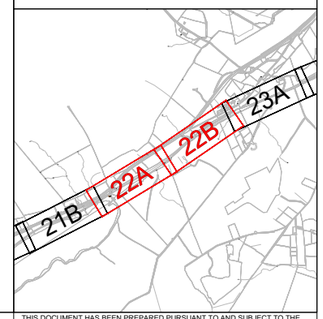

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

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Greenway

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FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS				

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Project Title

Barnesmore Gap Greenway

Drawing Title

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
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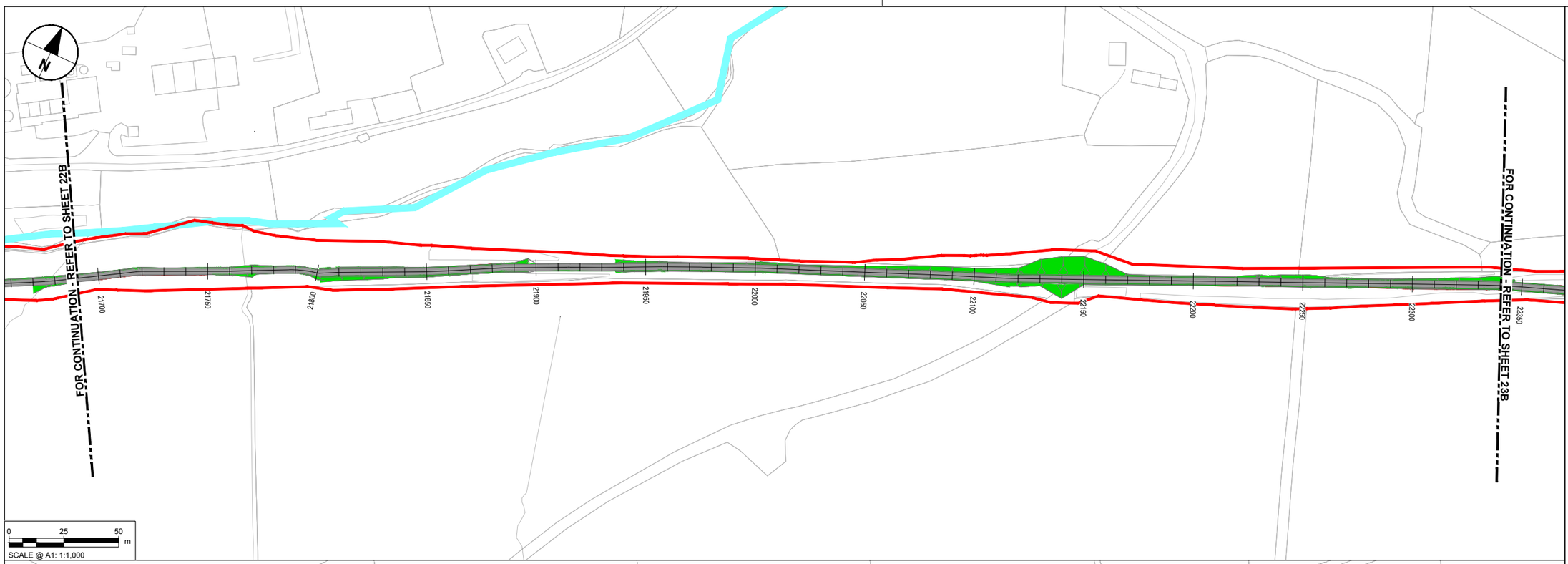

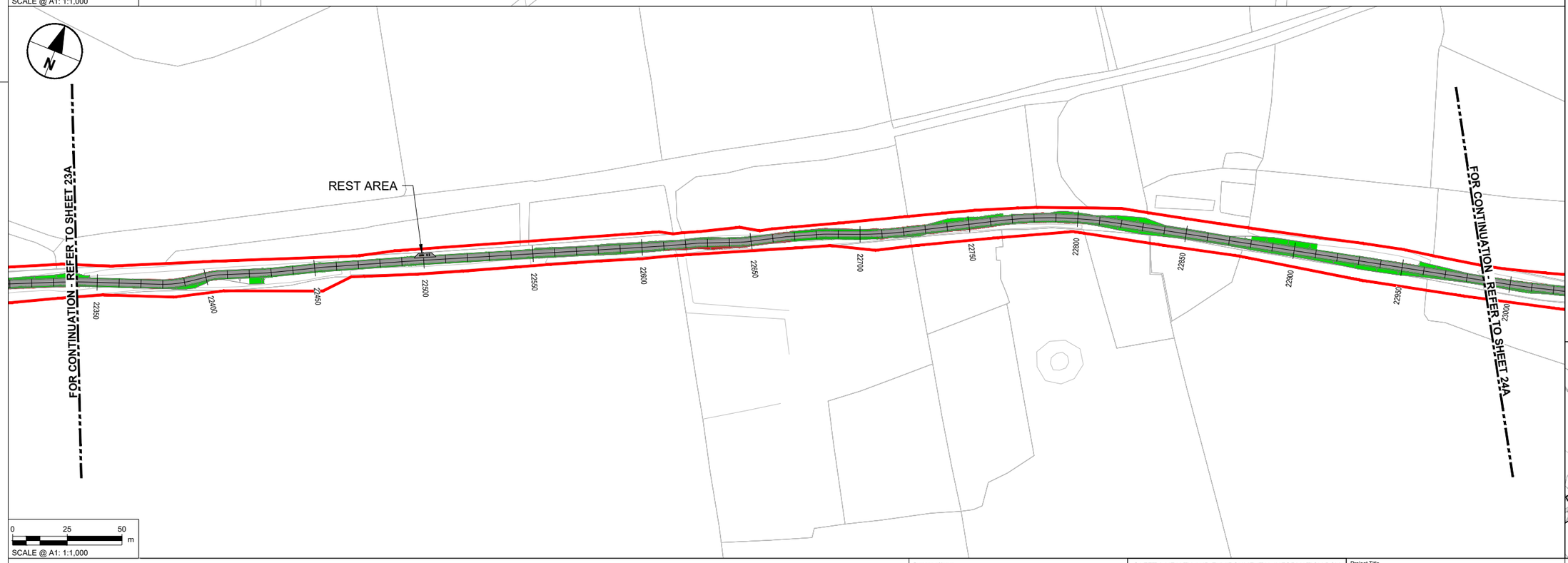

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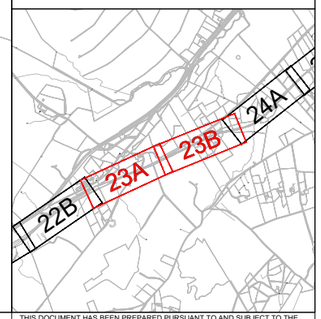

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

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	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
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FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS				

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Project Title

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Drawing Title

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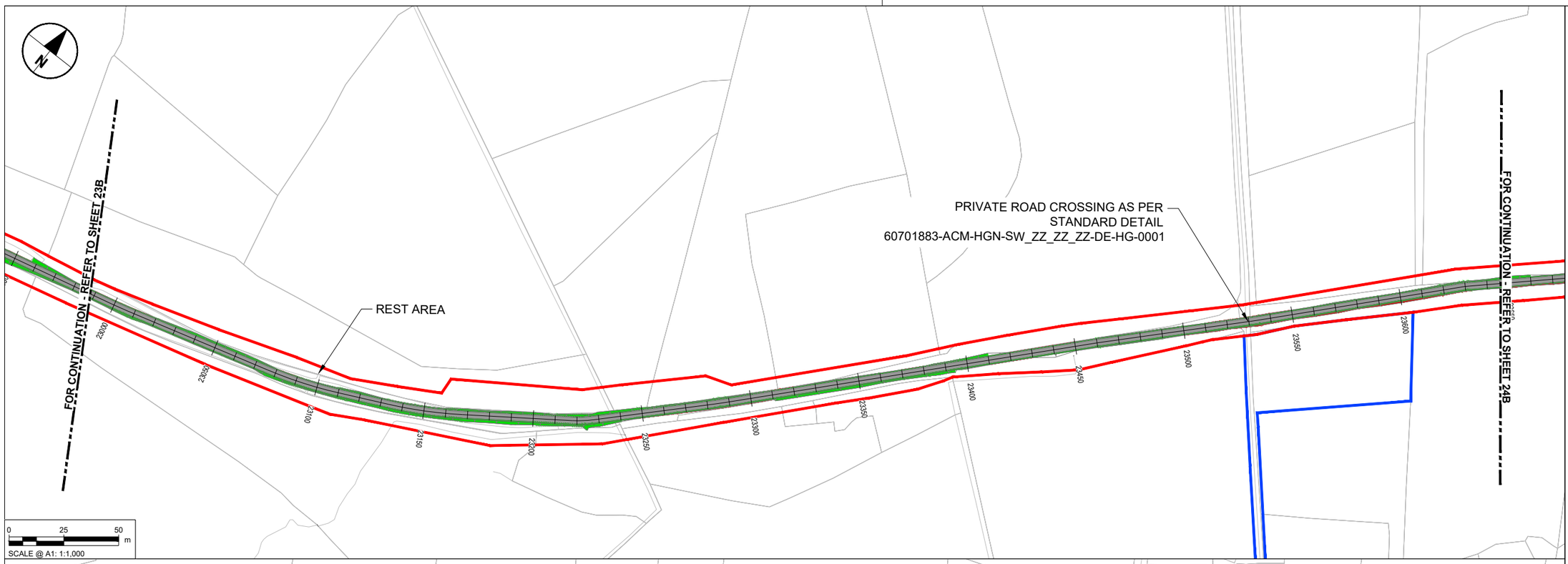
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

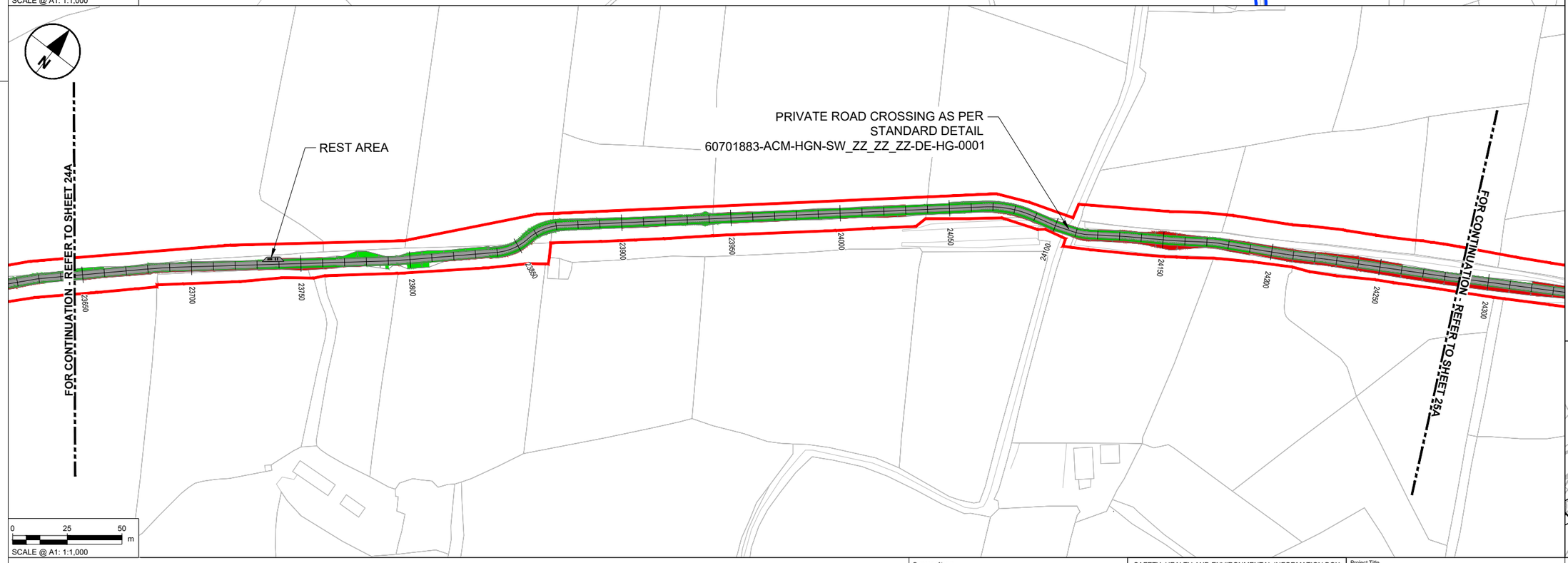
Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
60701883	-ACM	-HGN-	SW_ZZ_ZZ_ZZ	-DR	-HG	-0118	P05





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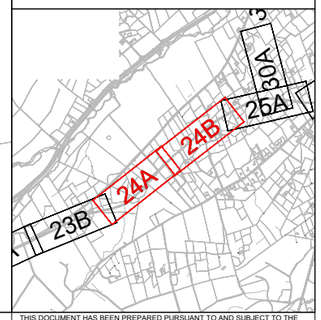

Tionscadal Éireann Project Ireland 2040

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	IL / DK	22/09/25	P02
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FOR ISSUE	IL / DK	15/06/26	P05

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 24 OF 31

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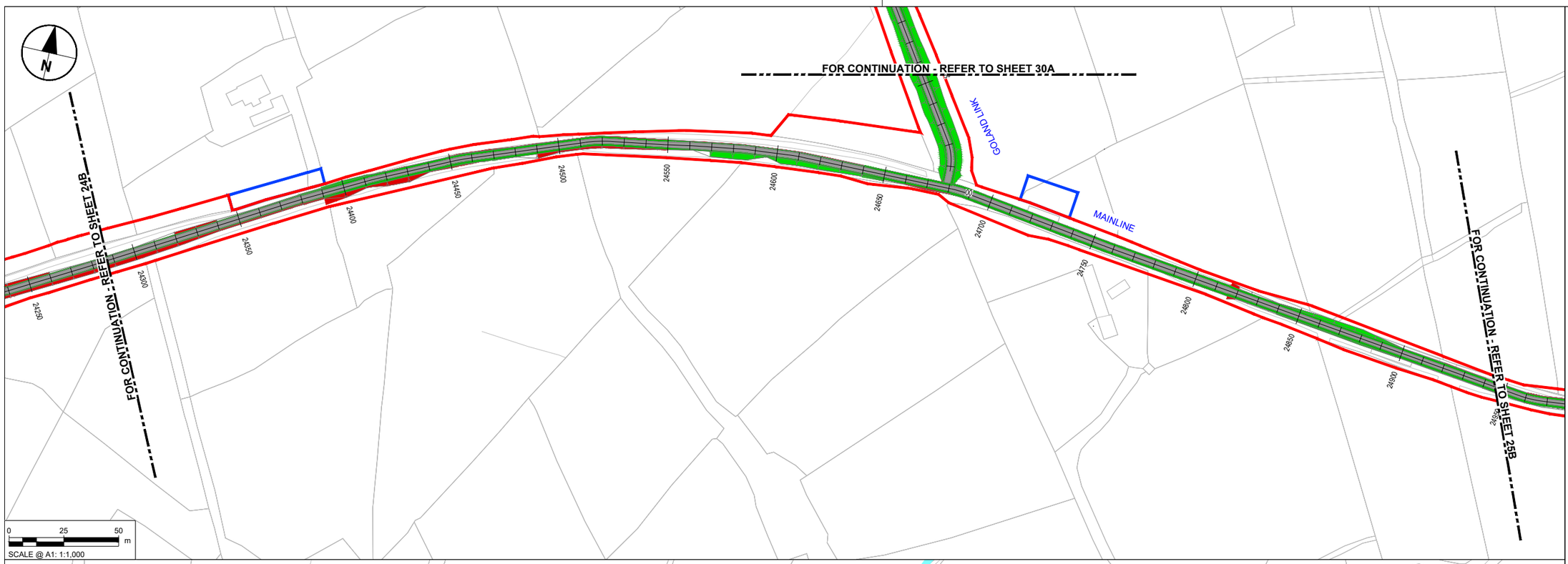
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

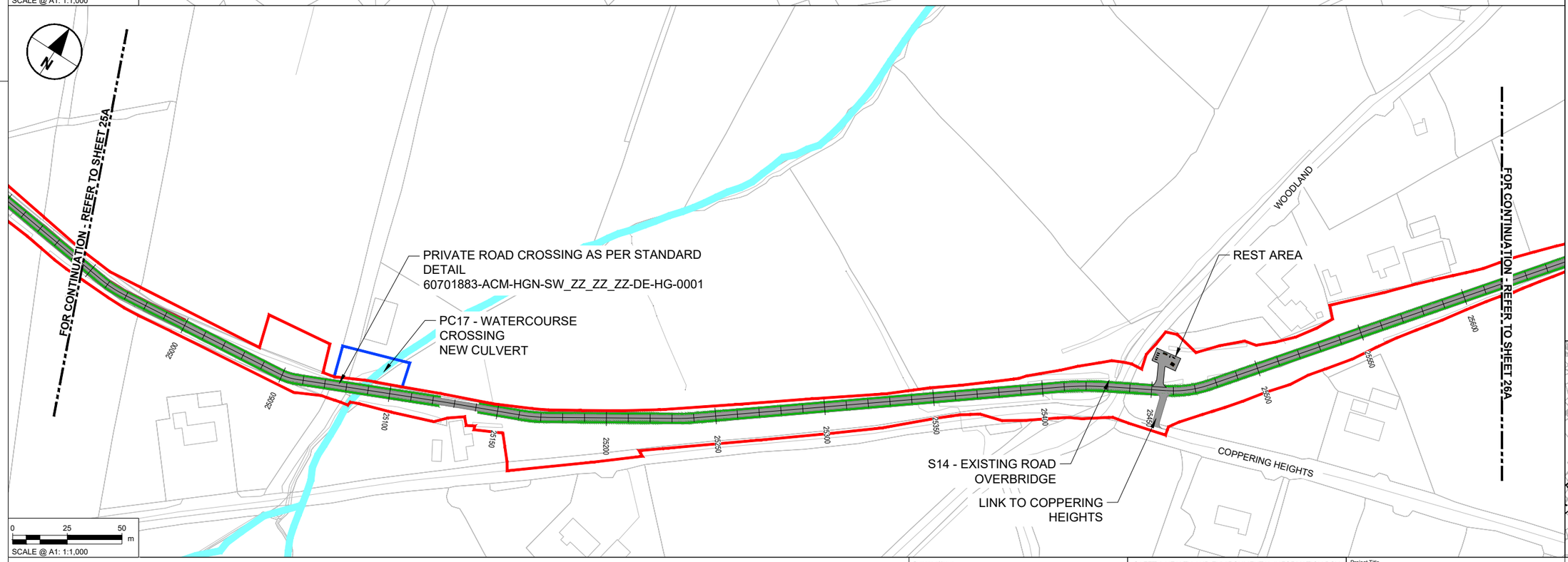
Internal Project No. 60701883 | Suitability S2

Scale @ A1 1:1000 | Volume General

Drawing Number: Aecom Project ID 60701883 | Originator -ACM | Volume -HGN- | Location SW_ZZ_ZZ_ZZ | Type -DR | Role -HG- | Number -0119

Rev P05





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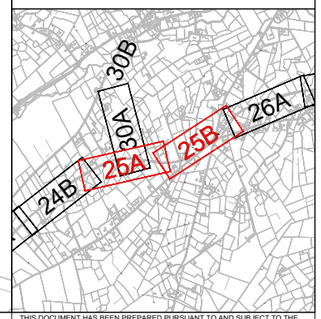

Tionscadal Éireann Project Ireland 2040

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FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05

REVISION DETAILS

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www.rod.ie

Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 25 OF 31

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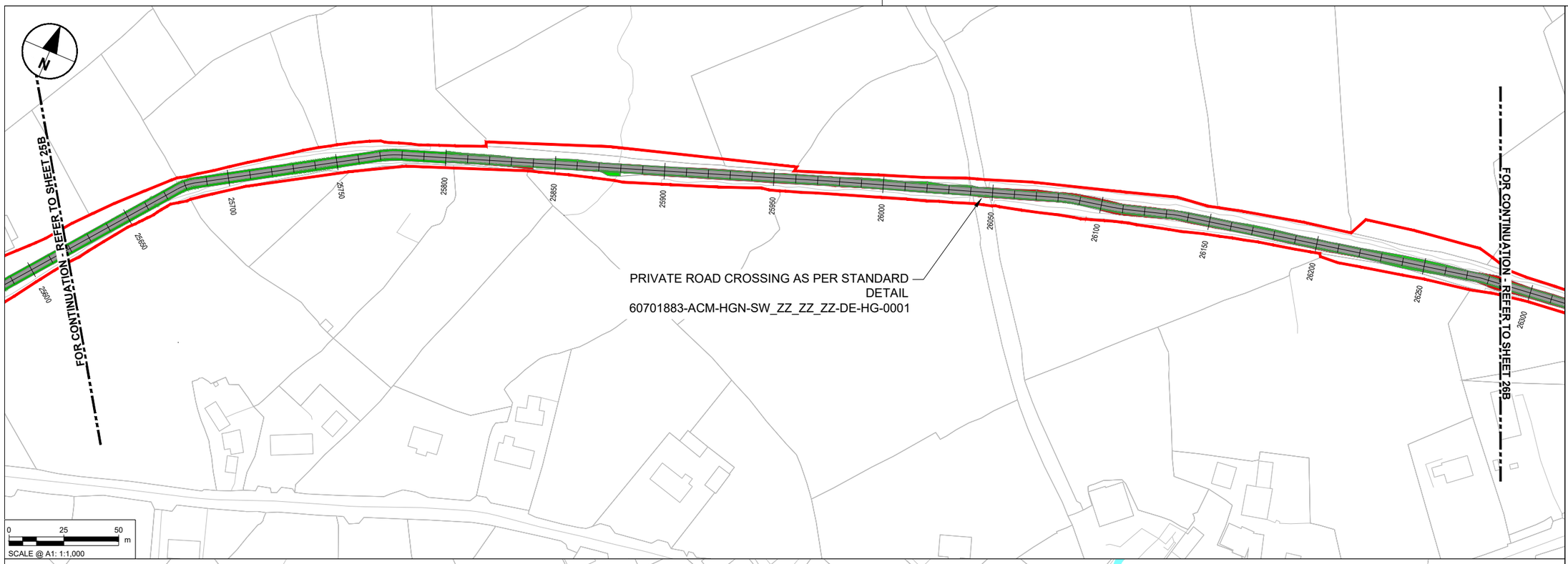
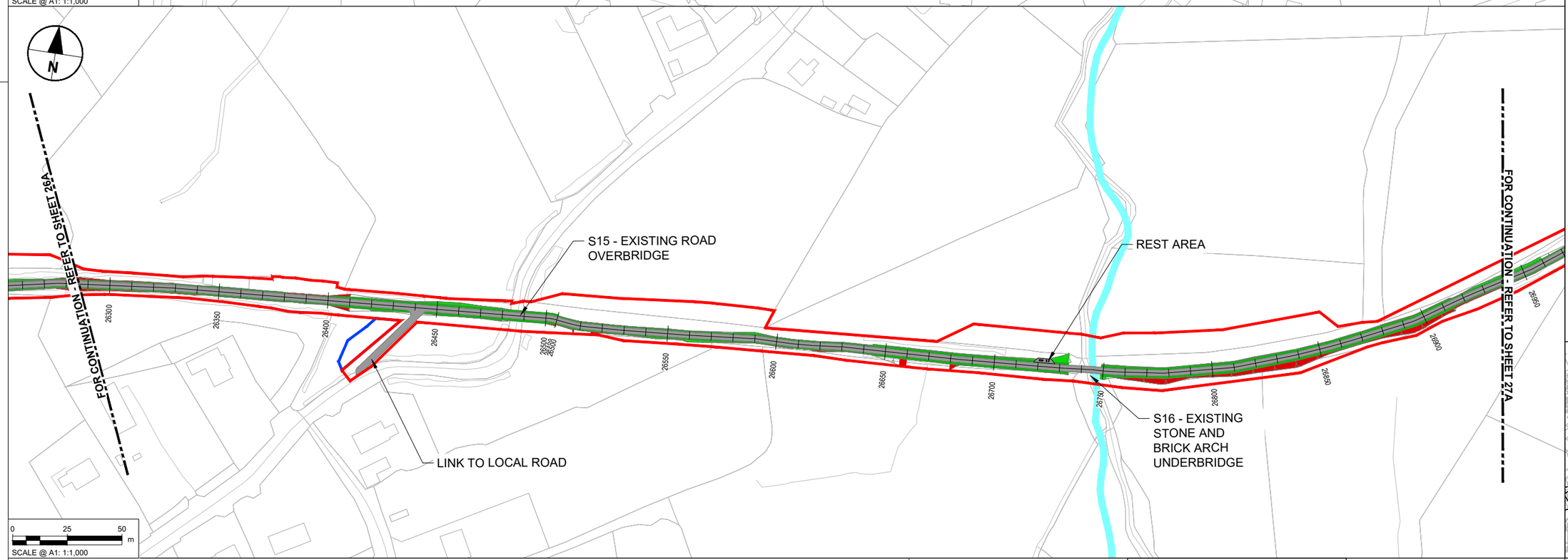
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number				Rev
Aecom Project ID	Originator	Volume		
60701883	-ACM	-HGN-		P05
SW_ZZ_ZZ_ZZ	-DR	-HG-0120		
Location	Type	Role	Number	





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KEY

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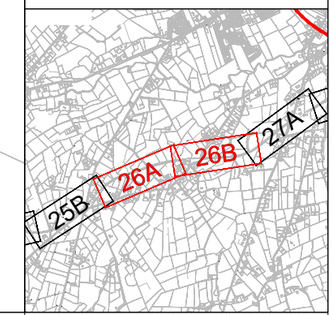
- PROPOSED GRASS VERGE
- PROPOSED EARTHWORKS - FILL
- PROPOSED EARTHWORKS - CUT
- WATERCOURSE



Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithne Náisiúnta Dhún na nGall

Greenway

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Purpose of issue

FOR INFORMATION

	By / Check	Date	Suffix
	IL / DK	22/09/25	P02
	IL / DK	14/11/25	P03
	IL / EP	20/03/26	P04
FOR ISSUE	IL / DK	15/06/26	P05
REVISION DETAILS			

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 26 OF 31

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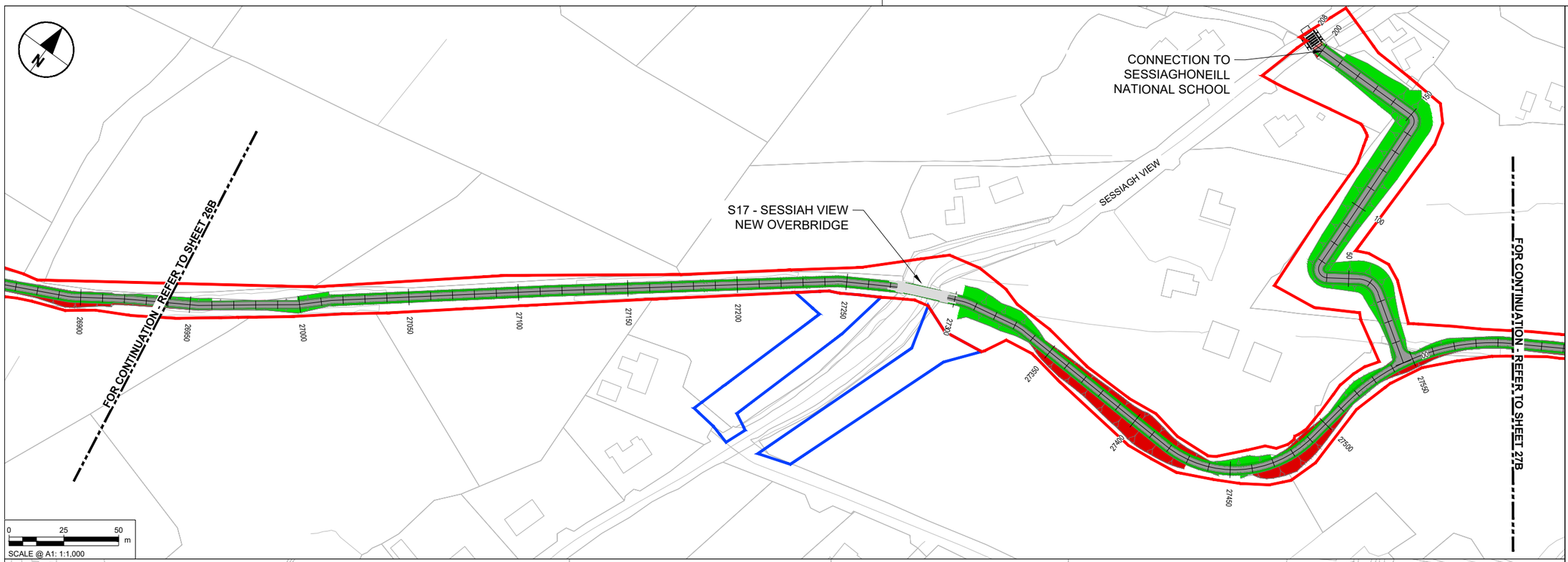
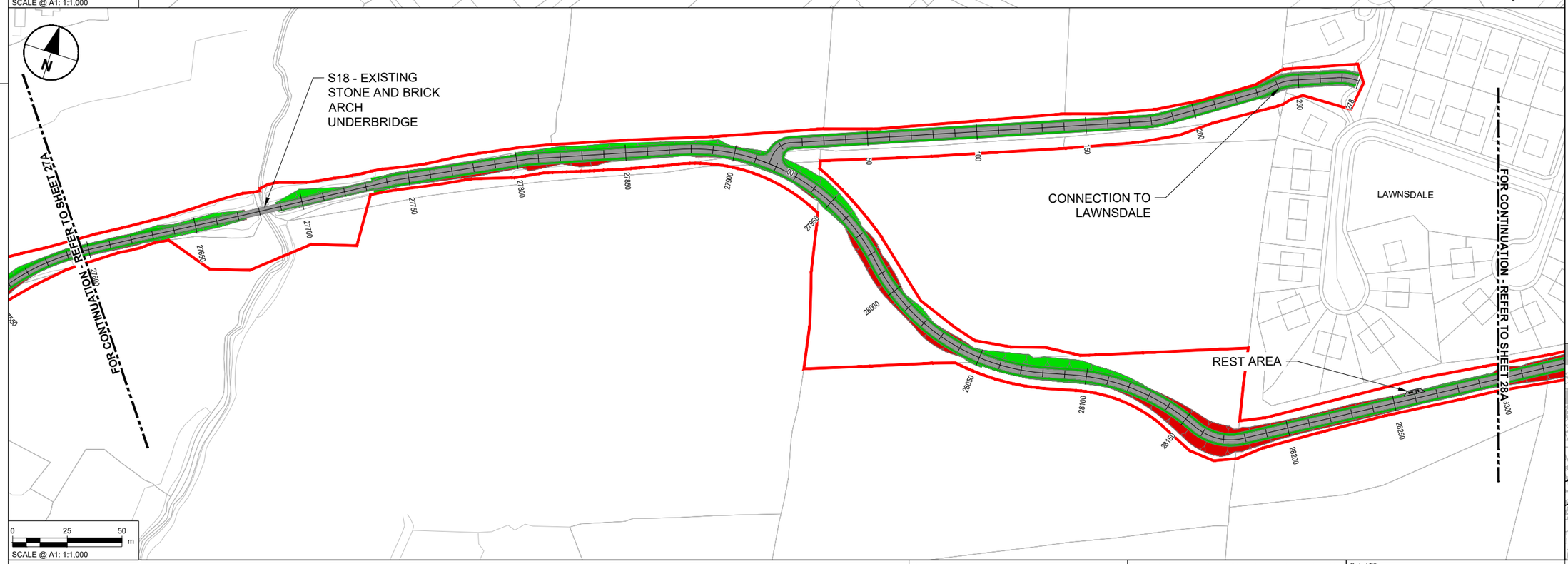
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.: 60701883
Suitability: S2
Scale @ A1: 1:1000
Volume: General

Drawing Number
Aecom Project ID: 60701883 | Originator: -ACM | Volume: -HGN- | Location: SW_ZZ_ZZ_ZZ | Type: -DR | Role: -HG | Number: -0121

Rev: P05





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KEY

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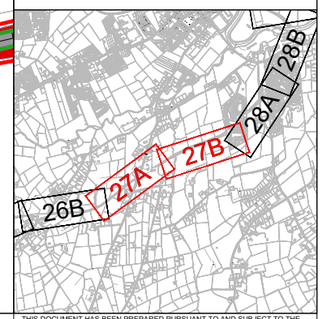
- PROPOSED GREENWAY PAVEMENT
- PROPOSED GRASS VERGE
- PROPOSED EARTHWORKS - FILL
- PROPOSED EARTHWORKS - CUT
- WATERCOURSE



Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithre Náisiúnta Dhún na nGall

Greenway

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Purpose of issue

FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS				

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 27 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No. 60701883

Suitability S2

Scale @ A1 1:1000

Volume General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
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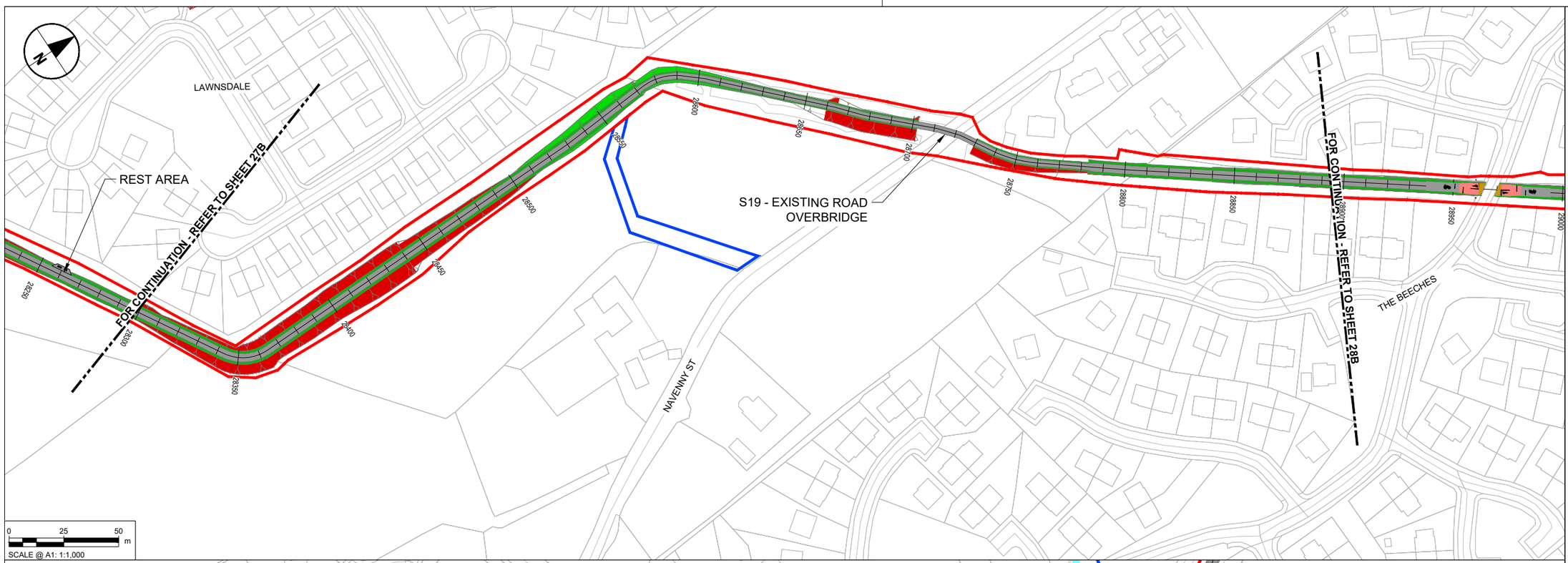

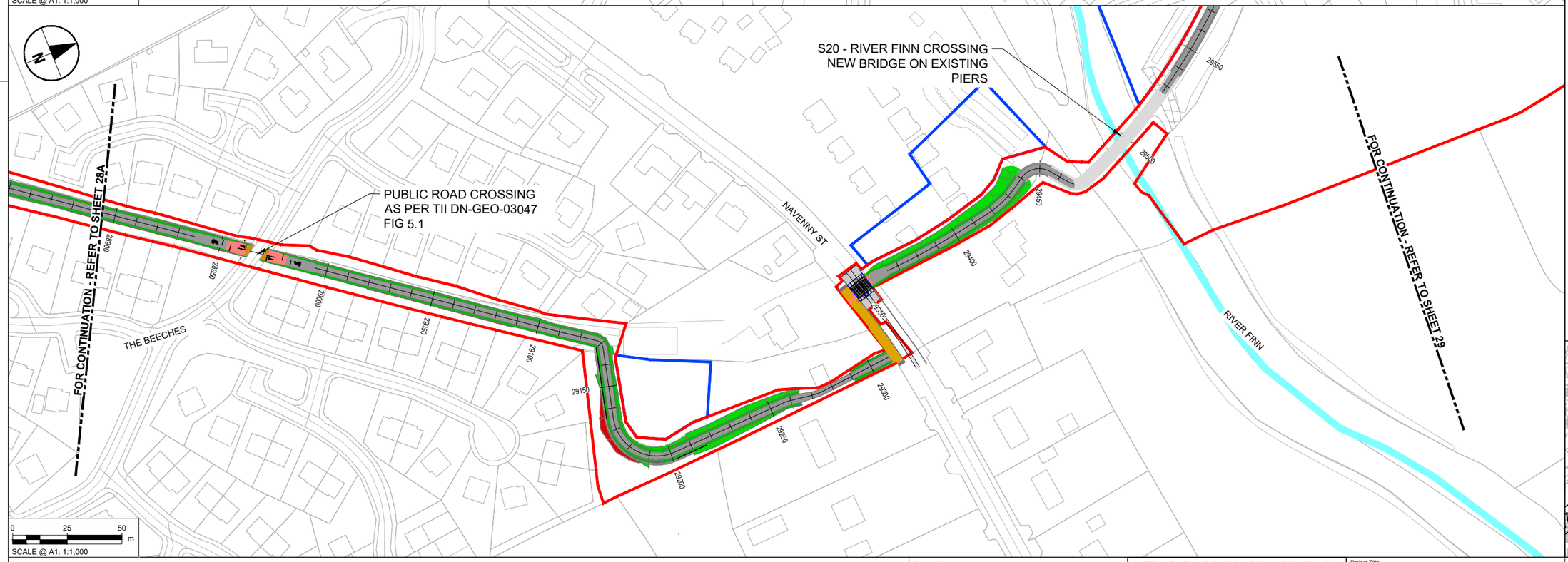

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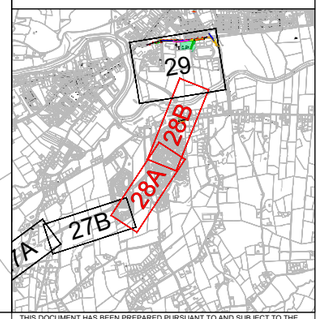

Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithne Náisiúnta Dhún na nGall

Greenway

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FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
	IL	EP	20/03/26	P04
FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS				

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 28 OF 31

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Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.: 60701883

Suitability: S2

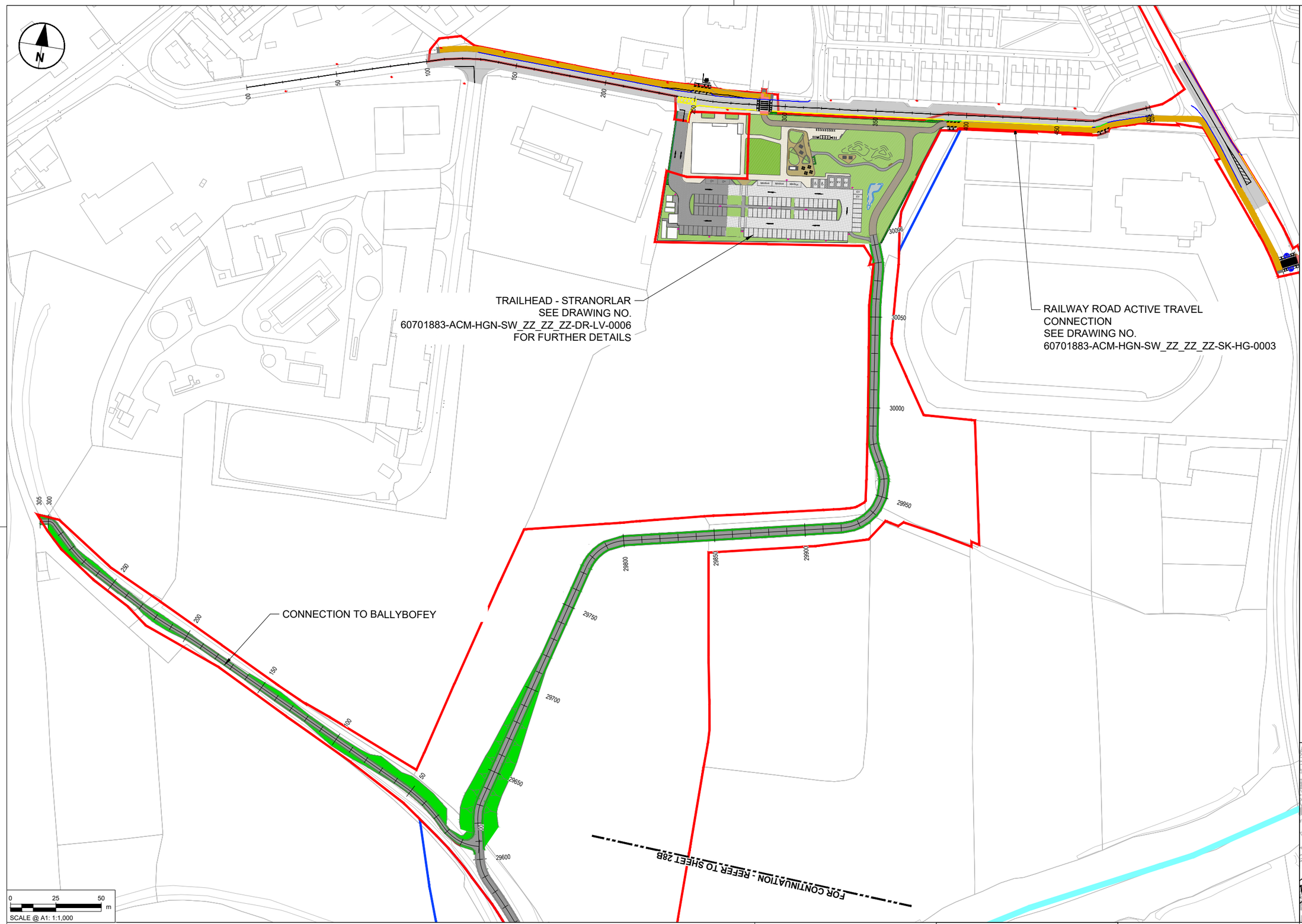
Scale @ A1: 1:1000

Volume: General

Drawing Number

Aecom Project ID: 60701883 | Originator: -ACM | Volume: -HGN- | Location: SW_ZZ_ZZ_ZZ | Type: -DR | Role: -HG | Number: -0123

Rev: P05



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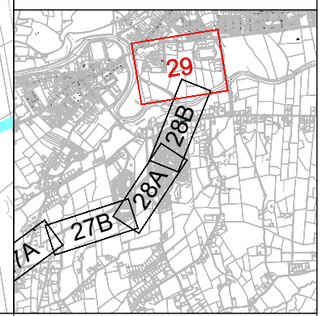
- WATERCOURSE

TRAILHEAD KEY

- GRASSCRETE
- ASHPHALT
- RESIN BOUND GRAVEL
- VERGE PLANTING
- HEDGE
- SHARED SURFACE



Tionscadal Éireann Project Ireland 2040

Bonneagar Iompair Éireann Transport Infrastructure Ireland

Comhairle Contae Dhún na nGall Donegal County Council

Donegal NRO Oifig Boithre Náisiúnta Dhún na nGall

Greenway

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FOR INFORMATION

	By	Check	Date	Suffix
	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
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FOR ISSUE	IL	DK	15/06/26	P05

REVISION DETAILS

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 29 OF 31

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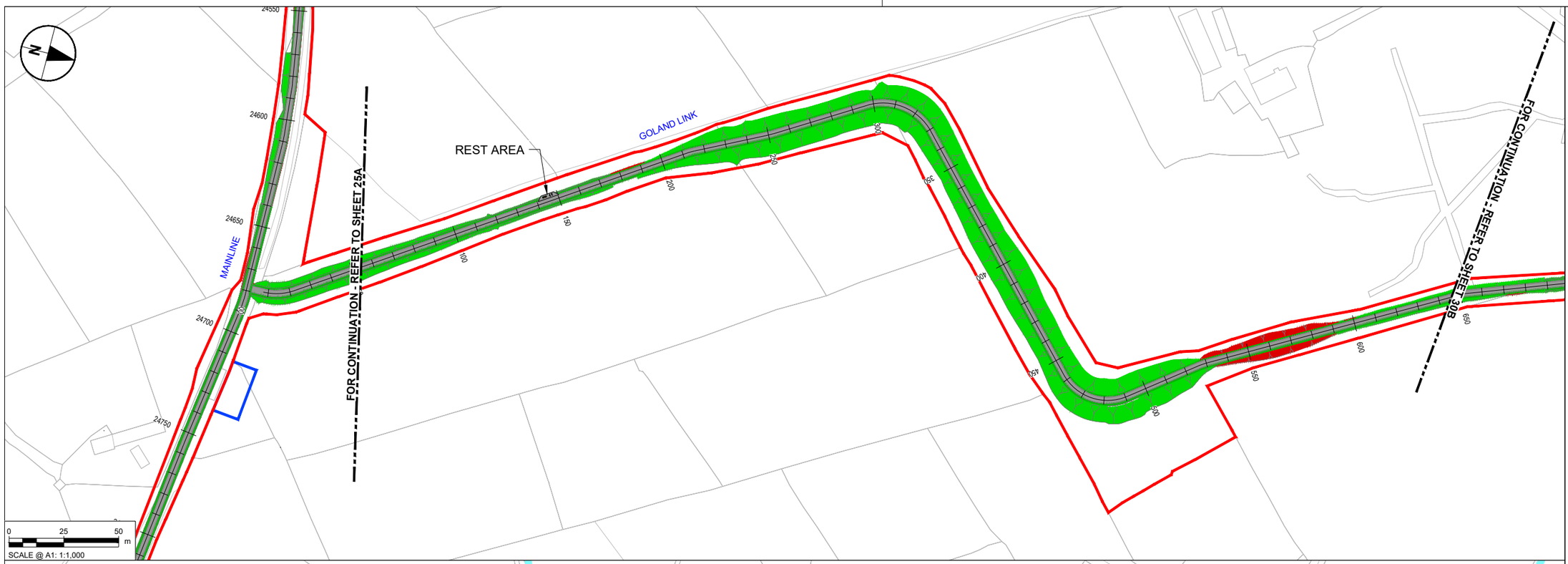
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

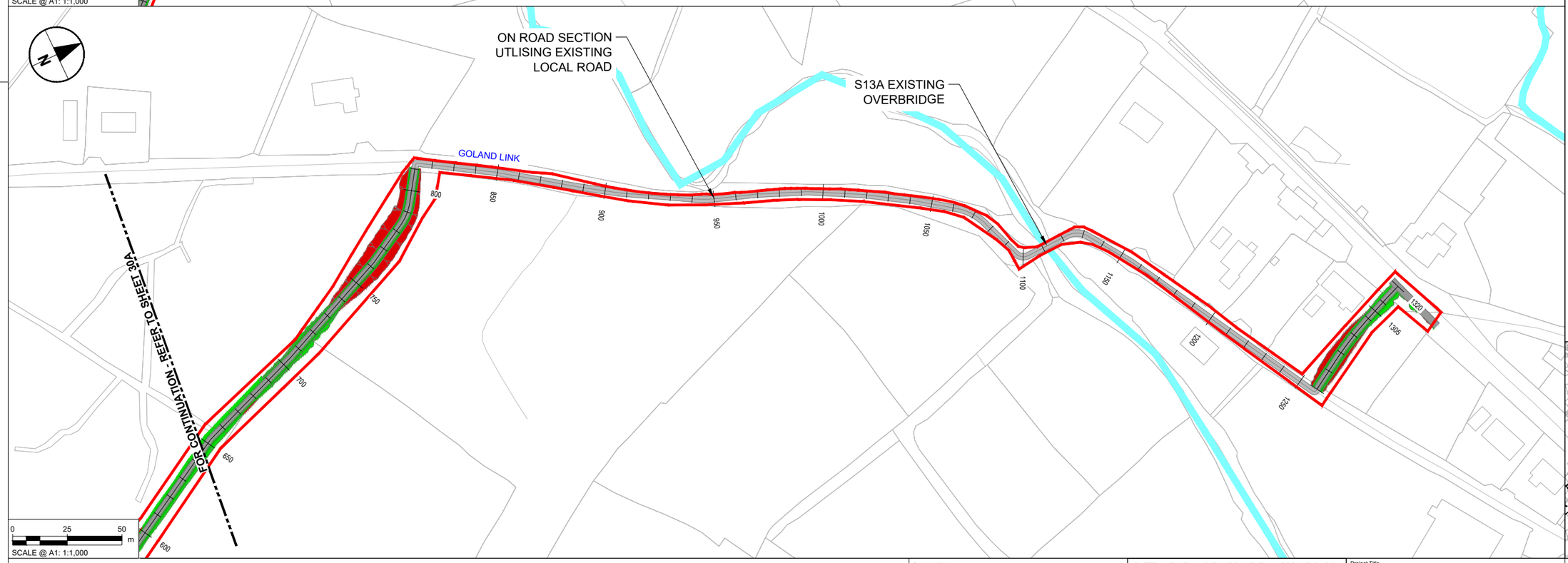
Internal Project No. 60701883 | Suitability S2

Scale @ A1 1:1000 | Volume General

Drawing Number
Aecom Project ID 60701883 | Originator -ACM | Volume -HGN- | Location SW_ZZ_ZZ_ZZ | Type -DR | Role -HG- | Number -0124

Rev P05





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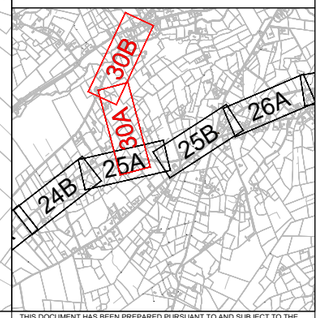

Tionscadal Éireann Project Ireland 2040

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	IL	DK	22/09/25	P02
	IL	DK	14/11/25	P03
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FOR ISSUE	IL	DK	15/06/26	P05
REVISION DETAILS	By	Check	Date	Suffix

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Project Title

Barnesmore Gap Greenway

Drawing Title

SERIES 0100
GENERAL ARRANGEMENT
SHEET 30 OF 31

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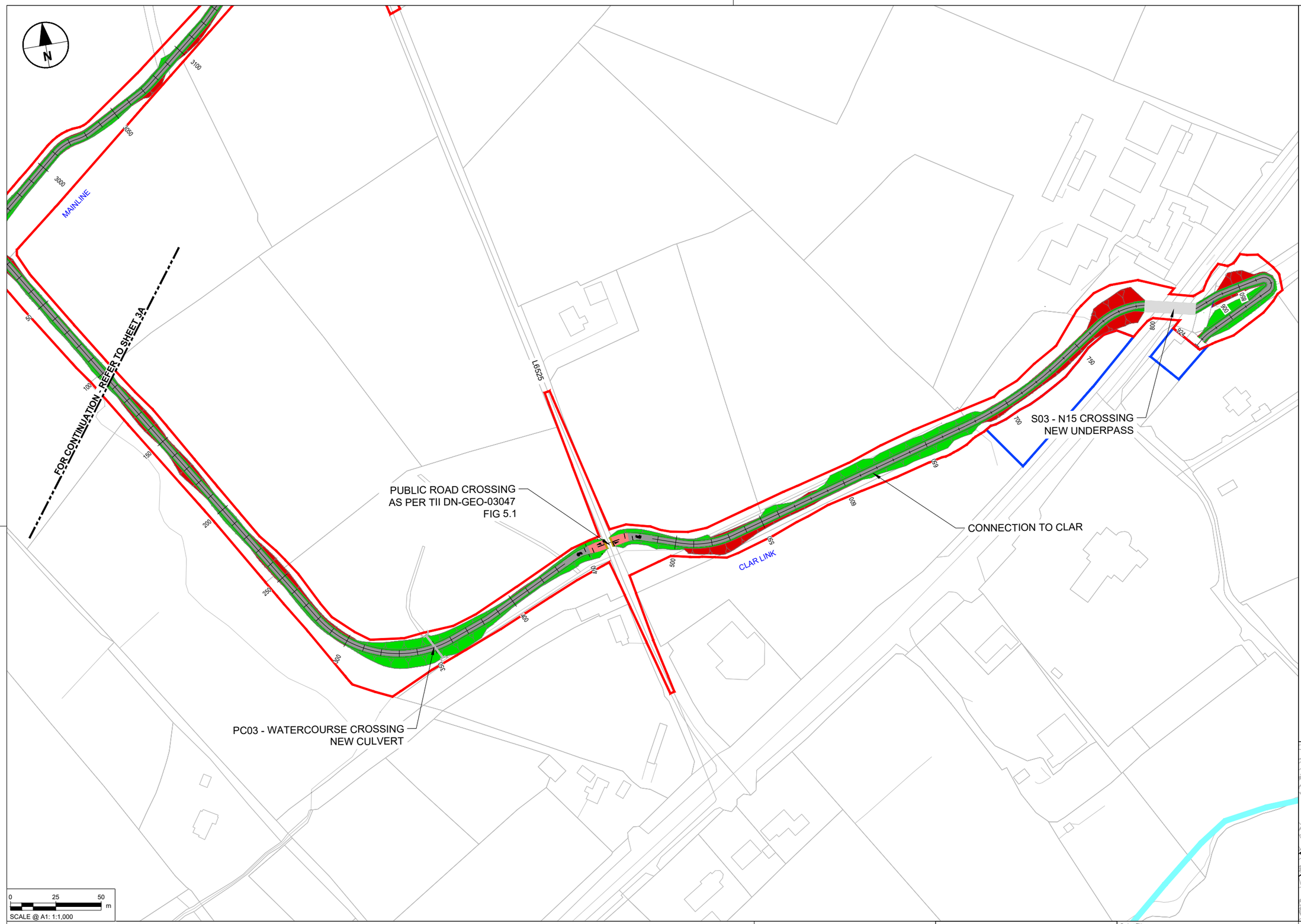
Designed	Drawn	Checked	Approved	Date
---	IL	AM	DK	15/06/26

Internal Project No.	Suitability
60701883	S2

Scale @ A1	Volume
1:1000	General

Drawing Number

Aecom Project ID	Originator	Volume	Location	Type	Role	Number	Rev
60701883	-ACM	-HGN-	SW_ZZ_ZZ_ZZ	-DR	-HG	-0125	P05



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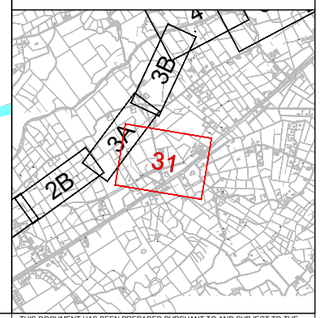
KEY

- PERMANENT LAND TAKE BOUNDARY
- TEMPORARY LAND TAKE BOUNDARY
- PROPOSED GREENWAY PAVEMENT
- PROPOSED GRASS VERGE
- PROPOSED EARTHWORKS - FILL
- PROPOSED EARTHWORKS - CUT
- WATERCOURSE



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APPENDIX C
SURVEY METHODS AND RESULTS FOR AA

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1. Desk Study Methodology

The desk study for this AA Screening Report and NIS was undertaken in October 2025. During the desk study, the statutory consultee, the National Parks & Wildlife Service (NPWS), provided data on designations of sites, habitats and species of conservation interest. This included reports pursuant to Article 17 of the Habitats Directive[1] (NPWS, 2025a, b & c) and Article 12 of the Birds Directive[2] (Eionet, 2018), as well as the Site Synopses and Conservation Objectives for the relevant European sites.

The desk study involved a thorough review of existing information relating to ecology in the vicinity of the proposed development and in the surrounding area. The following web-based geographic information systems (GISs) were used to obtain information relating to the natural environment surrounding the proposed development.

These included the NPWS *Map Viewer*, which provided information on the locations of protected sites, the National Biodiversity Data Centre's *Biodiversity Maps*, which provided recent and historic records of rare and protected species in the area as well as the Environmental Protection Agency's (EPA) *Unified GIS Application* (EPA, 2025) which provided additional information on the wider environment.

As with all desk studies, the data considered were only as good as the data supplied by the recorders and recording schemes. The recording schemes provide disclaimers in relation to the quality and quantity of the data they provide, and these were considered when examining outputs of the desk study.

A Freshwater Pearl Mussel (*Margaritifera margaritifera*) desk study was undertaken by EcoFACT, on behalf of ROD, in December 2024. The desk study was undertaken to identify existing records of Freshwater Pearl Mussel within the affected river catchments and to assess the potential for this species to occur in the watercourses that have the potential to be impacted by the proposed development. The desk study included a review of information available from the NPWS and the EPA.

[1] Under Article 17, to report to the European Commission every six years on their status and on the implementation of the measures taken under the Directive.

[2] Every three years, Member States of the European Union are required by Article 12 of the Birds Directive to report on implementation of the Directive. The most recent reporting available is for the period 2013-201.

2. Field Survey Methodologies

Ecological field surveys have been undertaken along the route of the proposed development by ROD Ecologists at various dates between October 2023 and April 2026. The surveys were carried out during the optimal survey periods in accordance with TII guidelines[3]. Timings for specific surveys are outlined in their respective sections below.

The surveys adhered to the following guidelines:

- TII (2008) *Ecological Survey Techniques for Protected Flora and Fauna during the Planning of National Road Schemes PE-ENV-01113*.
- TII (December 2006) *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes CC-ENV-01104*.
- TII (December 2005) *Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes CC-ENV-01101*.
- TII (December 2009) *Guidelines for Assessment of Ecological Impacts of National Road Schemes* PE-ENV-01112.
- TII (2020b). The Management of Invasive Alien Plant Species on National Roads – Technical Guidance. GE-ENV-01105.
- *Best Practice Guidance for Habitat Survey and Mapping* (Smith et al., 2011).
- *Margaritifera margaritifera Stage 1 and Stage 2 survey guidelines* (Anon, 2004). *Irish Wildlife Manuals 12. National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.*
- Bibby, C.J., Burgess, N.D. & Hill, D.A. 1992. Bird Census Techniques. Academic Press, London.
- Gilbert, G., Gibbons, D.W., Evans, J., (1998) *Bird Monitoring Methods: A Manual of Techniques for UK Key Species*. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.
- Hardey, J., Crick, H.Q.P., Wernham, C.V., Riley, H., Etheridge, B. & Thompson, D.B.A. (2013) *Raptors: A Field Guide for Surveys and Monitoring*. 3rd edn. Edinburgh: The Stationery Office.
- Perrin, P.M., Martin, J.R., Barron, S.J., O'Neill, F.H., McNutt, K.E. & Delaney, A.M. (2008) *National Survey of Native Woodlands 2003–2008: Volume I: Main Report*. Report submitted to the National Parks and Wildlife Service, Dublin.
- BTO (2023) *Wader Hub: Breeding Wader Survey Guidance.* British Trust for Ornithology, The Nunnery, Thetford, Norfolk, United Kingdom.
- *Physical microhabitat requirements of freshwater pearl mussel* Margaritifera margaritifera (Hastie et al., 2000).
- *Ecology of the Freshwater Pearl Mussel* (Skinner et al., 2003).

The surveys dates are presented in Table 2-1 below. The surveys with relevance to Appropriate Assessment are described in Sections 2.2- 2.6.

Table 2-1 - Survey timing

Survey	Date
Habitats	May, June, July, August 2024; November 2024; May 2025.
Invasive species	May, June, July, August 2024; November 2024; May 2025.
Otter	January, March 2025.

[3] Reference list presented

Survey	Date
Wintering Birds	October 2023 to March 2024; January to March 2025; November 2025 to March 2026.
Breeding Birds	May, June, July 2024.
Freshwater pearl mussel surveys	July 2025.
Fisheries and aquatic fauna	May, June, July, August 2024; January, February, March, July 2025.

2.1 Limitations

Standard survey methods were followed, and no difficulties were encountered during the completion of the ecological surveys. However, any biases or limitations associated with these methods could potentially affect the results collected. The data obtained from field surveys coupled with the desk study provides a robust representation of the baseline for the habitats and species within the Zone of Influence.

Private homes and gardens within the study areas were not surveyed, therefore protected species could be present in these areas. However, this is not considered significant as these areas will not be directly impacted by the proposed development.

2.2 Habitats

Habitat surveys for the proposed development were undertaken at various dates between May 2024 and May 2025. Habitats were classified in accordance with *A Guide to Habitats in Ireland* (Fossitt, 2000) and mapped following Smith et al. (2011). Due to the size of the proposed development, the study area for the habitat surveys included the proposed development plus the area up to 50m around the proposed development boundary, where accessible.

The study area was systematically and thoroughly walked, and all habitats were classified and sketched onto maps. Any Fossitt habitats with links to Annex I habitats were examined further to determine if they corresponded to Annex I habitat. The presence of Annex I habitats, or otherwise, was confirmed using the *Interpretation Manual of European Union Habitats* (EC, 2013) and the relevant NPWS guidance.

The Annex I woodland survey and 'Old Sessile Oak Woods with Ilex and Blechnum in the British Isles' structure and functions assessment criteria was undertaken in accordance with the methodology outlined in the 'National Survey of Native Woodlands 2003-2008' (Perrin et al., 2008). Reference was also made to 'Results of monitoring survey of old sessile oak woods and alluvial forests' (O'Neill & Barron, 2013). In accordance with Perrin et al., (2008), a 20m x 20m relevé was conducted.

2.3 Otter

An Otter survey for the proposed development was conducted in February and March 2025 adhering to best practice guidelines. The study area for otters included accessible areas along the route of the proposed development plus the area up to 50m around the proposed development boundary, as well as around lakes including Lough Mourne and Lough Eske and 150m upstream and downstream of all watercourses to be crossed by the proposed development. The survey involved a search for signs of otter activity (prints, spraints, trails, holts, couches, slides, feeding remains etc.).

2.4 Birds

Wintering Birds

Monthly wintering bird surveys were conducted between October 2023 – March 2024, and January – March 2025 and October 2025 – March 2026. All wintering bird species were recorded using a 'look-see' approach (Bibby et al., 1992). The surveys included all fields, bogs and waterbodies within 550m of the proposed development including the Inner Donegal Bay Estuary, Lough Eske, Lough Mourne, Lough Craig and Croaghonagh Bog and are shown in drawings at the end of this Appendix. Inland survey methodology followed Gilbert et al. (1998) and the Irish Wetland Bird Survey.

All species recorded were classified according to British Trust for Ornithology (BTO) species codes. For each observation, the date, time, site, species, number of birds, position, activity and any other notes of interest were recorded.

Breeding Birds

Breeding Raptor surveys were undertaken between May – July 2024 in accordance with Hardey et al., (2013). The surveys were undertaken at four separate Vantage Points in areas with suitable breeding raptor habitat within 550m of the proposed development. Suitable habitats that were surveyed included uplands in proximity to conifer plantations, Croaghonagh Bog and the Barnesmore Gap.

Breeding wader surveys were undertaken in conjunction with the breeding raptor surveys as described above. The surveys were undertaken in accordance with BTO's Breeding Wader Survey Guidance (BTO, 2023). Survey effort for breeding waders was focussed on areas of suitable breeding habitat, including Croaghonagh Bog and uplands south of the Barnesmore Gap.

All species recorded were classified according to British Trust for Ornithology (BTO) species codes. Evidence of breeding was also collected, noting 'possible', 'probable' and 'confirmed' breeding, in line with Bird Atlas 2007-2011.

2.5 Watercourses, Fisheries & Aquatic Fauna

Freshwater pearl mussel surveys were undertaken by AtkinsRéalis from the 14th – 16th July 2025 under licence from the NPWS. As per the licence conditions, the surveys were limited to Stage 1 and Stage 2 visual surveys using a bathyscope while wading in an upstream direction in waders or a drysuit. The survey methodology used was in accordance with *Margaritifera margaritifera* Stage 1 and Stage 2 survey guidelines (Anon., 2004). The purpose of the Stage 1 surveys was to identify the presence or absence of freshwater pearl mussel or suitable habitat for this species and the purpose of the Stage 2 survey was to estimate the adult mussel population at and in the vicinity of each of the 18 no. survey sites. Subject to safe access and presence of suitable habitat, thorough searches for mussels were undertaken in transects across the rivers at 50m intervals, from 50m upstream to 150m downstream of the crossing points.

2.6 Invasive Alien Species

The presence of invasive alien species was recorded as part of the habitat survey. The ecologists had particular regard for invasive species subject to restrictions under Regulation 49 of the Habitats Regulations, including Himalayan Balsam (*Impatiens glandulifera*), Japanese Knotweed (*Reynoutria japonica*), Bohemian Knotweed (*Reynoutria × bohemica*) and Rhododendron (*Rhododendron ponticum*). Other invasive species which can negatively impact biodiversity were also recorded. The distribution of recorded species was sketched on field maps and target notes were taken which detailed height, density, and any signs of previous management.

3. Survey Results

3.1 Habitats

Field Survey

The Fossitt habitats are presented in Table 3-1. The habitats which can correspond to Annex I habitats (denoted by an *) are described in detail below.

Table 3-1 - Habitats recorded where the proposed development overlaps with European designated sites.

Habitat Name	Habitat Code
Buildings and Artificial Surfaces	BL3
Spoil and Bare Ground	ED2
Acid Oligotrophic Lakes*	FL2
Eroding/Upland Rivers	FW1
Depositing/Lowland Rivers*	FW2
Improved Agricultural Grassland	GA1
Amenity Grassland	GA2
Wet Grassland*	GS4
Wet Heath*	HH3
(Mixed) Broadleaved Woodland	WD1
(Mixed) Broadleaved/Conifer Woodland	WD2
Conifer Plantation	WD4
Hedgerows	WL1
Treelines	WL2
Oak-Birch-Holly Woodland*	WN1
Riparian Woodland*	WN5
Scrub*	WS1

Acid oligotrophic lakes (FL2)

This habitat was recorded at Lough Eske. Lough Eske is an oligotrophic lake at the junction of Carboniferous rocks with more resistant Dalradian gneiss and granite (NPWS, 2015). Annex I lake habitat 'Oligotrophic waters containing very few minerals of sandy plains *(Littorelletalia uniflorae*)' [3110] occurs in Lough Eske (NPWS, 2019). This habitat is vulnerable to water quality impacts.

Eroding/upland rivers (FW1)

This category includes natural watercourses, or sections of these, that are actively eroding, unstable and where there is little or no deposition of fine sediment. Eroding conditions are typically associated with the upland parts of river systems where gradients are often steep, and water flow is fast and turbulent (Fossitt, 2000). This habitat was recorded at multiple locations along the proposed development, including the Clogher River and the Lowerymore River, and often flowing underneath the abandoned railway line at existing railway bridges.

Depositing/lowland rivers (FW2)

This category includes watercourses, or sections of these, where fine sediments are deposited on the riverbed. Depositing conditions are typical of lowland areas where gradients are low and water flow is slow and sluggish. These rivers vary in size but are usually larger and deeper than Eroding/upland rivers (Fossitt, 2000). This habitat was recorded as part of the River Eske in Donegal town (Figure 3-1) and the River Finn in Ballybofey/Stranorlar (Figure 3-2). During the Freshwater Pearl Mussel surveys carried out for the proposed

development, a single Eel (*Anguilla anguilla*) was recorded in the River Eske in Donegal town. Depositing/lowland rivers contain suitable habitat for fisheries and aquatic fauna. This habitat is vulnerable to water quality impacts.

Figure 3-1 - Depositing/lowland rivers (FW2) habitat at existing River Eske crossing in Donegal Town (Ch. 750)

Figure 3-2 - Depositing/lowland rivers (FW2) habitat at proposed River Finn crossing in Ballybofey/Stranorlar (Ch. 29500).

Dry-humid acid grassland (GS3)

This habitat is typically unimproved or semi-improved grassland that occurs on free-draining acid soils that may be dry or humid, but not waterlogged (Fossitt, 2000). This habitat was recorded outside Donegal town and adjacent to the Lowerymore River along the Barnesmore Gap. Species recorded include Common Spotted Orchid (*Dactylorhiza fuchsii* subsp. *fuchsia*), Sharp-flowered rush (*Juncus acutiflorus*), Heath wood-ush (*Luzula multiflora* agg.), Sweet vernal grass (*Anthoxanthum odoratum*), Creeping bent (*Agrostis stolonifera*), Blue sedge (*Carex flacca*), Star sedge (*Carex echinata*), Carnation sedge (*Carex panicea*), Meadow thistle (*Cirsium dissectum*), Meadow buttercup (*Ranunculus acris*), Creeping buttercup (*Ranunculus repens*), tormentil (*Potentilla erecta*), selfheal (*Prunella vulgaris*), Yorkshire fog (*Holcus lanatus*), Ragged robin (*Silene flos-cuculi*) and Ribwort plantain (*Plantago lanceolata*). This habitat was not recorded within the landtake boundary of the proposed development and will not be impacted by the proposed development.

Wet grassland (GS4)

This type of grassland can be found on flat or sloping ground in upland and lowland areas. It occurs on wet or waterlogged mineral or organic soils that are poorly drained or, in some cases, subjected to seasonal or periodic flooding. On sloping ground, wet grassland is mainly confined to clay-rich gleys and loams, or organic soils that are wet but not waterlogged. This category includes areas of poorly drained farmland that have not recently been improved and seasonally-flooded alluvial grasslands (Fossitt, 2000). This habitat was common along the length of the proposed development, particularly in the agricultural areas between Donegal town and the Barnesmore Gap. Wet grassland habitat typically comprised of Cock's-foot, Meadowsweet, Sorrel, Creeping buttercup, Meadow buttercup, Ribwort plantain, Crested Dog's-tail (*Cynosurus cristatus*), White clover, Marsh thistle, Spear thistle (*Cirsium vulgare*) , Tormentil, Bugle (*Ajuga reptans*), Rosebay Willowherb (*Chamaenerion angustifolium*), Field Horsetail (*Equisetum arvense*), Yorkshire Fog, Nettle, Devil's Bit Scabious, Bird's-foot trefoil (*Lotus corniculatus*). Patches of gorse and willow scrub were also recorded. One area of Wet Grassland within the proposed development boundary, to the southeast of St. Francis National School, was dominated by Devil's Bit Scabious. A survey for larval webs of Marsh Fritillary was undertaken in this grassland on the 23rd September 2025 according to best practice guidance (TII, 2009). No larval webs or evidence of Marsh Fritillary were found during the surveys carried out for the proposed development. Most examples of Wet Grassland habitat were grazed by livestock.

The majority of examples of this habitat were dominated by Soft Rush, with some examples dominated by Purple Moor-grass (*Molinia caerulea*). The Purple Moor-grass dominated Wet grassland habitat was often recorded in mosaic with Wet Heath habitat. All but one example of Purple Moor-grass-dominated habitat was recorded outside the landtake boundary. At the one location where Purple Moor-grass-dominated habitat was recorded within the landtake boundary, this was at the edge of Croaghonagh Bog SAC within the abandoned railway line (Ch. 17300) (Figure 3-3). The tussocks of Purple Moor-grass were located in stagnant water, the specimens were overgrown, dead and rank and there was no evidence of positive management or grazing. Impoverished forms of *Molinia*, such as those recorded at this location, are excluded from Annex I definition. There are no examples of Wet Grassland habitat that correspond to Annex I 'Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]' habitat and there will be no loss of Annex I 'Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] as a result of the proposed development.

Figure 3-3 - Rank, impoverished Molinia in Wet Grassland habitat along the abandoned railway corridor (Ch.17300).

Dry siliceous heath (HH1)

Dry siliceous heath can be found on flat to steeply sloping ground in upland and lowland areas. The underlying soils are relatively dry or free-draining but are acid and poor in nutrients (mainly mineral-rich or peaty podzols) (Fossitt, 2000). This habitat was recorded at one location adjacent to the proposed development, on the eastern side of the Lowerymore River at Biddy's O'Barnes (Ch. 12150). Species recorded in this habitat include Bell Heather (*Erica cinerea*), Ling Heather (*Calluna vulgaris*), Bilberry (*Vaccinium myrtillus)*, Heath Rush (*Juncus squarrosus*), Tormentil (*Potentilla erecta*), Sweet Vernal Grass (*Anthoxanthum odoratum*), Heath Bedstraw (*Galium saxatile*), Common Bent (*Agrostis capillaris*) and saplings of Rowan (*Sorbus aucuparia*) and Silver birch (*Betula pendula*). This habitat has links to Annex I 'European dry heaths [4030]' habitat. This habitat was recorded immediately adjacent to the landtake boundary of the proposed development. There is no landtake within this habitat. This habitat will not be impacted by the proposed development.

Wet heath (HH3)

Wet heath habitat is classified as vegetation with at least 25% cover of dwarf shrubs on peaty soils and shallow wet peats that typically have an average depth of 15-50 cm. Wet heath can occur in upland and lowland areas and is widespread on the lower slopes of hills and mountains that are either too dry or too steep for deep peat accumulation (Fossitt, 2000). This habitat was abundant alongside the proposed development, sometimes forming mosaics with dry siliceous heath and peatland habitats. This habitat corresponds to Annex I 'Northern Atlantic wet heaths with *Erica tetralix* [4010]'.

This habitat was most commonly recorded in the area of the Barnesmore Gap, between the Lowerymore River and the proposed development boundary. A new watercourse crossing is proposed at Ch. 12350 to facilitate connection between the proposed trailhead at Biddy's O'Barnes and the greenway. This habitat occurs where this connection is proposed, including where embankments and cutting are required. Approximately 0.24Ha of this habitat will be lost as a result of the proposed development.

A large area of this habitat was recorded between the existing N15 National Road and the proposed development to the east of Lough Mourne, where the habitat graded into Wet Grassland habitat closer to the lake. Species recorded in this habitat included Purple Moor-grass, Tormentil, Bog myrtle (*Myrica gale*), Cross-leaved Heath (*Erica tetralix*), Ling heather, Jointed Rush, Devil's bit scabious, Slender rush (*Juncus tenuis*), Sharp-flowered rush, Soft rush, Heath rush, Star sedge, Sweet vernal grass and Yorkshire fog. Where Devil's Bit Scabious was recorded, the specimens were not present in large numbers and were considered incapable of supporting suitable Marsh Fritillary breeding habitat. Wet heath was recorded within the red line boundary at this location, but not within the proposed greenway corridor. The habitat within the greenway corridor at this location is primarily made up of Wet Grassland (GS4) and Scrub (WS1) habitats, neither of which correspond to Annex I habitat.

This habitat is also sensitive to drainage impacts, given its water-dependent nature. However, there is considered to be no potential for drainage-related impacts to this habitat for the following reasons: the bedrock geology at the location of this habitat consists of Feldspathic Psammite, Quartzite and Marble, and is characterised as a poor aquifer. This bedrock geology has low permeability. The superficial deposits consist of Blanket Peat. This subsoil type, because of its low permeability, will not allow water to permeate easily through the soil during the construction works.

The proposed development will lead to the loss of 0.24ha of this habitat on the east bank of the Lowerymore River close to Biddy's O'Barnes.

Upland blanket bog (PB2)

Upland blanket bog occurs on flat or gently sloping ground above 150m and is widespread on hills and mountains throughout Ireland. The 150m limit serves to distinguish upland from lowland blanket bog but is loosely applied. Peat depths vary and normally fall in the range of 1-2 m, but can be much deeper in pockets (Fossitt, 2000). This habitat was common along the proposed development between the Barnesmore Gap and Lough Mourne, notably at Croaghonagh Bog. Along the Barnesmore Gap, this habitat was dominated by Ling heather, Cross-leaved heath, Bog cotton (*Eriophorum angustifolium*), Tormentil, Soft rush, *Sphagnum* species and Deergrass (*Trichophorum germanicum*). Other species recorded include Reindeer lichen (Cladonia *rangiferina*), Heath Milkwort (*Polygala serpyllifolia*), Lousewort (*Pedicularis sylvatica*), Butterwort (*Pinguicula vulgaris*), Bog Asphodel (*Narthecium ossifragum*), Round-leaved sundew (*Drosera rotundifolia*), Bog bean (*Menyanthes trifoliata*), Purple Moor-grass, Hard fern (*Blechnum spicant*), Sharp-flowered rush, Bog Myrtle, Wild Angelica and Lesser Spearwort (*Ranunculus flammula*). At Croaghonagh Bog, this habitat was dominated by *Sphagnum* species, Ling heather, willow shrubs and saplings and bog cotton. Along the proposed development close to the N15, the habitat is lined with willow trees and gorse scrub. This habitat corresponds to Annex I 'Blanket bog (*if active bog) 7130]'.

While this habitat occurs within the proposed development boundary between Barnesmore Gap and Lough Mourne, the abandoned railway line itself is made ground which has been recolonised and is no longer peat-forming blanket bog habitat. There is no Annex I 'blanket bogs (*if active bog) [7130]' habitat that will be impacted by the proposed development, including where upland blanket bog (PB2) is located within the proposed development boundary. The habitat will be retained as existing in these locations. Considering this as well as the underlying geological conditions, as described above, there is no potential for impacts to this habitat as a result of the proposed development.

Riparian woodland (WN5)

This category includes wet woodlands of river margins (gallery woodland) and low islands that are subject to frequent flooding, or where water levels fluctuate as a result of tidal movement (in the lower reaches of rivers). Riparian woodland is dominated by stands of willows that may include native (*Salix cinerea, S. purpurea, S. triandra*) and nonnative (*Salix fragilis*, *S. alba, S. viminalis*) species. These woodlands often reveal an accumulation of river borne debris, including dead vegetation and plastic, when water levels are low. A fine coating of grey mud on vegetation and tree bases that are regularly submerged and emersed is also characteristic (Fossitt, 2000).

This habitat was recorded on the margins of watercourses at some localised areas near the proposed development, including adjacent to the River Eske and the Drumroosk_East

watercourse outside Donegal Town and the River Eske west of the proposed River Eske crossing, although no works are proposed in this habitat at these locations. This habitat interacts with the proposed development at the River Finn south of the proposed River Finn crossing and an unnamed watercourse southwest of Ballybofey only.

Where this habitat interacts with the proposed development at the River Finn, the habitat was dominated by Willow species with extensive Himalayan balsam present. Tree cover was low, with the habitat dominated by shrubs. Therefore, Riparian Woodland at this location was not considered to correspond to Annex I 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)' [91E0] habitat.

There will be no loss of Annex I 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0].

Wet willow-alder-ash woodland (WN6)

This broad category includes woodlands of permanently waterlogged sites that are dominated by Willows, Alder or Ash, or by various combinations of some or all of these trees (Fossitt, 2000). Most examples of this habitat were recorded along the Lowerymore River outside the proposed development boundary. However, this habitat was also recorded within the proposed development boundary, including outside Donegal town to the south of the N56 and at two small areas adjacent to the Keadew Lower L2595 local road.

Where these two areas of habitat occur along the Keadew Lower local road, the first habitat was adjacent to an unnamed lake. The woodland habitat in this area was dominated by Willow species, with no other tree species recorded. Flora around the margin of the lake included Common Reed (*Phragmites australis*) and Marsh Marigold (*Caltha palustris*). The vegetation in the terrestrial bounds of the woodland was dominated by Soft Rush, with many examples of Marsh Marigold present. March cinquefoil (*Comarum palustre*), Meadowsweet, Common Dog-violet (*Viola riviniana*), Ferns and Mosses were also recorded, albeit to a lesser extent. The second area of this habitat was located approximately 303m northeast of the first immediately adjacent to the Keadew Lower L2595 local road. The second area of this habitat was comprised of Willow species, including Grey Willow (*Salix cinerea*) and was located within a permanently wet ditch. A key component of Alluvial woodland, based on descriptions provided in *Interpretation Manual of European Union Habitats* (EC, 2013), *The monitoring and assessment of four EU Habitats Directive Annex I woodland habitats* (Daly, et al., 2023) and the Joint Nature Conservation Committee (JNCC, 2019), is that Alluvial woodland habitat is influenced by hydrological dynamics, including periodic inundation or fluctuating water levels, which typically occur on floodplains or soils that are periodically flooded but aerated between floods.

These areas of wet woodland are not vulnerable to flooding, per Flood Maps (OPW, 2018). Given the habitat at these locations are not influenced by hydrological dynamics and are constantly wet by nature, the fact that the water level in the lake at the first area is stable, as well as the lack of tree species diversity and that Soft rush is one of the dominant species of ground flora, these areas are not considered to correspond to Annex I 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]' and are classified as non-Annex Wet willow-alder-ash woodland (WN6) per Fossitt (2000).

While no Annex I 'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]' will be lost as a result of the proposed development.

Scrub (WS1)

Scrub habitat is a broad category includes areas that are dominated by at least 50% cover of shrubs, stunted trees or brambles. The canopy height is generally less than 5m, or 4m in the case of wetland areas. Scrub frequently develops as a precursor to woodland and is often found in inaccessible locations, or on abandoned or marginal farmland (Fossitt, 2000). This habitat was common along the length of the proposed development, often dominated by Bramble, Gorse, Willow. Other species recorded in this habitat include Hawthorn, Rowan and Hazel, as well as Winter heliotrope and Nettle. Some instances of this habitat was dominated by Japanese knotweed or Rhododendron. Scrub habitat can correspond to the Annex I habitat *Juniperus communis formations on heaths or calcareous grasslands* [5130]. No juniper was recorded in the scrub habitat and therefore there will be no loss of this Annex I habitat.

Oak-ash-hazel woodland (WN2)

Native, semi-natural woodland that occurs on base-rich or calcareous soils that are generally dry or well-drained, or on rocky limestone terrain. This type of woodland is typically dominated by Pedunculate Oak, Ash or Hazel, or by various mixtures of some or all of these trees. Other trees may be present but should not be abundant (Fossitt, 2000). This habitat was recorded in small areas outside the abandoned railway line boundary in the agricultural areas south of Ballybofey/Stranorlar. Hazel was typically the dominant species with others including Ash, Rowan, Holly and Oak. Ground flora included Wood sorrel, Hard fern, Bluebell (*Hyacinthoides non-scripta*), *Polytrichum*, Greater wood-rush (*Luzula sylvatica*), Bramble, Ivy, Wood avens (*Geum urbanum*), False brome (*Brachypodium sylvaticum*) and Ramsons (*Allium ursinum*). Although this habitat overlaps with the proposed development boundary in a woodland to the south of the Lowerymore River crossing, there are no works proposed here and therefore, there will be no loss of this habitat as a result of the proposed development.

Oak-birch-holly woodland (WN1)

This habitat incudes native, semi-natural broadleaved woodland that occurs on acid or base-poor soils that may be either dry or humid, but not waterlogged. Stands are usually dominated by Sessile Oak (*Quercus petraea*), or mixed stands of Sessile and Pedunculate Oak (*Q. petraea* and *Q. robur*) or their hybrids (*Q.* x *rosacea*). This habitat was recorded at various locations along the proposed development, including close to the proposed River Eske crossing, as well as in the Lougheask Demesne woodland to the south of the existing local road.

The Lough Eske and Ardnamona Wood SAC occurs within the proposed development footprint. The habitat surveys undertaken for the proposed development classified some areas of 'Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles' along the River Eske, however these areas are outside the work areas. There will be no removal of this Annex I habitat at any location for the purposes of the proposed development boundary.

The habitat on the southern side of the proposed River Eske crossing is classified as a treeline, rather than a woodland, due to the sparse and narrow nature of the trees (<4m wide), based on the criteria set out in Fossitt (2000) (Figure 3-4). Tree species recorded in this treeline include Hybrid Oak (*Quercus* x *rosacea*), Silver birch, Hazel and Alder.

Figure 3-4 - Treeline (WL2) habitat in middle ground between River Eske in background and Wet Grassland in foreground.

The proposed development extends north through the woodland of Lougheask Demesne on the south side of the L1945 local road. Habitat surveys were undertaken within this woodland where it interacts with the proposed development. The area of woodland that was surveyed in accordance with Fossitt (2000) contained a mix of several types, namely Oak-birch-holly woodland (WN1), (Mixed) broadleaved woodland (WD1) and Mixed broadleaved/conifer woodland (WD2). As Oak-birch-holly (WN1) has an affiliation with the Annex I woodland 'Old Sessile Oak Woods with *Ilex* and *Blechnum* in the British Isles' [91A0], further surveys to determine whether or not WN1 corresponds to this Annex I habitat were undertaken.

The Annex I woodland survey and 'Old Sessile Oak Woods with *Ilex* and *Blechnum* in the British Isles' structure and functions assessment criteria was undertaken in accordance with the methodology outlined in the '*National Survey of Native Woodlands 2003-2008'* (Perrin et al., 2008). Reference was also made to '*Results of monitoring survey of old sessile oak woods and alluvial* forests' (O'Neill & Barron, 2013). In accordance with Perrin et al., (2008), a 20m x 20m relevé was conducted.

The criteria for Annex I Old Oak Woodlands passes on the presence of ≥6 positive indicator species but fails on two of the thresholds, namely the presence of negative indicator species (i.e. *Fagus sylvatica* and *Acer pseudoplatanus*) and that the habitat only reaches 4/5 of the structural data requirements. All five of the structural data requirements must be met to pass the structural data threshold.

The structural data thresholds fails on the basis that neither Sessile Oak (*Q. petraea*), nor Oak Hybrid (*Q.* x *rosacea*) contribute to >50% of the canopy. Although Pedunculate Oak (*Q. robur*) was recorded within the relevé (Figure 3-5), neither *Q. petraea* nor *Q.* x *rosacea* were present, which are structural requirements for 'Old Sessile Oak Woods with *Ilex* and *Blechnum* in the British Isles' based on Perrin et al., 2008. As this area of woodland did not pass the criteria for target tree species, the area of Oak-Birch-Holly (WN1) woodland in this area does not correspond to Old Sessile Oak Woods with *Ilex* and *Blechnum* in the British Isles. Other negative indicator species, such as non-native conifer species and *Rhododendron ponticum*, were recorded in the woodland, although these were beyond the relevé extents.

Beech, Hazel, Holly, Birch, Alder and Pedunculate Oak were the tree species recorded within the relevé. Ground flora included Enchanters nightshade, Wood sorrel, Honeysuckle (*Lonicera periclymenum*), Remote sedge (*Carex remota*), Herb Robert, Ivy, Germander speedwell (*Veronica chamaedrys*), Bramble, Violets (*Viola* sp.), Brome species, Hard fern and Meadowsweet (*Filipendula ulmaria*) (Figure 3-6).

Figure 3-5 - Pedunculate oak (Quercus robur) recorded in the woodland at Lougheask Demesne (Ch. Lough Eske Loop West 400).

Figure 3-6 - Area of Oak-Birch-Holly woodland (WN1) at Lougheask Demesne (Fossitt, 2000). This area did not correspond to Annex I 'Old sessile oak woods with Ilex and Blechnum in the British Isles' (Ch. Lough Eske Loop West 400).

While no Annex I 'Old sessile oak woods with Ilex and Blechnum in the British Isles' [91A0] will be lost as a result of the proposed development, non-Annex Oak-birch-holly woodland is vulnerable to habitat loss.

Old Oak Woodlands 91A0

Project No.: 22.169	**Project Name:** Barnesmore Gap Greenway
Date: 22/05/2025	**Recorder:** SS
Grid Ref.: 54.6818768, -8.0620420	**Relevé no.(s):** 1
Fossitt: Oak-birch-holly woodland (WN1)	

Relevé Assessment: This woodland comprises a mix of several types, including WN1, WD1 and WD2. The WN1 comprises the smallest area and this relevé was undertaken within this area.

The WN1 section does not correspond to Annex 1 Woodland as it does not contain any sessile oak (or *Q. rosacea*), which is a requirement for Old sessile oak woodlands. Other than this it did contain quite a few positive indicator species (pass) but would fail on the structural woodland components due to lack of target oak species.

Domin scale	
1=<3 few	6=26-34%
2= < 3 some	7=35-50%
3=<3 many	8=51-75%
4= 4-10%	9=76-90%
5=11-25%	10=>90%

Indicator species and criteria to be scored at each 20 m x 20m assessment stop.

Species	Species Cover (%)
Wood sorrel (*Oxalis acetosella*)	9

Species	Species Cover (%)
Honeysuckle (*Lonicera periclymenum)*	9
Herb-Robert (*Geranium robertianum*)	6
Enchanters' nightshade (*Circaea lutetiana*)	6
Sycamore (*Acer pseudoplatanus*)	3
Pedunculate oak (*Quercus robur*)	2
Hazel (*Corylus avellana*)	5
Bramble (*Rubus fructicosus*)	1
Holly (*Ilex aquifolium*)	6
Hard fern (*Blechnum spicant*)	1
Hay-scented buckler-fern (*Dryopteris aemula*)	2
Scaly male fern (*Dryopteris affinis*)	1
Sanicle (*Sanicula europaea*)	1
Germander speedwell (*Veronica chamaedrys*)	2
Early dog- violet (*Viola reichenbachiana*)	2
Alder (*Alnus glutinosa*)	6
Wood sedge (*Carex sylvatica*)	3
Sweet vernal grass (*Anthoxanthum odoratum*)	3
Remote sedge (*Carex remota*)	5
Hairy brome (*Bromopsis ramose*)	2
Downy birch (*Betula pubescens*)	4
Wood avens (*Geum urbanum*)	2
Guelder-rose (*Viburnum opulus*)	1
Ash (*Fraxinus excelsior*)	2
Beech (*Fagus sylvatica*)	3

Structural Data	Pass / Fail
Median canopy height >11m	Pass
Total canopy cover >30% of plot	Pass
Q. petraea or *Q. x rosacea* >50% of canopy	Fail
Total shrub layer cover 10-50%	Pass
Field layer ≥ 20% cover and ≥20 cm high	Pass
Evidence of bark stripping (present = fail)	Pass
% bryophyte cover (pass = ≥4%)	Pass
Pass = *Quercus petraea* or *Q. x rosacea* plus ≥6 of the other listed species present	Fail (lack of *Q. petraea*)

Definitions Of [91a0] Old Oak Woodlands

1) Acidophilous *Quercus petraea* woods, with low-branched, trees, with many ferns, mosses, lichens and evergreen bushes. Sub-types: 41.531 - Irish sessile oak woods *Quercus petraea* woods of Ireland, particulary rich in evergreen bushes, including *Arbutus unedo*. 41.532 - British sessile oak woods Acidophilous *Quercus petraea* woods of western Britain, mostly found in Scotland, Wales, Northern England and South Western England.

2) Plants: *Quercus petraea*, *Ilex aquifolium*, *Blechnum* ssp.

The list below is based on Perrin et al. (2008), O'Neil and Barron (2013) and NPWS article 17 reports (2019)

Positive Indicator Species				Negative Indicator Species	
Trees and Woody Species	**Present / Absent**	**Mosses and Liverworts**	**Present / Absent**	**Non-Native Tree Species**	**Present / Absent**
Betula pubescens Downy Birch	✓	*Dicranum scoparium / D.majus*	X	*Acer pseudoplatanus* Sycamore	✓
Corylus avellana Hazel	✓	*Eurhynchium striatum*	X	*Fagus sylvatica* Beech	✓
Ilex aquifolium Holly	✓	*Thuidium tamariscinum*	X	Non-native conifer species	X
Lonicera periclymenum Honeysuckle	✓	*Hylocomium brevirostre*	X	Non-native shrub species	
Quercus petraea or Quercus x rosacea Sessile oak	X	*Hypnum cupressiforme*	X	*Cotoneaster* spp.	X
Sorbus aucuparia Rowan	✓	*Hypnum jutlandicum*	X	*Prunus laurocerasus* Cherry Laurel	X
Vaccinium myrtillus Bilberry	X	*Isothecium myosuroides*	X	*Rhododendron ponticum* Rhodo	X
Quercus robur Pedunculate Oak	✓	*Mnium hornum*	X	*Symphoricarpos albus* Snowberry	X
Herbs and ferns		*Plagiothecium undulatum*	X		
Blechnum spicant Deer fern	✓	*Polytrichastrum formosum*	X		
Luzula sylvatica Great wood rush	X	*Pseudotaxiphyllum elegans)*	X		
Oxalis acetosella Wood-sorrel	✓	*Rhytidiadelphus loreus*	X		
Polypodium vulgare Common Polypody	X	*Scapania gracilis*	X		

Positive Indicator Species				Negative Indicator Species	
Trees and Woody Species	**Present / Absent**	**Mosses and Liverworts**	**Present / Absent**	**Non-Native Tree Species**	**Present / Absent**
Hyacinthoides nonscripta Bluebell	X	*Calypogeia muellerana*	X		
		Diplophyllum albicans	X		
		Saccogyna viticulosa	X		

N.B. These criteria are to be used for conservation status assessment of 91A0 woodlands. They are not to be used to determine Annex I status. The Annex I habitat 91A0, as it occurs in the Irish context, is defined in Section 2.1.

Table 4 Assessment criteria at the individual-plot level for 91A0 woodlands.

	Assessment criterion	91A0 target for pass
1	Positive indicator species	At least 1 target species
		≥6 positive species, of which at least 2 must be bryophytes
2	Negative species cover	≤10% cover of plot
3	Negative species regeneration	Absent
4	Median canopy height	≥11 m
5	Total canopy cover	≥30% of plot
6	Proportion of target species in canopy	≥50% of canopy
7	Native shrub layer cover	10 – 75% of plot
8	Native dwarf shrub/field layer	≥20% of plot, height ≥20 cm
9	Bryophyte cover	≥4%
10	Grazing pressure	All 4 indicators absent

Table 5 Assessment criteria at the four-plot level for 91A0 woodlands.

	Criterion	Target for pass
1	Target species size class distribution	At least 1 of each size class present over all 4 plots
2	Target species regeneration	At least 1 sapling ≥2 m tall over all 4 plots
3	Other native tree regeneration	At least 1 sapling ≥2 m tall in 2 or more plots
4	Old trees and dead wood	At least 3 from any category (DBH ≥20 cm)

3.2 Otter

Desk Study

Otter (*Lutra lutra*) are found throughout Ireland in a wide variety of freshwater and coastal habitats, both in urban and rural environments. The species has two basic requirements: aquatic prey and safe refuges where they can rest. Otter maintain territories and can have a home range of up to 35km (NIEA, 2011; NPWS, 2009). They also may travel several hundred meters outside of these territories to exploit novel prey opportunities (such as nearby ponds and marshes). In general, however, this species will exploit a narrow strip of habitat at the aquatic – terrestrial interface (NPWS, 2009).

Otter are listed under Annex II and Annex IV of the EU Habitats Directive and are also protected under the Irish Wildlife Acts. As per the NPWS Article 17 Reporting, the range, population, habitat and future prospects for this species in Ireland have been assessed as favourable (NPWS, 2025g).

There are numerous records of Otter in the study area, according to data supplied by the NPWS (2025a) and NBDC (2025).

Field Survey

Evidence of otter was recorded during the surveys, including spraints in several locations between Donegal town and Ballybofey/Stranorlar. No holts or couches were recorded within 150m of the proposed development although considering the size of the watercourses connected to the proposed development and the known otter activity in the area, otter are considered to be present in the vicinity.

3.3 Birds

Desk Study

Irish Wetland Bird Survey (I-WeBS) data for the Donegal Bay [0A405], Lough Foyle [0A408] and the River Foyle [0A301] sites were reviewed as part of the desk study.

A search of the NBDC's online biodiversity database (NBDC, 2025) returned records for numerous Annex I and Qualifying Interest bird species in the vicinity of the proposed development [NBDC 2x2km Grid Squares: G97J, G97P, G98K, G98Q, G98R, G98V, G98W, H08B, H08C, H08H, H08I, H08N, H08P, H08U, H08Q, H09V, H19A, H19B, H19G, H19L, H19M].

Field Survey

Wintering Raptors

Wintering raptor surveys were conducted over two nights per month at two Vantage Points at Croaghonagh Bog between January – March 2024. No wintering raptors were recorded during any of the six evening roost surveys.

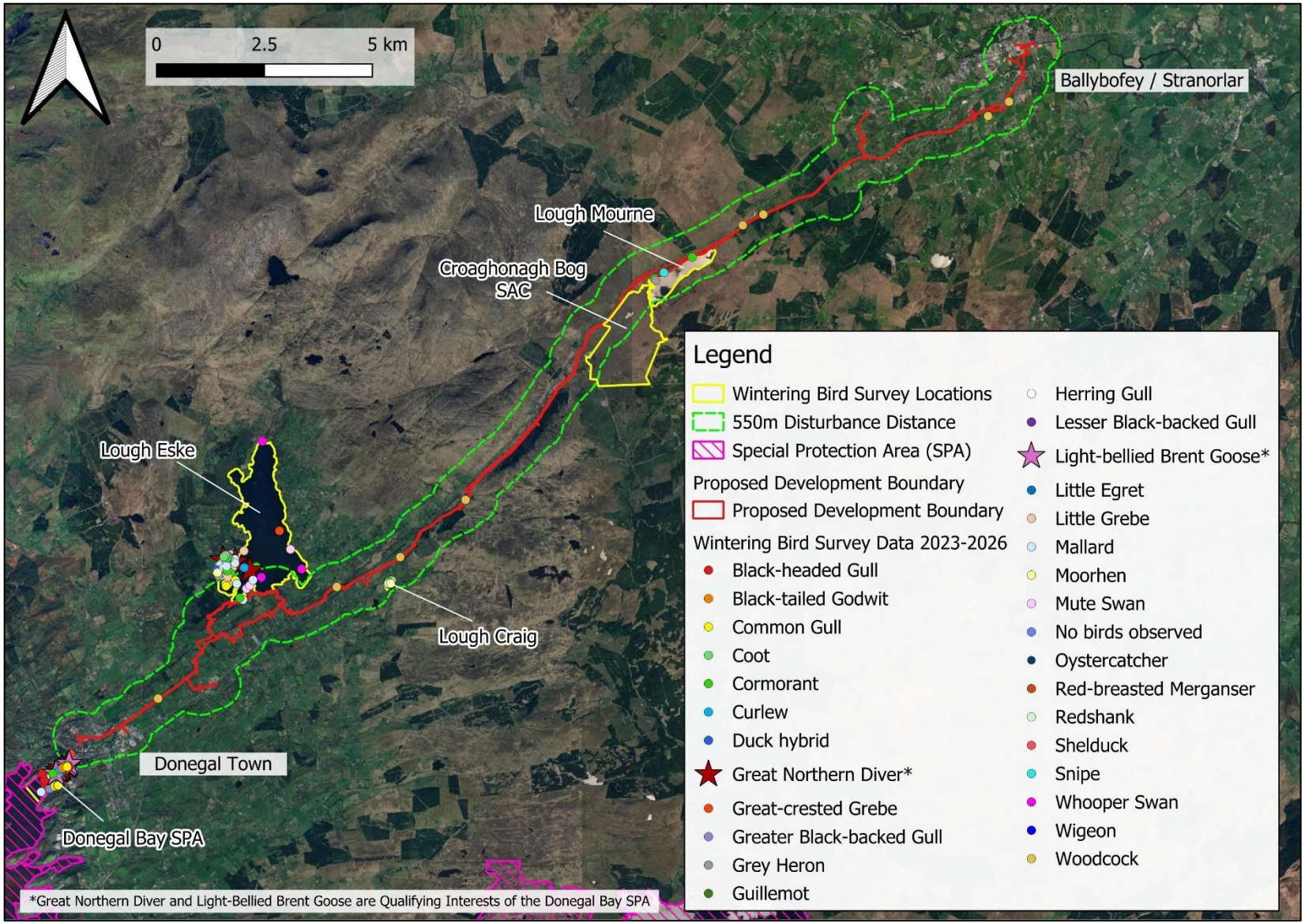
Wintering Waterbirds

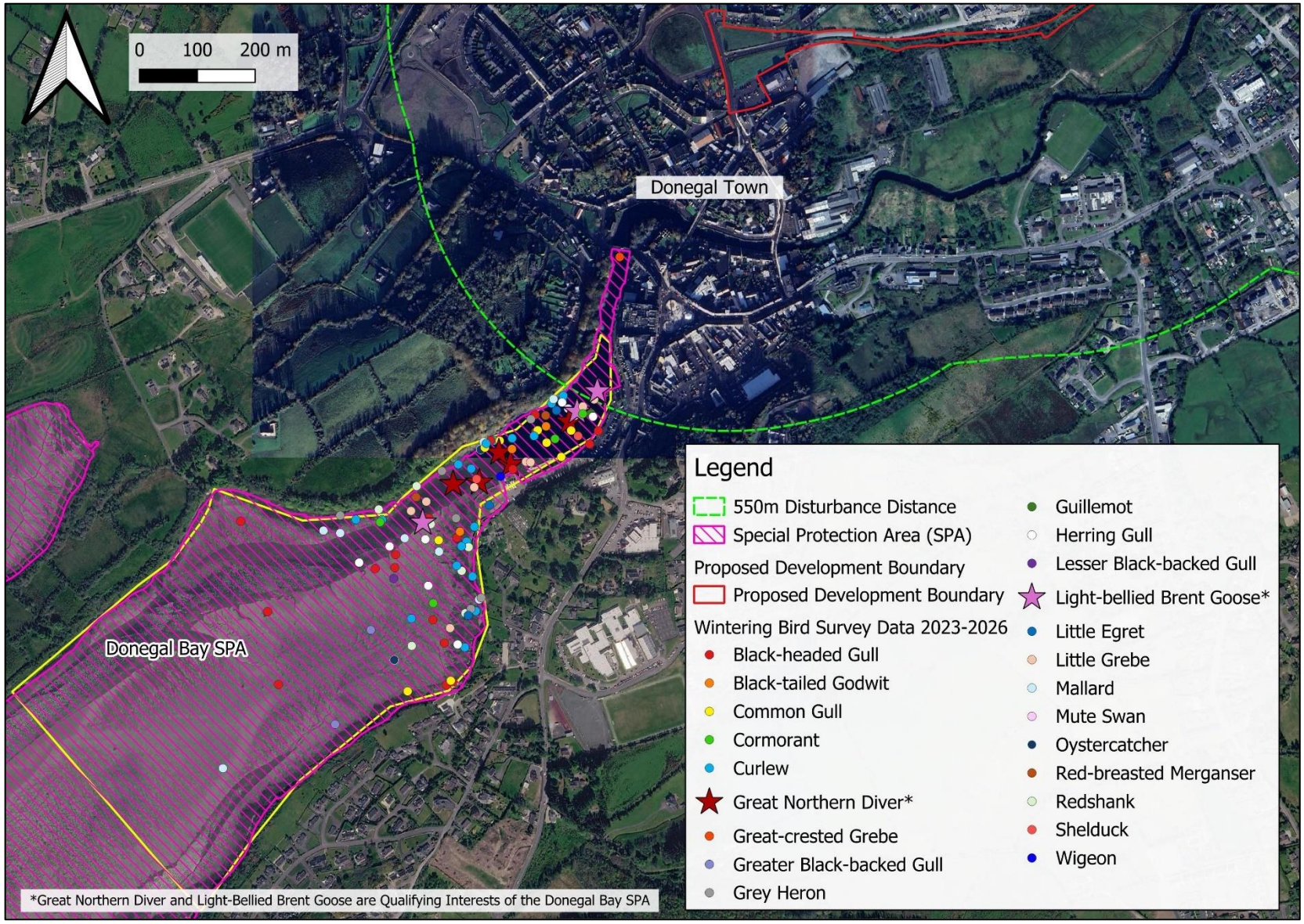
Wintering bird surveys were conducted locations that were identified as having suitable habitat for wintering waterbirds between Donegal Town and Ballybofey/Stranorlar between October 2023-March 2024 and January-March 2025. The locations are provided at the end of this Appendix. A total of 20 wintering bird species were recorded. Light-bellied Brent Goose (*Branta bernicla hrota*) and Great Northern Diver (*Gavia immer*) are the only Qualifying Interests of the European sites in the zone of influence that were recorded. These species are Qualifying Interests of the Donegal Bay SPA and were recorded during the wintering bird surveys in 2024 and 2025, respectively, as summarised in Table 3-2 below.

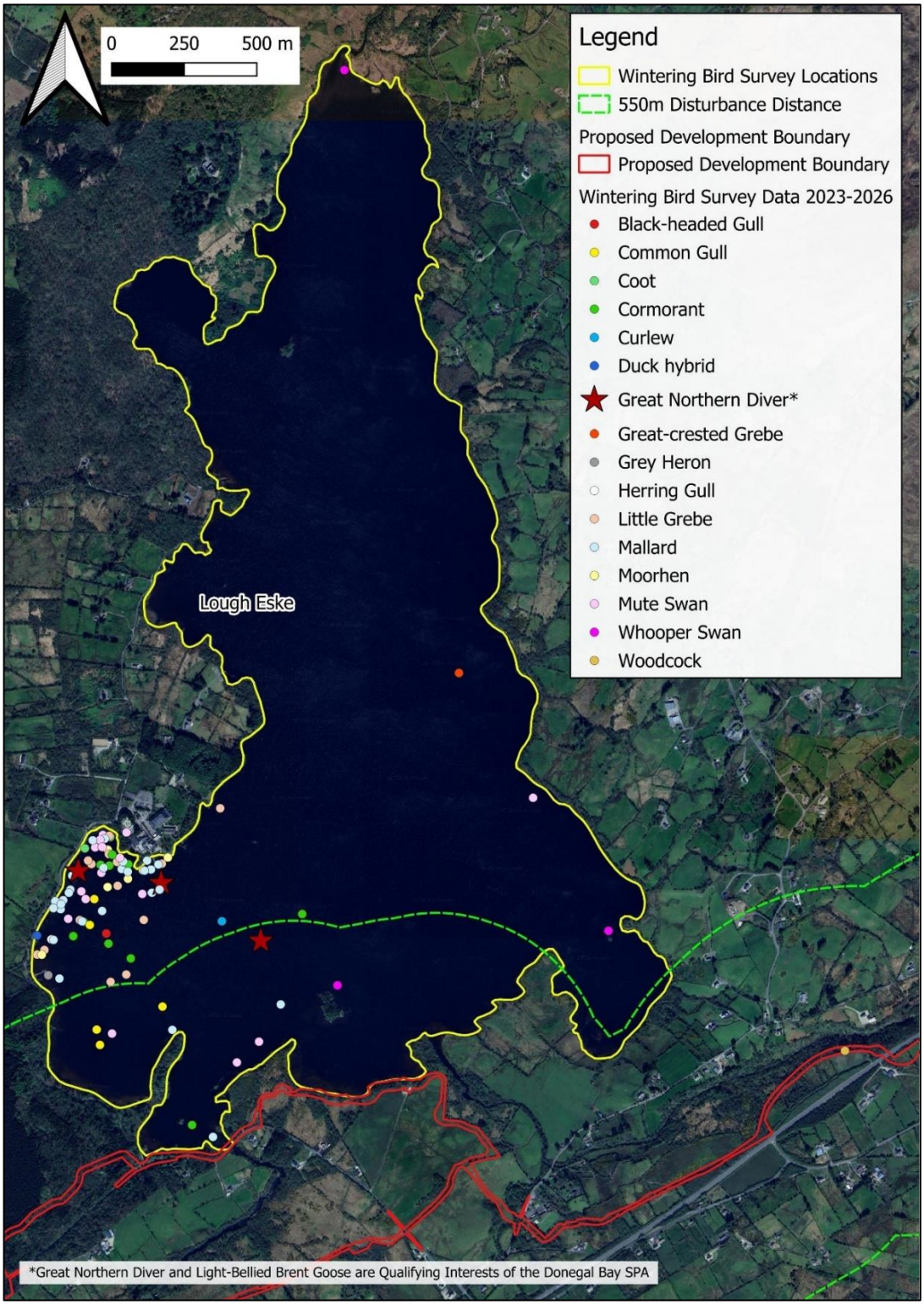
Table 3-2 - Summary of wintering bird survey results from 2023-2024, 2025 and 2025-2026. Peak count is the month where the highest number of that species were recorded across all survey locations.

Species	Peak Counts											
	Inner Donegal Bay			Lough Eske			Lough Mourne			Lough Craig		
	2023-2024	2025	2025-2026	2023-2024	2025	2025-2026	2023-2024	2025	2025-2026	2023-2024	2025	2025-2026
Black-headed Gull	19	55	26	2	0	0	0	0	0	0	0	0
Black-tailed Godwit	6	0	0	0	0	0	0	0	0	0	0	0
Common Gull	2	10	6	0	0	3	0	0	0	0	0	0
Coot	0	0	0	1	0	1	0	0	0	0	0	0
Cormorant	3	1	2	3	1	3	2	0	0	0	0	1
Curlew	2	2	1	0	0	0	0	0	0	0	0	0
Feral duck hybrid sp.	0	0	0	1	0	0	0	0	0	0	0	0
Great Northern Diver	0	2	1	0	1	0	0	0	0	0	0	0
Greater Black-backed Gull	0	0	2	0	0	0	0	0	0	0	0	0
Grey Heron	1	2	1	1	0	0	0	0	1	0	0	0
Guillemot	0	0	2	0	0	0	0	0	0	0	0	0
Herring Gull	9	5	3	0	0	2	0	0	0	0	0	0
Lesser Black-backed Gull	0	0	1	0	0	0	0	0	0	0	0	0
Light-bellied Brent Goose	22	0	0	0	0	0	0	0	0	0	0	0
Little Egret	1	1	1	0	0	0	0	0	0	0	0	0
Little Grebe	2	0	2	3	3	2	0	0	0	0	0	0
Mallard	0	5	6	11	17	24	0	2	0	8	0	2
Moorhen	0	0	0	1	2	1	0	0	0	0	1	0
Mute Swan	0	3	0	5	4	2	0	0	0	0	0	0
Oystercatcher	0	0	4	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	0	0	2	0	0	0	0	0	0	0	0	0
Redshank	0	2	1	0	0	0	0	0	0	0	0	0
Shelduck	5	0	0	0	0	0	0	0	0	0	0	0

Species	Peak Counts											
	Inner Donegal Bay			Lough Eske			Lough Mourne			Lough Craig		
	2023-2024	2025	2025-2026	2023-2024	2025	2025-2026	2023-2024	2025	2025-2026	2023-2024	2025	2025-2026
Whooper Swan	0	0	0	5	0	0	0	0	0	0	0	0


0
2.5
5 km
Ballybofey / Stranorlar
Lough Mourne
Croaghonagh Bog SAC
Lough Eske
Lough Craig
Donegal Town
Donegal Bay SPA
Legend
Wintering Bird Survey Locations
550m Disturbance Distance
Special Protection Area (SPA)
Proposed Development Boundary
Proposed Development Boundary
Wintering Bird Survey Data 2023-2026
Black-headed Gull
Black-tailed Godwit
Common Gull
Coot
Cormorant
Curlew
Duck hybrid
Great Northern Diver*
Great-crested Grebe
Greater Black-backed Gull
Grey Heron
Guillemot
Herring Gull
Lesser Black-backed Gull
Light-bellied Brent Goose*
Little Egret
Little Grebe
Mallard
Moorhen
Mute Swan
No birds observed
Oystercatcher
Red-breasted Merganser
Redshank
Shelduck
Snipe
Whooper Swan
Wigeon
Woodcock
*Great Northern Diver and Light-Bellied Brent Goose are Qualifying Interests of the Donegal Bay SPA


0 100 200 m
Donegal Town
Donegal Bay SPA
Legend
550m Disturbance Distance
Special Protection Area (SPA)
Proposed Development Boundary
Proposed Development Boundary
Wintering Bird Survey Data 2023-2026
Black-headed Gull
Black-tailed Godwit
Common Gull
Cormorant
Curlew
Great Northern Diver*
Great-crested Grebe
Greater Black-backed Gull
Grey Heron
Guillemot
Herring Gull
Lesser Black-backed Gull
Light-bellied Brent Goose*
Little Egret
Little Grebe
Mallard
Mute Swan
Oystercatcher
Red-breasted Merganser
Redshank
Shelduck
Wigeon
*Great Northern Diver and Light-Bellied Brent Goose are Qualifying Interests of the Donegal Bay SPA


0
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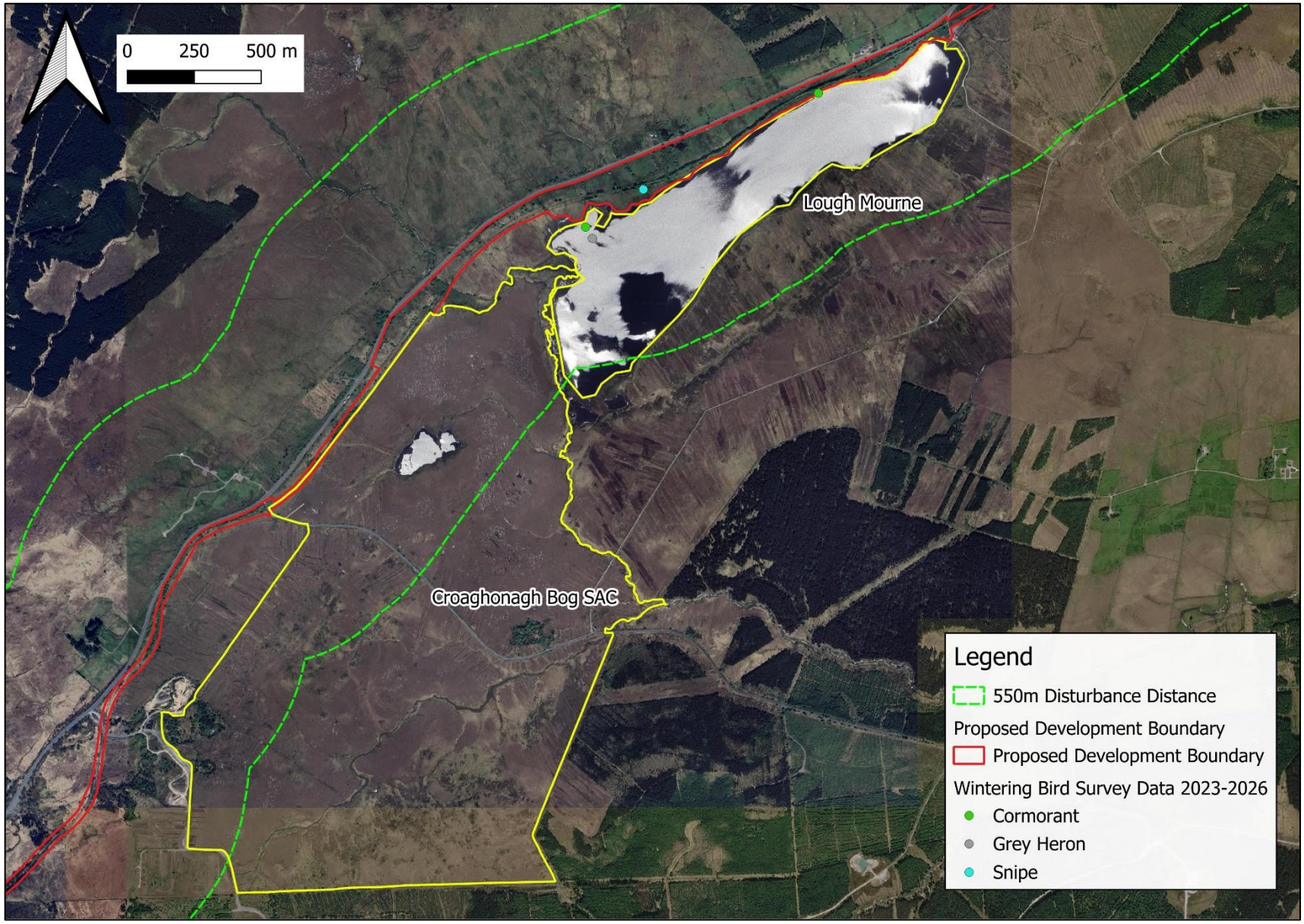
Legend
Wintering Bird Survey Locations
550m Disturbance Distance
Proposed Development Boundary
Proposed Development Boundary
Wintering Bird Survey Data 2023-2026
Black-headed Gull
Common Gull
Coot
Cormorant
Curlew
Duck hybrid
Great Northern Diver*
Great-crested Grebe
Grey Heron
Herring Gull
Little Grebe
Mallard
Moorhen
Mute Swan
Whooper Swan
Woodcock
Lough Eske
*Great Northern Diver and Light-Bellied Brent Goose are Qualifying Interests of the Donegal Bay SPA

Lough Craig
Legend
550m Disturbance Distance
Proposed Development Boundary
Proposed Development Boundary
Wintering Bird Survey Data 2023-2026
Cormorant
Mallard
Moorhen
Woodcock


0 250 500 m
Lough Mourne
Croaghonagh Bog SAC
Legend
550m Disturbance Distance
Proposed Development Boundary
Proposed Development Boundary
Wintering Bird Survey Data 2023-2026
Cormorant
Grey Heron
Snipe

3.4 Watercourses, Fisheries and Aquatic Fauna

Water Quality

Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy (the Water Framework Directive or 'WFD') requires that each Member State protect and improve water quality in all waters so that good ecological status is achieved. Additionally, proposed actions (within discrete River Basin Management Plans) are also required, to secure national natural water resources for the future. The Environmental Protection Agency (EPA) is the Competent Authority responsible for monitoring, protecting and improving the water environment in the Republic of Ireland.

In accordance with WFD guidelines, water quality 'Status' is assigned using a variety of available data on aquatic flora and fauna (including fish), the availability of nutrients, and aspects like salinity, temperature and pollution by chemical pollutants. Morphological features, such as quantity, water flow, water depths and structures of the riverbeds, are also taken into account.

The original EPA water quality classification system (the 'Quality Rating System' or 'Q-values') is also used to assess water quality in Irish rivers, this system is based principally on macroinvertebrates but also considers aquatic macrophytes, phytobenthos and hydromorphology. The Quality Rating System has been shown to be a robust and sensitive measure of riverine water quality and has been linked with both chemical status and land-use pressures in catchments. Individual macroinvertebrate species are ranked for their sensitivity to organic pollution and the Q-value is assessed based, primarily, on their relative abundance within a biological sample. A review of both the internal EPA Q-value status and WFD surface water status for the relevant watercourses was undertaken.

The EPA's online map viewer provides access to information at individual waterbody level in Ireland. Waterbodies can relate to surface waters (these include rivers, lakes, estuaries [transitional waters], and coastal waters) or to groundwater.

The EPA is responsible for monitoring the quality of all waterbodies in Ireland and these results are available online. The current statuses for the waterbodies connected to the proposed development are presented in Table 3-3. The 'Poor' and 'Moderate' statuses of the waterbodies are indicated to be as a result of poor Phytoplankton and Macroinvertebrate Status, respectively as per the EPA Catchments website.

Table 3-3 - EPA Water Quality Results

Waterbody	WFD Status 2013 – 2018	WFD Status 2016 – 2021	WFD Status 2019 – 2024	Ecological Status 2013 – 2018	Ecological Status 2016 – 2021	Ecological Status 2019 – 2024
Rivers						
BURN DAURNETT_010	Poor	Moderate	Moderate	Poor	Moderate	Moderate
CLOGHER (DONEGAL)_010	Good	Good	Moderate	Good	Good	Moderate
Drummeny_010	Good	Good	Good	Good	Good	Good
ESKE_010	Good	Good	Good	Good	Good	Good
ESKE_020	Good	Good	Good	Good	Good	Good
FINN (DONEGAL)_060	Poor	Poor	Good	Poor	Poor	Good
LOWERYMORE_010	Good	Moderate	Moderate	Good	Moderate	Moderate
LOWERYMORE_020	High	High	High	High	High	High
LOWERYMORE_030	High	High	High	High	High	High
MOURNE BEG_010	Poor	Poor	Poor	Poor	Poor	Poor
Lakes						
Lough Eske	Good	Good	Good	Good	Good	Good
Lough Mourne DL	Good	Good	Good	Good	Good	Good
Unnamed [Code: 37_25]	Unassigned	Unassigned	Unassigned	Unassigned	Unassigned	Unassigned
Transitional Waterbodies						
Inner Donegal Bay	Good	Good	Good	Good	Good	Good
Foyle and Faughan Estuaries	Moderate	Unassigned	Unassigned	Moderate	Unassigned	Unassigned
Groundwater						
Donegal-Ballintra	Good	Good	Good	n/a	n/a	n/a
Donegal South	Good	Good	Good	n/a	n/a	n/a
Castlederg	Good	Good	Good	n/a	n/a	n/a

Waterbody	WFD Status 2013 – 2018	WFD Status 2016 – 2021	WFD Status 2019 – 2024	Ecological Status 2013 – 2018	Ecological Status 2016 – 2021	Ecological Status 2019 – 2024
Ballybofey	Good	Good	Good	n/a	n/a	n/a

3.5 Fish Species

A search of IFI's online open data portal (IFI, 2025) returned records of numerous fish species in watercourses connected to the proposed development, namely the Inner Donegal Bay and Lough Eske. Species recorded in these waterbodies are presented below in Table 3-4. The WFD Fish Ecological status at Inner Donegal Bay and Lough Eske was classified as 'good', and 'high', respectively.

Fish species protected under Annex II of the Habitats Directive have been recorded in the Eske Catchment including Atlantic Salmon (*Salmo salar*). No other fish species protected under Annex II of the Habitats Directive have been recorded in the Eske catchment in recent years, although they are presumed to be in suitable habitat. Several other migratory fish species occur in the Eske catchment, such as Sea Trout (*Salmo trutta*) and Eel (*Anguilla anguilla*).

Table 3-4 - Fish species recorded in waterbodies connected to the proposed development (IFI, 2025)

Common Name	Scientific Name	Inner Donegal Bay	Lough Eske
Arctic char	*Salvelinus alpinus*		X
Brill	*Scophthalmus rhombus*	X	
Brown trout	*Salmo trutta*		X
Coalfish / Pollock	*Pollachius virens*	X	
Atlantic Cod	*Gadus morhua*	X	
Deep-snouted pipefish	*Syngnathus typhle*	X	
European eel	*Anguilla anguilla*		X
Fifteen-spined stickleback	*Spinachia*	X	
Fivebeard rockling	*Ciliata mustela*	X	
European Flounder	*Platichthys flesus*	X	
Greater Pipefish	*Syngnathus acus*	X	
Greater sandeel	*Hyperoplus lanceolatus*	X	
Gunnel	*Pholis gunnellus*	X	
Lesser sandeel	*Ammodytes tobianus*	X	
Long-spined sea scorpion	*Taurulus bubalis*	X	
European Plaice	*Pleuronectes platessa*	X	
Pogge	*Agonus cataphractus*	X	
Pollack		X	
Poor cod	*Trisopterus minutus*	X	
Rock goby	*Gobius paganellus*	X	
Salmon	*Salmo salar*		X
Sand goby	*Pomatoschistus minutus*	X	
Sea trout	*Salmo trutta*	X	X
Three-spined stickleback	*Gasterosteus aculeatus*		X

3.6 Freshwater Pearl Mussel

Desk Study

Freshwater Pearl Mussel are known to occur in the River Eske and are a Qualifying Interest of the Lough Eske and Ardnamona Wood SAC. This species' distribution stretches from Lough Eske to the end of the freshwater extent of the River Eske in Donegal town, where the river becomes estuarine at Donegal Bay. This species is highly threatened and critically endangered in Ireland and across Europe. The species' poor conservation status and severe declines have not resulted from exploitation but rather from habitat deterioration. A combination of hydrological and morphological changes, sedimentation and enrichment. Riverbeds have become so clogged with silt, algae and rooted plants that young mussels can no longer survive. In many rivers, adult mussels have become stressed and are prematurely dying owing to habitat deterioration (NPWS, 2025g).

The Freshwater Pearl Mussel desk study (EcoFACT, 2024) was undertaken to identify existing records of this species within the affected river catchments and to assess the potential for this species to occur in the watercourses that have the potential to be impacted by the proposed development. For the Eske sub-catchment (SC_010), Freshwater Pearl Mussel have been recorded in the River Eske from Lough Eske to the estuarine limits at Donegal Town. However they are largely absent in the tributaries of the River Eske, which are typically made up of eroding, mountainous rivers and streams. There are no records of Freshwater Pearl Mussel in the Mourne Beg sub-catchment (SC_010). Given historic records, Freshwater Pearl Mussel may still be present in the lower Foyle catchment, however this population is likely not reproducing, and as such, is at least functionally extinct. Similarly, for the Mourne Beg sub-catchment (SC_040), Freshwater Pearl Mussel are largely absent, however it is noted in the desk study that given historic records and the large size of the River Finn, a small population may still be present.

Field Survey

The freshwater pearl mussel surveys undertaken for the proposed development recorded live specimens at two of the 18 sites that were surveyed. Both sites where Freshwater Pearl Mussel were recorded were located in the main channel of the River Eske and were found to support good numbers of mussels and provide high-quality habitat for this species. A third and fourth site within the main channel of the River Eske was also surveyed. No evidence of Freshwater Pearl Mussel (live or dead shells) was found at either site and it should be noted that both of these sites are a short distance upstream of Site No. 2 (the location of the proposed River Eske crossing), where live mussels were found. Some suitable habitat for this species occurs at Site No. 3 (main channel of the River Eske), but not at Site No. 4 (minor tributary).

All of the remaining sites in the Eske catchment were located upstream of Lough Eske and provided little to no suitable habitat for Freshwater Pearl Mussel.

No evidence of Freshwater Pearl Mussel (live or dead shells) was found at any of the sites in the Mourne Beg or Finn catchments. With the exception of the main channel of the River Finn, the sites in the Mourne Beg and Finn catchments provided little to no suitable habitat for this species.

3.7 Invasive Alien Species

Desk Study

Records on the NBDC biodiversity database (NBDC, 2025) for a number of invasive alien species subject to restrictions as listed on the Third Schedule of the Birds and Natural Habitats Regulations [S.I.477/2011] were identified within the vicinity of the proposed development [NBDC 2x2km Grid Squares: G97J, G97P, G98K, G98Q, G98R, G98V, G98W, H08B, H08C, H08H, H08I, H08N, H08P, H08U, H08Q, H09V, H19A, H19B, H19G, H19L, H19M] (**Table 3-5Error! Reference source not found.** below).

Table 3-5 - Invasive alien species recorded in the vicinity of the proposed development (NBDC Grid Squares: G97J, G97P, G98K, G98Q, G98R, G98W, G98V, H08B, H08C, H08H, H08I, H08N, H08P, H08U, H08Q, H09V, H19A, H19B, H19G, H19L, H19M).

Common Name	Scientific Name
American Mink	*Mustela vison*
Canada Goose	*Branta canadensis*
Canadian Waterweed	*Elodea canadensis*
Cherry Laurel	*Prunus laurocerasus*
Giant Hogweed	*Heracleum mantegazzianum*
Grey Squirrel	*Sciurus carolinensis*
Himalayan Balsam	*Impatiens glandulifera*
Japanese Knotweed	*Reynoutria japonica*
Jenkin's Spire snail	*Potamopyrgus antipodarum*
New Zealand Flatworm	*Arthurdendyus triangulatus*
Nuttall's Waterweed	*Elodea nuttallii*
Rhododendron	*Rhododendron ponticum*

Field Survey

During the field surveys, four species restricted under Regulation 49 of the Habitats Regulations, namely Japanese Knotweed (*Reynoutria japonica*), Giant Knotweed (*Reynoutria* sachalinensis), Rhododendron (*Rhododendron ponticum*) and Himalayan Balsam (*Impatiens glandulifera*), were recorded at various locations along the route of the proposed development. A large infestation of Himalayan Balsam was recorded growing on the northern bank of the River Finn in Ballybofey/Stranorlar. Cherry Laurel was recorded in very large areas to the southwest of Lough Eske. While not restricted under Regulation 49 of the Habitats Regulations, Cherry Laurel is considered to be an invasive species as it outcompetes native species and suppresses regeneration by forming thick stands and avoids herbivory by wildlife (Maguire et al., 2008).

In some areas, the railway has been subsumed into the surround fields, whereas in other areas it is relatively intact, with embankments, treelines, stone walls and fencing marking the original railway boundaries. In many areas, the disused railway line is used for farm access. The proposed greenway leaves Donegal town and follows the River Eske valley through agricultural grassland before splitting, with one section travelling through field on the south side of the River Eske, and the other forming the Lough Eske Loop. The loop will involve the construction of a new clear span bridge across the River Eske before the route travels through Ardnamona Wood. Ardnamona wood is a mixed woodland that includes semi-natural woodland, conifer plantation and felled areas. Parts of it are listed on the NPWS database of 'ancient and long established woodland', meaning the areas has been woodland continuously since the 19th century. It will then cross the River Eske on the existing bridge before rejoining the main route of the greenway.

The route than passes close to St. Francis National School before travelling north-east through the Barnesmore Gap. At this point the area surround the route becomes more upland in character with open heath and bog habitats dominating the landscape. The route follows the gap through Crogjhanagh Bog on the disused railway line and passes between Lough Mourne and the N15. The route then enters an areas of conifer plantation, using the disused railway line and forest roads. The landscape then becomes predominantly farmland again, with pockets of immature woodland and scrub. At the point the areas becomes more built up as the route enters the outskirts of Ballybofey. The route crosses the River Finn on a new deck which will be fitted to the original railway bridge piers, before terminating in Stranorlar.

4. References

EPA (2025) Unified GIS Application <https://gis.epa.ie/EPAMaps/> [Accessed September 2025]. Environmental Protection Agency, Wexford.

NPWS (2025a) The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary. Prepared by the National Parks & Wildlife Service on behalf of the Government of Ireland.

NPWS (2025b) The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Prepared by the National Parks & Wildlife Service on behalf of the Government of Ireland.

NPWS (2025c) The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Prepared by the National Parks & Wildlife Service on behalf of the Government of Ireland.

TII (2008) *Ecological Survey Techniques for Protected Flora and Fauna during the Planning of National Road Schemes PE-ENV-01113*.

TII (December 2006) *Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes CC-ENV-01104*.

TII (December 2005) *Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes CC-ENV-01101*.

TII (December 2009) *Guidelines for Assessment of Ecological Impacts of National Road Schemes* PE-ENV-01112.

TII (2020b). The Management of Invasive Alien Plant Species on National Roads – Technical Guidance. GE-ENV-01105.

Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011).

Margaritifera margaritifera *Stage 1 and Stage 2 survey guidelines* (Anon, 2004). *Irish Wildlife Manuals 12. National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.*

Physical microhabitat requirements of freshwater pearl mussel Margaritifera margaritifera (Hastie et al., 2000).

Ecology of the Freshwater Pearl Mussel (Skinner et al., 2003).

APPENDIX D
DESCRIPTION OF EUROPEAN SITES

1. Site Descriptions

1.1 Donegal Bay (Murvagh) SAC

The description of the Donegal Bay (Murvagh) SAC provided here is based on the Conservation Objectives (NPWS, 2026) and Site Synopsis (NPWS, 2018) for the site. Priority habitats are highlighted with an asterisk '*'.

Qualifying Interests of the Site

[1140] Mudflats and sandflats not covered by seawater at low tide

[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)

[2170] Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*)

[2190] Humid dune slacks

[1365] Harbour Seal (*Phoca vitulina*)

Site Overview

This site occupies the inner part of Donegal Bay, immediately to the south-west of Donegal Town. It contains the estuary of the River Eske and a number of other significant rivers. The area is underlain by Carboniferous limestone and shale, although blown sand and other recent deposits obscure much of the solid geology.

Most of the site consists of intertidal habitats, notably mud- and sandflats, sea inlets and bays, tidal rivers, estuarine channels and sandy beaches. These areas are generally unvegetated but are obviously nutrient-rich, as extensive beds of shellfish occur in parts of the bay. The following macro-invertebrate species are common throughout much of the bay: *Arenicola marina, Hediste diversicolor, Scrobicularia plana* and *Macoma balthica*.

Along some parts of the shore, saltmarsh has developed. Dominant plants there include Thrift (*Armeria maritima*), Red Fescue (*Festuca rubra*) and Common Scurvygrass (*Cochlearia officinalis*). Sea Arrowgrass (*Triglochin maritima*), Sharp Rush (*Juncus acutus*) and Saltmarsh Rush (*J. gerardi*) are also common, while brown seaweeds (*Fucus* spp.) are abundant lower down the shore profile.

On the stable parts of some of the shingle and boulder beaches, Common Scurvygrass also occurs, along with Silverweed (*Potentilla anserina*) and Sea-milkwort (*Glaux maritima*).

Sand dunes, including fixed dunes, occur in parts of the site, especially at Murvagh. Intact sections contain Sea Sandwort (*Honkenya peploides*) and Marram (*Ammophila arenaria*) in the young dunes, with abundant Marram in the fixed dunes. These stable areas are frequently species-rich, with abundant Field Wood-rush (*Luzula campestris*), a well-developed moss community including *Thuidium tamariscinum* and *Rhytidiadelphus squarrosus*, and herbs such as Common Bird's-foot-trefoil (*Lotus corniculatus*), Wild Thyme (*Thymus praecox*),

Heath Dog-violet (*Viola canina*) and Lady's Bedstraw (*Galium verum*). Dune slacks also occur and in one slack the Red Data Book species Round-leaved Wintergreen (*Pyrola rotundifolia*) occurs. Typical species of dunes with Creeping Willow occur at Mullanasole and include: Creeping Willow (*Salix repens*), Sand sedge (*Carex arenaria*), Red Fescue, Lady's Bedstraw, Common Bird's-foot-trefoil and Mouse-ear Hawkweed (*Pilosella officinarum*) along with other typical species of fixed dune including: False Oat-grass (*Arrhenatherum elatius*), Selfheal (*Prunella vulgaris*), Wild Thyme and the mosses *Hypnum cupressiforme, Rhytidiadelphus triquetrus* and *Rhytidiadelphus squarrosus*. The Common Twayblade orchid (*Listera ovata*) occurs throughout this habitat. Other species present include: Creeping Bent (*Agrostis stolonifera*), Marram Grass and the moss *Pleurozium schreberi*.

Both Common Scoter and Brent Goose are found in the greater Donegal Bay area, from Bundoran north to Murvagh. The Bay provides one of the most important sites in the country for the Common Scoter, with peak numbers of approximately 1,500 individuals in 1984/85 - 1986/87. This species uses large wintering grounds making counts difficult, but in recent

years peaks of 662 birds (1995/96) and 1,073 birds (1997/98) have been recorded in the area. Other wintering species of note from the site include Ringed Plover 175, Oystercatcher 119 and Dunlin 221 (data based on 18 counts from 1984/85 - 1986/87). Small numbers (up to 50) of Greenland White-fronted Goose from the Pettigo flock fed at Inishpat Island in the 1980s, but have rarely done so in recent years.

The site supports a population of Common Seal (maximum count of 148 in the all-Ireland survey of 2003). This species is listed on Annex II of the E.U. Habitats Directive.

1.2 Lough Eske and Ardnamona Wood SAC

The description of the Lough Eske and Ardnamona Wood SAC is provided here is based on the Conservation Objectives (NPWS, 2019) and Site Synopsis (NPWS, 2015) the for the site. Priority habitats are highlighted with an asterisk '*'.

Qualifying Interests of the Site

[3110] Oligotrophic Waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)

[7220] Petrifying Springs with tufa formation (Cratoneurion)*

[91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

[1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*)

[1106] Atlantic Salmon (*Salmo salar*)

[1421] Killarney Fern (*Vandenboschia speciosa*)

Site Overview

Lough Eske is a large lowland oligotrophic lake. It lies approximately 5 km north-east of Donegal town at the junction of Carboniferous rocks with more resistant Dalradian gneiss and granite. The site also includes the River Eske and short stretches of the Lowerymore, Clogher and Drummenny Rivers, as well as a number of smaller tributaries.

The shore of Lough Eske has a diverse and interesting flora which reflects the contrasting geology within the site. It includes heath-covered peninsulas, rocky shores, small flushes, wet and dry woodland fringes, occasional reedbeds of Phragmites australis, small freshwater marshes and some interesting species-poor fen communities (particularly on the northern shore of the lake) which are typified by Star Sedge (*Carex echinata*). In addition there are also small, but relatively intact, very wet areas of blanket bog.

Ardnamona Wood, on the western side of the lake, is an old oak woodland. It is of great scientific interest for its size, naturalness and flora. It displays a habitat range from dry areas dominated by Pedunculate Oak (*Quercus robur*) to wet woodland with Alder (*Alnus glutinosa*). Ash (*Fraxinus excelsior*), Rowan (*Sorbus aucuparia*) and Downy Birch (*Betula pubescens*) also occur in the high canopy with Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*) and Willow (*Salix* spp.) in the understorey. Oak and Birch woodland is also found along the valley of the Lowerymore River. The north side of this valley also has some petrifying springs, a priority Annex I habitat under the E.U. Habitats Directive. These all possess moss species which are diagnostic of the habitat, such as *Cratoneuron commutatum, C. filicinum* and *Eucladium verticillatum*.

The Killarney Fern (*Vandenboschia speciosa*), a Red Data Book species listed in Annex II of the E.U. Habitats Directive and included under the Flora (Protection) Order, 2022, occurs in the site. Two other rare plants, Whorled Caraway (*Carum verticillatum*) and Six-stamened Waterwort (*Elatine hexandra*), are also present.

Important animals recorded from the site include good populations of Atlantic Salmon and Freshwater Pearl Mussel (*Margaritifera margaritifera*), both listed on Annex II of the E.U. Habitats Directive, and the Arctic Char (*Salvelinus alpinus*), a rare fish listed in the Red Data Book of Irish vertebrates. The Eske system is an important multi-sea-winter (spring salmon) stock, one of the few rivers nationally to hold 3-sea-winter fish over 20 lb.

This site contains three habitats listed in the E.U. Habitats Directive - lowland oligotrophic lake, petrifying springs and old oak woodland. Three species which are also included in the Habitats Directive - the Killarney Fern, the Atlantic Salmon and the Freshwater Pearl Mussel - are also present in the site.

1.3 Croaghonagh Bog SAC

The description of the Croaghonagh Bog SAC is provided here is based on the Conservation Objectives (NPWS, 2017a) and Site Synopsis (NPWS, 2013a) the for the site. Priority habitats are highlighted with an asterisk '*'.

Qualifying Interests of the Site

[7130] Blanket Bogs (* if active bog)

Site Overview

Croaghonagh Bog is a small but quite intact blanket bog which occurs on the south-west shore of Lough Mourne, 17km north-east of Donegal town. The site is underlain by metamorphosed sandstone and includes a good diversity of habitats including active bog, wet heath, lakeshore, streams and ditches, and some old cut-away bog.

Croaghonagh Bog displays some features of a raised bog and consists of a large, broad dome divided into two parts by dry, narrow channels, some of which contain swallow-holes. There is also a small lake in the middle of the site. The bog surface is spongy or quaking in localised areas, and contains a variety of features including widespread hummock/hollow communities and some large bog pools. There is an extensive cover of bog mosses (*Sphagnum* spp.), including several species of note such as *S. fuscum, S. imbricatum* and *S. magellanicum*. Other species recorded here include Bogbean (*Menyanthes trifoliata*), Great Sundew (*Drosera anglica*), Lesser Bladderwort (*Utricularia minor*) and Common Butterwort (*Pinguicula vulgaris*). Hummock vegetation includes Heather (*Calluna vulgaris*), Cross-leaved Heath (*Erica tetralix*), Hare's-tail Cottongrass (*Eriophorum vaginatum*) and *Cladonia lichens*.

Bird species recorded from the site include Greenland White-fronted Goose and Merlin (*Falco columbarius*), both of which are listed on Annex I of the E.U. Birds Directive, along with Red Grouse (*Lagopus lagopus hibernicus*), Curlew and Kestrel (*Falco tinnunculus*). Deer, Otter and Hare also occur on the site.

1.4 River Finn SAC

The description of the River Finn SAC is provided here is based on the Conservation Objectives (NPWS, 2017b) and Site Synopsis (NPWS, 2014a) the for the site. Priority habitats are highlighted with an asterisk '*'.

Qualifying Interests of the Site

[3110] Oligotrophic Waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)

[4010] Northern Atlantic wet heaths with *Erica tetralix*

[7130] Blanket Bogs (* if active bog)

[7140] Transition mires and quaking bogs

[1106] Atlantic Salmon (*Salmo salar*)

[1355] Otter (*Lutra lutra*)

Site Overview

This site comprises almost the entire freshwater element of the River Finn and its tributaries the Corlacky, the Reelan sub-catchment, the Sruhamboy, Elatagh, Cummirk and Glashagh, and also includes Lough Finn, where the river rises. The spawning grounds at the headwaters

of the Mourne and Derg Rivers, Loughs Derg and Belshade and the tidal stretch of the Foyle north of Lifford to the border are also part of the site. The Finn and Reelan, rising in the Bluestack Mountains, drain a catchment area of 195 square miles. All of the site is in Co. Donegal. The underlying geology is Dalradian Schists and Gneiss for the most part though quartzites and Carboniferous Limestones are present in the vicinity of Castlefinn. The hills around Lough Finn are also on quartzite. The mountains of Owendoo and Cloghervaddy are of granite felsite and other intrusive rocks rich in silica. There are many towns along the river but not within the site, including Lifford, Castlefinn, Stranolar and Ballybofey.

Upland blanket bog occurs throughout much of the upland area of the site along the edges of the river. However, more extensive examples are found at Tullytresna and in the Owendoo/Cloghervaddy bogs. The blanket bog is dominated by Common Cottongrass (*Eriophorum angustifolium*), Deergrass (*Scirpus cespitosus*), Purple Moor-grass (*Molinia caerulea*) and bog mosses (*Sphagnum* spp.). Pool and hummock systems are a feature of the flatter areas, with Heather (*Calluna vulgaris*), mosses (*Racomitrium lanuginosum, Sphagnum capillifolium* and *S. papillosum*), lichens (e.g. *Cladonia portentosa*) and the liverwort *Pleurozia purpurea* occurring abundantly on the hummocks. The scarce bog boss *S. imbricatum* is a component of some hummocks. *Sphagnum magellanicum* is found in wet flats by pools, while *S. cuspidatum* occurs abundantly within the pools themselves.

Towards the base of the northern slope and on the southern slope at Tullytresna flushes occur with bright green lawns of bog mosses and abundant rushes, particularly Soft Rush (*Juncus effusus*) and Jointed Rush (*J. articulatus*). On the summit is an undulating system of hummocks and hollows, and Heather is more common.

A valley bog fills the low-lying areas to the north-east of Lough Finn which is dominated by Deergrass, cottongrass, Purple Moor-grass and Heather. Mossy hummocks occur in the wetter areas.

Transition mires (or quaking bogs or scraws) occur at several locations, usually at the interface between bog and lake or stream. In Owendoo/Cloghervaddy there are many examples of small lakes south of Belshade. Some of the lakes contain floating scraws of the bog moss *S. recurvum*, Bottle Sedge (*Carex rostrata*), Bog-sedge (*C. limosa*) and Bogbean (*Menyanthes trifoliata*). West of Owendoo River there is an extensive area of scraw with a similar suite of species but in differing abundances. Quaking areas are also associated with blanket bog at Cronamuck and Cronakerny. A t Cronamuck, a small, level flushed area occurs at the base of a slope leading into a flushed stream. Diversity, including diagnostic species, is good.

Wet heath is associated with the blanket bog throughout the site and is found on the shallow peats and better drained slopes. In Owendoo/Cloghervaddy this is mostly characterised by Cross-leaved Heath (*Erica tetralix*), Heather, Mat-grass (*Nardus stricta*), Heath Rush (*Juncus squarrosus*) and Tormentil (*Potentilla erecta*). The heath often grades into flush vegetation dominated by Black Bog-rush (*Schoenus nigricans*).

Lowland oligotrophic lakes are found at Loughs Finn, Belshade and Derg, as well as in many of the smaller lakes within the site. Lough Derg is a large oligotrophic lake situated north of Pettigo. An extensive area of blanket bogs and conifer plantations make up the lake catchment. Typical species seen at the three lakes include a sparse covering of Shoreweed (*Littorella uniflora*) along the lake shores, Water Lobelia (*Lobelia dortmanna*), the moss *Fontinalis antipyretica*, Bog Pondweed (*Potamogeton polygonifolius*) and Water Horsetail (*Equisetum fluviatile*), with Bulbous Rush (*Juncus bulbosus*) and Broad-leaved Pondweed (*P. natans*) in the margins.

On the tidal stretches within the site the main habitats are the river itself, mudflats and the extensive reedbeds that have colonised the former mudflats. The habitats found are typically freshwater in nature. The large reedbeds are dominated by Common Reed (*Phragmites australis*), with some Bulrush (*Typha latifolia*), Reed Canary-grass (*Phalaris arundinacea*) and Tufted Hair-grass (*Deschampsia cespitosa*). Succession is demonstrated nicely within a small area, with the change from mudflats to reedbeds, and on to willow (*Salix* spp.) and Alder (*Alnus glutinosa*) scrub.

Other habitats present within the site include a fringe of wet grassland/marsh along some river stretches dominated by rushes, grading into species-rich marsh in which sedges are common. Among the other species found in this habitat are Yellow Iris (*Iris pseudacorus*), Water Mint

(*Mentha aquatica*), Purple Loosestrife (*Lythrum salicaria*) and Soft Rush. Around Lough Derg wet fen type vegetation occurs in places with Purple Moor-grass, Bog-myrtle (*Myrica gale*), Jointed Rush and Meadowsweet (*Filipendula ulmaria*). There is also some Royal Fern (*Osmunda regalis*), Wild Angelica (*Angelica sylvestris*) and Marsh-marigold (*Caltha palustris*).

Where banks are steeper, particularly around Lough Derg and along the deep mountain valley of the upper stretches, dry, steep slopes support Great Wood-rush (*Luzula sylvatica*), Heather, Bell Heather (*Erica cinerea*), Bilberry (*Vaccinium myrtillus*) and Bracken (*Pteridium aquilinum*). There are areas of scrub surrounding parts of the lake margins, along the channels and on the ungrazed islands. These are composed of Alder, willows, Rowan (*Sorbus aucuparia*) and Silver Birch (*Betula pendula*). Understorey plants include abundant ferns and mosses. The rare Narrow-leaved Helleborine (*Cephalanthera longifolia*) occurs on the shores of Lough Derg. This species is listed in the Irish Red Data Book and is protected under the Flora (Protection) Order, 2022.

Small pockets of conifer plantation, close to the lakes and along the strip both sides of the rivers, are included in the site.

Lough Finn holds a population of Arctic Char (*Salvelinus alpinus*). This fish is a relative of salmon and trout, and represents an arctic-alpine element in the Irish fauna. In Ireland this fish occurs only in a few cold, stony, oligotrophic lakes. It is listed in the Irish Red Data Book as threatened. The Arctic Char in Lough Finn are unusual in that they are dwarfed. These only occur in one other lake in Ireland, Lough Coornasahom, Co. Kerry and they are therefore of national importance.

Arctic Char are very sensitive to water quality and therefore changes in the catchment such as afforestation should be avoided to maintain this population. Lough Derg is also important for Arctic Char, though the species was last recorded there in 1990/91.

The Finn system is one of Ireland's premier salmon waters. Although the Atlantic Salmon (*Salmo salar*) is still fished commercially in Ireland, it is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the E.U. Habitats Directive. Commercial netting on the Foyle does not begin until June and this gives spring fish a good opportunity to get into the Finn. The Finn is important in an international context in that its populations of spring salmon appear to be stable, while they are declining in many areas of Ireland and Europe. The salmon fishing season is 1st March to 15th September. Fishing for spring salmon is best east of Stranolar while the grilse run through to the upper reaches. The grilse run peaks here, depending on water, usually in mid-June. The estimated rod catch from the Finn is approximately 500-800 spring salmon and 4,000 grilse annually, producing about 40% of the total Foyle count. The Loughs Agency has a management regime in place called the 'control of fishing regulations'. If enough salmon are not past the counter at Killygordon at a certain key date then both the angling and commercial fishing can be closed for set periods.

The site is also important for Otter (*Lutra lutra*), another species listed on Annex II of the E.U. Habitats Directive. It is widespread throughout the system. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include the Badger (*Meles meles*) and the Irish Hare (*Lepus timidus hibernicus*). Common Frog (*Rana temporaria*), another Red Data Book species, also occurs within the site.

Golden Plover, Peregrine (*Falco peregrinus*) and Merlin, threatened species listed on Annex I of the E.U. Birds Directive, breed in the upland areas of the site. The Red Listed species Red Grouse occurs on the site, while the scarce Ring Ouzel (*Turdus torquatus*), another Red List species, is also known to occur.

The site supports important populations of a number of species listed on Annex II of the E.U. Habitats Directive, and several habitats listed on Annex I of this Directive, as well as examples of other important habitats. Blanket bog is a rare habitat type in Europe and receives priority status on Annex I of the E.U. Habitats Directive. The overall diversity and ecological value of the site is increased by the presence of populations of several rare or threatened birds, mammals, fish and plants.

1.5 Cloghernagore Bog and Glenveagh National Park SAC

The description of the Cloghernagore Bog and Glenveagh National Park SAC is provided here is based on the Conservation Objectives (NPWS, 2017c) and Site Synopsis (NPWS, 2013b) the for the site. Priority habitats are highlighted with an asterisk '*'.

Qualifying Interests of the Site

[3110] Oligotrophic Waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)

[3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

[4010] Northern Atlantic wet heaths with *Erica tetralix*

[4030] European dry heaths

[4060] Alpine and Boreal heaths

[6410] *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)

[7130] Blanket bogs (* if active bog)

[7150] Depressions on peat substrates of the *Rhynchosporion*

[91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

[1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*)

[1106] Atlantic Salmon (*Salmo salar*)

[1355] Otter (*Lutra lutra*)

[1421] Killarney Fern (*Vandenboschia speciosa*)

Site Overview

Cloghernagore Bog and Glenveagh National Park SAC is an exceptionally large inland site located in the centre of north-west Donegal. It includes a rich diversity of habitats and landscape features, including mountains, exposed rock and scree, blanket bogs, dry, wet and alpine heath, upland grassland, wet grassland, rivers, lakes, scrub and woodland. The Gweebarra fault bisects the area forming a long valley, orientated north-east to south-west, in which Lough Barra and Lough Veagh

(Beagh) are situated. The area is generally mountainous, taking in most of the Derryveagh and Glendowan ranges and including the two highest mountains in Donegal, Errigal (751 m) and Slieve Snaght (678 m). Towards the centre-west of the site are the fine ice-carved cliffs of the Poisoned Glen and Bingorms, which contrast dramatically with the gently undulating expanses of blanket bog in the south-west and north-east of the site. The underlying rock is predominantly granite, with a few intrusive dykes. However, around Errigal the geology is more complex with bands of schists, quartzite, granodiorite and limestone occurring.

Atlantic blanket bog is the dominant habitat of interest, with much of it being relatively unspoilt. Indeed, the area around Cloghernagore constitutes the most extensive blanket bog system remaining in the north-west of Ireland. Overall, there are excellent examples of several types of blanket bog including Highland Bog (Cashelnagor and Dunlewy Far), Lowland Bog (Cloghernagore and Glenveagh Bridge), Domed Valley Bog (Derrybeg and Calabber Valley), Headwater Bog (Crockastoller and Carrickatimpan Mountain) and blanket bog apparently in the early stages of formation (Attinadague).

The blanket bog vegetation is relatively uniform and typically dominated by Purple Moor-grass (*Molinia caerulea*), Heather (*Calluna vulgaris*), Black Bog-rush (*Schoenus nigricans*), Deergrass (*Scirpus cespitosus*) and Common Cottongrass (*Eriophorum angustifolium*), with areas of Bog-myrtle (*Myrica gale*) also occurring.

A number of features indicative of well-developed blanket bog are found at the site. The pool systems found are typically colonised by bog moss species such as *Sphagnum auriculatum* and *S. cuspidatum*, Lesser Bladderwort (*Utricularia minor*), Bogbean (*Menyanthes trifoliata*)

and sedges (e.g. *Carex panicea* and *C. limosa),* with Great Sundew (*Drosera anglica*) occurring around the margins. Hummocks of *Sphagnum* species (including *S. capillifolium, S. imbricatum* and *S. papillosum*) and other mosses such as *Leucobryum glaucum* and *Racomitrium lanuginosum* are found, as are flushed areas with *Sphagnum* species such as *S. auriculatum* var. *inundatum* and *S. magellanicum*), Common Reed (*Phragmites australis*), rushes (*Juncus acutiflorus* and *J. effusus*) or sedges (*Carex echinata, C. rostrata* and *C. demissa*). There are also quaking flats of mosses (*Campylopus atrovirens, C. brevipilus*, *Pleurozia purpurea* and *Sphagnum* spp.) with sedges (e.g. *Carex lasiocarpa*), and shallow, infilling lakes with associated *Sphagnum* scraws and sedge swards. The vegetation described for the pool areas and wet quaking flats is representative of *Rhynchosporion* vegetation.

A number of scarce or only locally-occurring vascular plant species have been recorded from bogs on the site. These include a hybrid Sundew, *Drosera anglica x D. rotundifolia (Drosera x obovata*), Whorled Caraway (*Carum verticillatum*), Bearberry (*Arctostaphyllos uva-ursi*), Cranberry (*Vaccinium oxycoccos*) and, in a gorge, Cowberry (*Vaccinium vitis-idaea*). Lower plants of note include several mosses (*Sphagnum fuscum, S. contortum, S. recurvum var. tenue, S. molle, Calliergon stramineum* and *Polytrichum longisetum*) and lichens (*Cladonia parasitica, C. gracilis, C. bellidiflora, C. cervicornis subsp. verticillata, C. digitata, Peltigera hymenea, Sphaerophorus fragilis, Usnea fragilescens* and *Umbilicaria polyrrhiza*). Wet heath occurs at this site in an intimate mosaic with blanket bog, and the vegetation of the two habitat types intergrades. This occurs particularly on the lower slopes of hills, where deep lowland blanket peat meets shallower peat on the flanks of hills. Dry heath occurs at this site on slopes above 300 m. Heather and Bell Heather (*Erica cinerea*) are common, while species such as Gorse (*Ulex europaeus*) and Western Gorse (*U. gallii*) are thought to be relatively uncommon. Other species present include Common Bent (*Agrostis capillaris*), Velvet Bent (*A. canina*), Heath-grass (*Danthonia decumbens*) and Sheep's-fescue (*Festuca ovina*).

Subalpine heath is found at this site on very thin, peaty soils with some bare rock evident. The community is typically dominated by Heather and Bilberry (*Vaccinium myrtillus*). Crowberry (*Empetrum nigrum*) is also found on some of the higher mountain slopes. Other species of note in this habitat are Tormentil (*Potentilla erecta*) and the moss *Racomitrium lanuginosum*. Juniper (*Juniperus communis*) and Bearberry are occasional on mountain summits.

The site includes many rivers and streams, containing, or fringed by plants such as Water Horsetail (Equisetum fluviatile), Lesser Spearwort (Ranunculus flammula), pondweeds (Pot*amogeton natans, P. polygonifolius*), sedges (*Carex* spp.) and rushes (*Juncus* spp). By one river the locally-occurring Lemon-scented Fern (*Oreopteris limbosperma*) is found. In some areas gorges have been cut by streams, and here fragments of deciduous woodland remain. These are characterised by Aspen (*Populus tremula*), Rowan (*Sorbus aucuparia*), oak (*Quercus petraea* and *Q. robur*) and willow (*Salix* spp.).

An area of semi-natural deciduous woodland occurs on the steeply sloping eastern side of Glenveagh. The dominant trees are Sessile Oak (*Quercus petraea*), Downy Birch (*Betula pubescens*) and Rowan, with Hazel (*Corylus avellana*) occurring frequently. Holly (*Ilex aquifolium*) occurs in the understorey. Rhododendron (*Rhododendron ponticum*) has invaded much of the woodland and adjacent hillsides. Other species present include Yew (*Taxus baccata*), Juniper and, near Lough Veagh, the scarce Rock Whitebeam (*Sorbus rupicola*). Within the woodland the lower plant community is well-developed with liverworts, including *Frullania tamarisci*, growing on the tree trunks. This is replaced as an epiphyte in damper areas by Wilson's Filmy-fern (*Hymenophyllum wilsonii*). Of particular note is the presence of the scarcer Tonbridge Filmy-fern (*H. tunbrigense*). The woodlands are also notable for the presence of two rare species of Myxomycete fungus, namely *Licea gloeoderma* and *Physarum vernum*, the former in its only known Irish site.

Molinia meadow at the site is characterised by a co-dominance of Purple Moor-grass, Soft Rush (*Juncus effusus*), Sharp-flowered Rush (*J. acutiflorus*) and Conglomerate Rush (*J. conglomeratus*). The habitat occurs in areas that are subject to occasional flooding. Other species recorded include Water Horsetail, Marsh Speedwell (*Veronica scutellata*), Silverweed (*Potentilla anserina*), Marsh Ragwort (*Senecio aquaticus*), Cuckooflower (*Cardamine pratensis*), Marsh Cinquefoil (*Potentilla palustris*) and Marsh Pennywort (*Hydrocotyle vulgaris*). There are several large oligotrophic lakes on the site, including Lough Barra, Lough Veagh and Lough Altan. Aquatic plant species found include Water Lobelia (*Lobelia*

dortmanna), Shoreweed (*Littorella uniflora*) and Bulbous Rush (*Juncus bulbosus*). Lough Veagh also contains two quillwort species (*Isoetes lacustris* and *I. echinospora*), the latter of which is a locally-occurring species. Some of the smaller lakes also contain the scarce species Pipewort (*Eriocaulon aquaticum*).

Many scarce plants have been recorded from cliffs and gullies, mainly around Slieve Snaght and the Poisoned Glen. These include Brittle Bladder-fern (*Cystopteris fragilis*), Alpine Clubmoss (*Diphasiastrum alpinum*), Stiff Sedge (*Carex bigelowii*), Mountain Sorrel (*Oxyria digyna*) and Irish Spurge (*Euphorbia hyberna*). Purple Saxifrage (*Saxifraga oppositifolia*) and Alpine Saw-wort (*Saussurea alpina*) have also been recorded from this area, along with a more recent sighting of Killarney Fern (*Trichomanes speciosum*). These are all rare species which are listed in the Irish Red Data Book, the latter also being legally protected under the Flora (Protection) Order, 2022, and listed on Annex II of the E.U. Habitats Directive.

Three other rare Red Data Book plant species have been recorded within the site: Bird Cherry (*Prunus padus*), Small-white Orchid (*Pseudorchis albida*) and Heath Cudweed (*Omalotheca sylvatica*). The two last-named are legally protected under the Flora (Protection) Order, 2022.

The area is also of considerable zoological value. Mammal interest includes the largest herd of Red Deer in Ireland, along with Badgers, Otters, Irish Hares and Stoats.

Lough Veagh contains Arctic Char, a fish species that was once widespread but is now rare in most places. It is listed as vulnerable in the Irish Red Data Book. The Owencarrow and Lackagh River systems support a good population of Atlantic Salmon, a species listed on Annex II of the E.U. Habitats Directive. Brown Trout also occur. Common Lizard has been recorded from the site. The site supports populations of Freshwater Pearl Mussel, a rare species that is listed on Annex II of the E.U. Habitats Directive.

A number of important bird species are represented at this site, with several which are listed in the Red Data Book, and a number listed on Annex I of the E.U. Birds Directive. Those which breed within the area include Red-throated Diver, Golden Plover, Merlin and Peregrine. A small flock of Greenland White-fronted Goose, also listed on Annex I of the E.U. Birds Directive, feed on some of the bogs in winter. The Red Data Book species Goosander and Wood Warbler both breed on the site. Generally, the woodlands are favoured by Siskin, Tree Creepers and Redstarts, while Meadow Pipits, Red Grouse, Ravens, Snipe and Dunlin are among the birds found on the moorland.

One of the major land uses at this site is conservation management. The site contains the whole of the Glenveagh National Park along with two Statutory Nature Reserves, Lough Barra Bog and Meenachullion Bog. Grazing by sheep and deer is common and in a few places the bogs have suffered from over-grazing and poaching. Grazing has also prevented woodland regeneration. Annual deer culls take place to control numbers and the main herd is kept within the confines of the National Park by a 45 km-long deer fence. Invasion by Rhododendron has been a particular problem within the National Park, where it has choked areas of woodland and covered adjacent hillsides. A removal programme is in progress and the threat from this species has been considerably reduced. Peat cutting, both by hand and machine, has caused damage to some bogs in the site. Turbary and afforestation are the main threats to this habitat, with erosion and burning also having an impact.

The site is of great scientific and conservation value, particularly for the large areas of excellent, little-damaged blanket bog it contains, including the largest intact area of blanket bog in north-west Ireland. It also includes good quality examples of seminatural deciduous woodland, heath, oligotrophic lakes and inland cliffs. The importance of the site is increased by the presence of a wide range of plant and animal species, including many rare or threatened Red Data Book species, and several that are listed on Annex II of the E.U. Habitats Directive or Annex I of the E.U. Birds Directive.

1.6 River Foyle and Tributaries SAC

The description of the River Foyle and Tributaries SAC is provided here is based on the Site Conservation Objectives (NIEA, 2024).

Qualifying Interests of the Site

[3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

[1106] Atlantic Salmon (*Salmo salar*)

[1355] Otter (*Lutra lutra*)

Site Overview

The SAC includes the River Foyle and its tributaries i.e. that part of the River Finn which lies within Northern Ireland, the River Mourne and its tributary the River Strule (up to its confluence with the Owenkillew River) and the River Derg, along with two of its sub-tributaries, the Mourne Beg River and the Glendergan River. In total, the area encompasses 120km of watercourse and is notable for the physical diversity and naturalness of the banks and channels, especially in the upper reaches, and the richness and naturalness of its plant and animal communities. Of particular importance is the population of Atlantic Salmon, which is one of the largest in Europe. Research has indicated that each sub-catchment within the system supports genetically distinct populations.

The area is also important as a river habitat. In their upper catchments, the rivers are all fast-flowing spate rivers with dynamic flow regimes characterised by sequences of rapid, riffle and run. Although the banks may have been modified in the past, the channels are natural and composed of large cobble substrate with scattered boulders and sandy marginal deposits, while cobble side and point bars and discrete sand deposits are common features. At the top end of the River Derg and its two tributaries, the aquatic flora reflect the highly acidic character of the water, with mosses and liverworts dominant. Beds of Stream Water Crowfoot *Ranunculus penicillatus* var. *penicillatus* occur where the flow is less dynamic.

The River Foyle below Strabane is slow-flowing and is influenced by a tidal regime, rising and falling with the tidal cycle. Aquatic plants in the channel are extremely limited, particularly in the more saline areas; here, fucoids make up the main component.

Otter is found throughout the system. A small population of the now rare Freshwater Pearl Mussel (*Margaritifera margaritifera*) was still present in the Mourne River in the mid-nineties.

1.7 Donegal Bay SPA

The description of the Donegal Bay SPA is provided here is based on the Conservation Objectives (NPWS, 2012c) and Site Synopsis (NPWS, 2010e) the for the site.

Qualifying Interests of the Site

[A003] Great Norther Diver (*Gavia immer*)

[A046] Light-bellied Brent Goose (*Branta bernicla hrota*)

[A065] Common Scoter (*Melanitta nigra*)

[A144] Sanderling (*Calidris alba*)

[A999] Wetlands and Waterbirds

Site Overview

Donegal Bay SPA is a very large, marine-dominated, site. It extends from Doorin Point to the west of Donegal Town, to Tullaghan Point in County Leitrim, a distance of approximately 15km along its north-east/south-west axis. It varies in width from about 3km to over 8km. The site includes the estuary of the River Eske, which flows through Donegal Town, and the estuary of the River Erne, which flows through Ballyshannon. Much of the shoreline is rocky or stony, with well-developed littoral reefs in places. There are also extensive stretches of sandy beaches, especially from the Murvagh peninsula southwards to Rossnowlagh and at the outer part of the estuary of the River Erne. Shingle or cobble beaches are also represented. There are extensive areas of intertidal flats associated with the estuary of the River Eske, reflecting the very sheltered conditions in this part of the bay. These have been shown to be biotope

rich, and supporting a range of macro-invertebrates, including polychaete worms (*Hediste diversicolor, Arenicola marina* and *Nephtys hombergii*) and bivalves (*Scrobicularia plana, Cerastoderma edule* and *Macoma balthica*).

Elsewhere, a narrow fringe of intertidal flats is exposed at low tides. Salt marshes are found in the sheltered conditions of the innermost part of the bay. A number of small, grassy, islands occur in the innermost part of the bay. The waters of the shallow bay overlie mostly sandy substrates, though reefs occur in places.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Northern Diver, Light-bellied Brent Goose, Common Scoter and Sanderling. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Donegal Bay supports an excellent diversity of wintering waterbirds, especially species associated with shallow bays (all figures are mean peak counts for four of the five winters between 1995/96 and 1999/2000). It has an internationally important wintering population of Great Northern Diver (138) and is consistently one of the top sites in the country for this species. It also has one of the few regular populations of Black-throated Diver in the country (11), and Red-throated Diver (21). It supports an internationally important population of Light-bellied Brent Goose (207) and nationally important populations of Common Scoter (860) and Sanderling (68). A range of other species associated with estuarine and shoreline habitats occurs at the site, including Cormorant (Phalacrocorax carbo) (29), Shelduck (Tadorna tadorna) (24), Wigeon (Mareca penelope) (224), Mallard (Anas platyrhynchos) (100), Long-tailed Duck (Clangula hyemalis) (14), Red-breasted Merganser (Mergus serrator) (38), Oystercatcher (581), Ringed Plover (99), Golden Plover (Pluvialis apricaria) (103), Lapwing (Vanellus vanellus) (122), Dunlin (Calidris alpina) (269), Bar-tailed Godwit (Limosa lapponica) (49), Curlew (359), Redshank (Tringa tetanus) (93), Greenshank (Tringa nebularia) (12) and Turnstone (Arenaria interpres) (53). Gulls are regular in autumn and winter, especially Black-headed Gull (Larus ridibundus) (239) and Common Gull (Larus canus) (297).

This large coastal site is of high ornithological importance, with two species having populations of international importance (Great Northern Diver and Light-bellied Brent Goose) and a further two species having populations of national importance (Common Scoter and Sanderling). Also of note is that five of the regularly occurring species are listed on Annex I of the E.U. Birds Directive, i.e. Great Northern Diver, Black-throated Diver, Red-throated Diver, Golden Plover and Bar-tailed Godwit.

1.8 Lough Swilly SPA

The description of the Lough Swilly SPA is provided here is based on the Conservation Objectives (NPWS, 2011) and Site Synopsis (NPWS, 2014c) the for the site.

Qualifying Interests of the Site

[A005] Great Crested Grebe (*Podiceps cristatus*)

[A028] Grey Heron (*Ardea cinerea*)

[A038] Whooper Swan (*Cygnus cygnus*)

[A043] Greylag Goose (*Anser anser*)

[A048] Shelduck (*Tadorna tadorna*)

[A052] Teal (*Anas crecca*)

[A053] Mallard (*Anas platyrhynchos*)

[A062] Scaup (*Aythya marila*)

[A067] Goldeneye (*Bucephala clangula*)

[A069] Red-breasted Merganser (*Mergus serrator*)

[A125] Coot (*Fulica atra*)

[A130] Oystercatcher (*Haematopus ostralegus*)

[A143] Knot (Calidris canutus)

[A149] Dunlin (*Alpina alpina*)

[A160] Curlew (*Numenius arquata*)

[A162] Redshank (*Tringa totanus*)

[A164] Greenshank (Tringa nebularia)

[A179] Black-headed Gull (*Chroicocephalus ridibundus*)

[A182] Common Gull (*Larus canus*)

[A193] Common Tern (*Sterna hirundo*)

[A395] Greenland White-fronted Goose (*Anser albifrons flavirostris*)

[A855] Wigeon (*Mareca penelope*)

[A857] Shoveler (*Spatula clypeata*)

[A863] Sandwich Tern (*Thalasseus sandvicensis*)

[A999] Wetlands and Waterbirds

Site Overview

Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks, situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2km north of Rathmullan) on the west side and to c. 2km south of Buncrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly between Farsetmore and Inch Levels – these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly, the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide - both estuaries and sand/mud flats are listed on Annex I of the E.U. Habitats Directive. Other habitats represented in the site are salt marshes, lagoons (at Inch Lough and Blanket Nook), rivers and streams, sand and shingle beaches, lowland wet and dry grasslands, drainage ditches, reedbeds and scrub. Inch Lough, whilst artificial in origin, is one of the largest and best examples of a shallow, low salinity lagoon in the country; it supports what is probably the largest population in the country of the Red-listed charophyte *Chara canescens*. A small sandy island, used by nesting terns, swans and gulls, occurs in the southern part of the lagoon.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Crested Grebe, Grey Heron, Whooper Swan, Greenland White-fronted Goose, Greylag Goose, Shelduck, Wigeon, Teal, Mallard, Shoveler, Scaup, Goldeneye, Red-breasted Merganser, Coot, Oystercatcher, Knot, Dunlin, Curlew, Redshank, Greenshank, Black-headed Gull, Common Gull, Sandwich Tern and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site supports an excellent diversity of waterfowl species in autumn and winter as well as breeding terns, gulls and ducks. The shallow waters provide suitable habitat for grebes and diving duck, while the intertidal flats are used by an abundance of wildfowl and waders. At high tide, the duck and wader species roost on the salt marshes and shorelines, with some species moving to the adjacent pasture and arable fields. The combination within this site of extensive feeding areas and safe resting and roosting sites makes this one of the most important wetlands in the north-west of the country for wintering waterfowl.

Lough Swilly SPA supports internationally important numbers of Whooper Swan (1,673 - mean peak for the five winters 1995/96-1999/2000), Greenland White- fronted Goose (847 for the

Lough Swilly flock - mean peak for the five winters 1994/95-1998/99) and Greylag Goose (1,218 - mean peak for the five winters 1995/96-1999/2000). The main areas of the site used by these species are at Big Isle, Farsetmore, Blanket Nook, Ballylawn and Inch Levels. The flock sizes for Whooper Swan and Greylag Goose are the highest in the country. Considerably higher numbers of Whooper Swan (peak of 1,946) have been recorded, especially early in the season, as this is the area where the swans make their Irish landfall in autumn on their return from breeding grounds in Iceland. Both Greenland White-fronted Goose and Whooper Swan are listed on Annex I of the E.U. Birds Directive.

The site includes nationally important populations of 18 wintering waterbird species as follows (all figures are mean peaks for the five winters 1995/96-1999/00): Great Crested Grebe (284), Grey Heron (57), Shelduck (772), Wigeon (1,580), Teal (1,581), Mallard (1,169), Shoveler (60), Scaup (103), Goldeneye (170), Red-breasted Merganser (127), Coot (514), Oystercatcher (1,595), Knot (303), Dunlin (7,285), Curlew (1,720), Redshank (1,404), Greenshank (48) and Common Gull (1,523). Other species which occur include Light-bellied Brent Goose (152), Pochard (102), Golden Plover (749), Lapwing (1,408), Ringed Plover (81), Grey Plover (15), Bar-tailed Godwit (139) and Turnstone (73). The site is an important area for Great Northern Diver (19) and the rare Slavonian Grebe (11). The rare winter visitor, Pink-footed Goose, also occurs (15). Nationally important numbers of Mute Swan (265) also use the site.

The small island in Inch Lough supports the largest tern colony in the north-west, with nationally important populations of Sandwich Tern (258 pairs in 2001) and Common Tern (89 pairs in 2001) occurring. These two species are listed on Annex I of the E.U. Birds Directive. There is also a nationally important colony of Black-headed Gull (800 pairs in 2001), which represents one of the largest populations in the country.

Several species of duck breed on Inch Lough, most notably Tufted Duck, with an estimate of between 100 and 200 pairs occurring in 1997. Mute Swan breeds in important numbers and a concentration of 50 pairs on the small island in Inch Lough is most unusual as this species seldom nests in colonies. Whooper Swan, a very rare breeding species in Ireland, has been recorded nesting at Inch Lough. Lapwing breeds in regionally important numbers either on wet grass fields within the levels or around the edge of the lagoon. Coot also breed (estimate of 50 pairs in the 1990s).

Lough Swilly SPA is of major ornithological importance for wintering waterbirds, with three species occurring in numbers of international importance and 18 occurring regularly in numbers of national importance. The site is regularly used by more than 20,000 waterfowl and as such is of international importance. Additionally, it holds nationally important breeding populations of three species, i.e. Sandwich Tern, Common Tern and Black-headed Gull. The site is used by a good range of species that are listed on Annex I of the E.U. Birds Directive. Part of Lough Swilly SPA is a Wildfowl Sanctuary.

1.9 Lough Nillan Bog SPA

The description of the Lough Nillan Bog SPA is provided here is based on the Conservation Objectives (NPWS, 2025c) and Site Synopsis (NPWS, 2010c) the for the site.

Qualifying Interests of the Site

[A098] Merlin (*Falco columbarius*)

[A140] Golden Plover (*Pluvialis apricaria*)

[A395] Greenland White-fronted Goose (*Anser albifrons flavirostris*)

[A466] Dunlin (*Calidris alpina schinzii*)

Site Overview

Lough Nillan Bog SPA covers a large area of the hills immediately south of Glenties in Co. Donegal. The site extends from Owenea Lough in the west to the summit of Silver Hill in the east. Most of the area is underlain by dark, metamorphic siltstones but a few igneous intrusions also occur. The site comprises an extensive complex of blanket bog, wet heath,

lakes, rivers and streams, with the topography varying from level plains to steep hills. The bog has a range of micro-topographical features (e.g. hummocks, inter-connecting pools and flushes) and vegetation communities.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Greenland White-fronted Goose, Merlin, Golden Plover and Dunlin.

The site provides one of only two known bogland feeding areas used by the Sheskinmore Lough Greenland White-fronted Goose flock. Despite a decline in the size of this flock since the 1980s significant numbers of birds still visit the site (53 - peak count in 1999/2000).

The site supports an excellent range of bird species typical of peatland habitats. It has one of the largest known concentrations of breeding Golden Plover in the country – a survey in 2002 recorded 16 nesting pairs. Dunlin (subsp. *schinzii*) also breeds at the site (6 pairs recorded in 2002). Furthermore, the site provides valuable foraging habitat for up to five pairs of Merlin which are known to have territories in the vicinity. Other species utilising the site include Red-throated Diver and Red Grouse.

Lough Nillan Bog SPA is of high ornithological importance, with nationally important populations of breeding Merlin, Golden Plover and Dunlin (subsp. *schinzii*). Whilst the size of the Greenland White-fronted Goose flock has declined, the site is still of significance as it is one of the few traditional bog sites in the region that is still used by the species. The occurrence of Greenland White-fronted Goose, Merlin, Golden Plover, Dunlin (subsp. *schinzii*) and Red-throated Diver, which are listed on Annex I of the E.U. Birds Directive, is of particular note.

1.10 Pettigo Plateau Nature Reserve SPA

The description of the Pettigo Plateau Nature Reserve SPA is provided here is based on the Conservation Objectives (NPWS, 2025b) and Site Synopsis (NPWS, 2012b) the for the site.

Qualifying Interests of the Site

[A395] Greenland White-fronted Goose (*Anser albifrons flavirostris*)

Site Overview

Located to the west of Lough Derg in Co. Donegal, this site comprises an extensive complex of blanket bog, wet heath, lakes and pools in an area of low hills and broad basins. The bog is mostly undisturbed and has a good range of vegetation communities and microtopographical features, e.g. hummocks, inter-connecting pools and flushes. The principal lakes within the site are the Dunragh Loughs, Lough Barderg and the eastern half of Lough Golagh. The site is bounded by extensive conifer plantations to the east and south, with further bog to the north and west. The area is underlain by metamorphic gneiss and schist.

At the time this site was designated as a Special Protection Area (SPA) it was being utilised by a Greenland White-fronted Goose population. In the 1980s, the Greenland White-fronted Goose flock utilising this site largely deserted the bogs in favour of coastal grassland sites, e.g. Durnesh Lough SPA. Greenland White-fronted Goose still occurs within this site and it is one of the few places where this species continues to utilise peatland habitats. Greenland White-fronted Goose is regarded as a special conservation interest for this SPA.

Both Merlin and Hen Harrier have been recorded nesting in the vicinity of the site and may forage within it. Much of the site is designated a Statutory Nature Reserve and a Biogenetic Reserve, and is also listed under the Ramsar Convention.

1.11 Lough Derg (Donegal) SPA

The description of the Lough Derg (Donegal) SPA is provided here is based on the Conservation Objectives (NPWS, 2025a) and Site Synopsis (NPWS, 2012a) the for the site.

Qualifying Interests of the Site

[A183] Lesser Black-backed Gull (*Larus fuscus*)

[A184] Herring Gull (*Larus argentatus*)

Site Overview

Lough Derg is a large, oligotrophic lake situated north of Pettigo, Co. Donegal. The lake lies in a landscape of extensive blanket bogs and conifer plantations which make up its catchment. The underlying geology of the area is acid gneiss with some basic intrusions.

The lakeshore is mainly stony, and marginal vegetation is poorly developed due to the close proximity of the conifer plantations. The lake has a number of islands. The lakeshore has a sparse covering of Shoreweed (*Littorella uniflora*), Water Lobelia (*Lobelia dortmanna*) and the moss *Fontinalis antipyretica*. Broad-leaved Pondweed (*Potamogeton natans*) and Bulbous Rush (*Juncus bulbosus*) are found on the margins. There are areas of scrub along parts of the lake shores and on the ungrazed islands. These are composed of Alder (*Alnus glutinosa*), willow (*Salix* spp.), Rowan (*Sorbus aucuparia*) and birch (*Betula* sp.).

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Lesser Black-backed Gull and Herring Gull.

A large colony of nesting gulls was discovered on Inishgoosk Island in 1977. A survey in 1999 estimated a population of 500 pairs of Lesser Black-backed Gull, which is the largest colony in the country. An estimated 100 pairs of Herring Gull were also present, which is of national importance. Common Gull has bred here in the past.

The Pettigo Plateau Greenland White-fronted Goose flock formerly used Lough Derg as a feeding and/or roost site. Inishgoosk Island appeared to be the main feeding area used. In the 1980s, the bogs were largely deserted in favour of coastal grassland sites at Durnesh Lough and Brownhall. Wintering waterfowl are scarce on Lough Derg due to the oligotrophic character of the system but small numbers of Tufted Duck, Mallard and Goldeneye occur. A feral Greylag Goose flock is resident at the site.

Arctic Char (*Salvelinus alpinus*), a threatened Red Data Book species, was recorded from the lake as recently 1990/91.

Lough Derg SPA is of national importance for both Lesser Black-backed Gull and Herring Gull. In the past it was used by Greenland White-fronted Goose, a species that is listed on Annex I of the E.U. Birds Directive