Kildare Meath Grid Upgrade

Appropriate Assessment Screening Report

April 2023

EirGrid

Kildare to Meath

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1. Introduction

1.1 Background

This Appropriate Assessment (AA) Screening Report is in relation to the Kildare Meath Grid Upgrade Project, Capital Project 0966 (CP 0966) (the "Proposed Development"). This project involves improvements to the transfer of electricity to the east of Ireland and its distribution within the network in Meath, Kildare, and Dublin. The project will help meet the growing demand for electricity in the east which is due to an increase in economic activity and the planned construction of a number of data centres in the country. The Proposed Development aims to strengthen the transmission network between Dunstown substation in Kildare and Woodland substation in Meath.

Jacobs was engaged by EirGrid to prepare the AA Screening Report for the cable route which is provided to inform the AA Screening determination by An Bord Pleanála, the competent authority for this application. The Proposed Development comprises the installation of a 400 kV underground cable (UGC) between Dunstown substation in the south and Woodland substation in the north. A summary description of the Proposed Development is shown in Section 4.1. The route alignment is shown in Image 1.

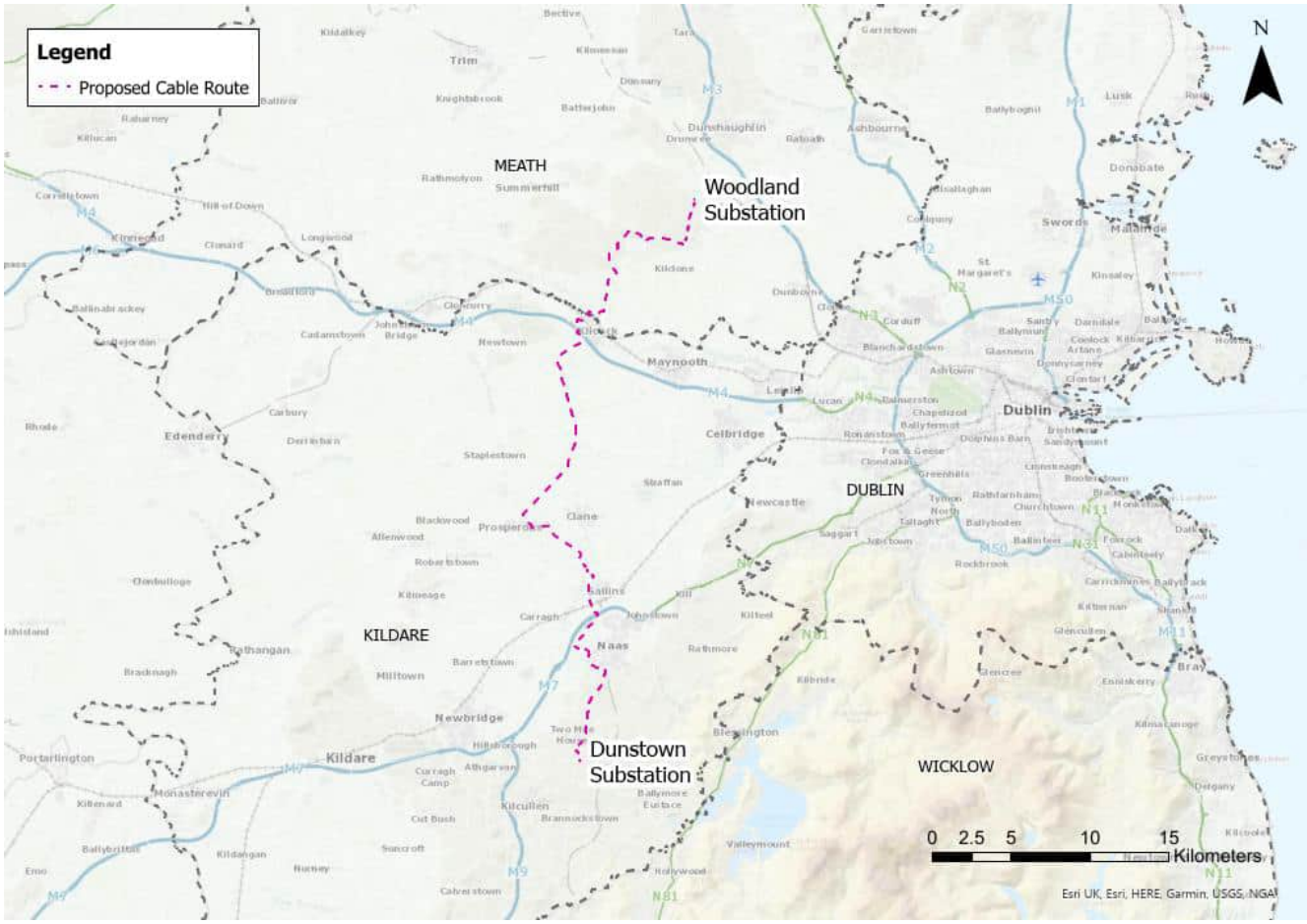

Image 1: Proposed cable route alignment

1.2 Legislative context for Appropriate Assessment

The EU Habitats Directive 92/43/EEC (the Habitats Directive) and the EU Birds Directive 2009/147/ES (the Birds Directive) set out a system of protection for habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as the Natura 2000 network (hereafter referred to as

European sites[1]). European sites comprise Special Areas of Conservation (SACs[2]) and Special Protection Areas (SPAs).

Both the Habitats and Birds Directive have been transposed into Irish law by the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011) as amended. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites.

Article 6(3) establishes the requirement for AA:

"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 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."

Article 6(4) states:

"If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted."

The Planning and Development Act (2000) states the following:

177U (1) A screening for appropriate F930 [assessment of a draft Land use plan or application for consent for proposed development] shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

177U (4) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

177U (5) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

1.3 Stages in Appropriate Assessment

The purpose of Screening is to identify whether activities associated with plans or projects, either acting individually or in-combination with other plans or projects will result in likely significant effects (LSEs) on any European sites. All potential effects from activities associated with the plans or projects and the Conservation Objectives of European sites must be considered. This includes potential effects on mobile species, including birds, mammals, invertebrates and migratory fish.

1 The term Natura 2000 network was replaced by 'European site' under the EU (Environmental Impact Assessment and Habitats) Regulations 2011 S.I. No. 473 of 2011.

2 Candidate SAC (cSAC) are afforded the same protection as SACs. The process of designating cSACs as SACs by means of Statutory instrument is ongoing. In this report, the term SAC is used hereafter to refer both cSACs and SACs.

If the potential of LSEs occurring cannot be excluded on the basis of objective information, the plan or project is taken forward to the next stage of the process, Appropriate Assessment (AA). At Screening, the burden of evidence is to show, on the basis of objective information, and beyond reasonable scientific doubt, that the proposed plan or project will have no LSEs on a European site. If the effect is significant, or its significance is not known, it would trigger the need for AA of its implications for the site in view of the site's conservation objectives. An overview of the two AA process is outlined below:

- **Screening:** Screening determines whether an AA is required by determining if the project or plan is likely to have a significant effect on any European site(s) either individually or in-combination with other plans or projects, in light of the site's conservation objectives.
- **Appropriate Assessment**: If the screening has determined that AA is required, the competent authority then considers whether the plan or project will adversely affect the integrity of a European site(s) either individually or in-combination with other plans and projects in view of the site's conservation objectives. Where potential adverse effects on site integrity (AESI) are identified, appropriate mitigation measures are proposed to avoid adverse effects. For projects, the AA process is documented within a Natura Impact Statement (NIS). The developer may prepare an Natura Impact Statement (NIS) to inform the competent authority's AA process.

Following AA, including mitigation proposals, if AESI remain, or uncertainty remains and the project/plan is to be progressed, an Assessment of Alternative Solutions is required under the provisions of Article 6(4) of the Habitats Directive. This process examines the alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European site. If no alternatives exist, or all alternatives would result in adverse effects on the integrity of a European site, then either the process moves to the next stage, or the project is abandoned.

In the unlikely event where an Assessment of Alternative Solutions fails to identify any suitable alternatives, then for a project or plan to be progressed it must meet the requirements of Imperative Reasons of Overriding Public Interest IROPI. In this case the provisions of Article 6(3) cannot be met (i.e. an adverse effect on site integrity) and therefore, the provisions of Article 6(4) are used. If, in light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed, compensatory measures are implemented to maintain the coherence of the European site network despite adverse effects to the integrity of the site(s).

The process is set out in Image 2, below.

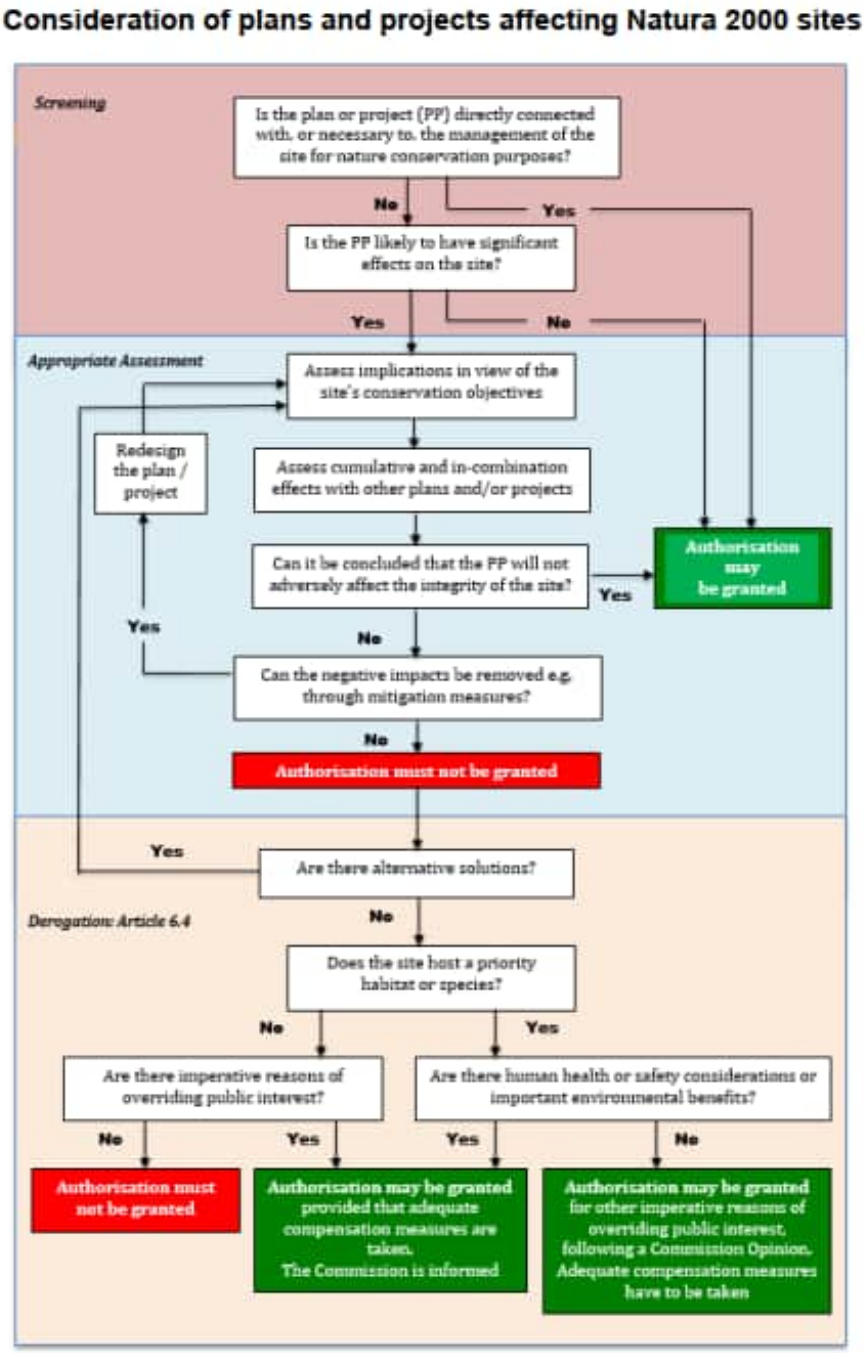

Image 2: Flow chart of Article 6 (3) and (4) procedure (European Commission, 2018).

1.4 Purpose of this report

In the context of Article 6(3), the competent authority, (ABP) must carry out Screening for AA of the Proposed Development to assess whether, on the basis of objective scientific information and in view of best scientific knowledge, the Proposed Development either individually or in-combination with other plans or projects, is likely to have a significant effect on the conservation objectives of a European site(s). This report presents the information required for the competent authority to undertake Screening for AA for the Proposed Development.

1.5 Authors' qualifications and expertise

This report was prepared by Harry Jones, then updated by Duncan Smith and check/reviewed by Dr Susie Coyle.

Harry is a Senior Environmental Consultant and an Associate Member of the Chartered Institute of Ecology and Environmental Management (ACIEEM). Harry has a Master's degree (MAI) in Civil, Structural and Environmental Engineering from Trinity College Dublin, as well as a Postgraduate Certificate (PGCert) in Ecological Surveying from Oxford University. He has more than five years' professional experience working predominantly in environmental coordination and ecological surveying. He has worked on a variety of projects of all sizes across various disciplines including water, wastewater, transportation, and infrastructure.

Duncan Smith is a Principal Ecologist and Chartered Environmentalist. He has a BSc (Hons) in Zoology from the University of Leeds, an MSc in Environmental Technology with Ecological Management from Imperial College and as MSc in Marine Environmental Protection from Bangor University. He has twenty-four years professional ecological experience specialising in botanical surveying, habitat management and evaluation for Ecological Impact Assessment. During his career he has worked in the private, public, and voluntary sectors, including fifteen years in the private sector, seven years for UK Statutory Nature Conservation Bodies in England and Wales and two years in the voluntary sector.

The report was checked and reviewed by an Associate Director of Ecology, who also led the aquatic surveys for the Proposed Development. Dr Susie Coyle holds a BSc (Hons) in Aquatic Bioscience and a PhD in fish biodiversity from the University of Glasgow. She is a Chartered full Member of the Royal Society of Biology (MRSB), a full Member of CIEEM and a Member of the Institute of Fisheries Management (MIFI). Susie has coordinated Jacobs' ecologists both in Ireland and in the UK and has experience of multiple ecological survey techniques and associate reporting. She has over fifteen years of consultancy experience in aquatic and terrestrial ecology with over twenty years' experience of field surveys and environmental sampling techniques. One of Susie's main roles is the check and review of reports including Appropriate Assessment Screening reports and Natura Impact Statements.

Susie has over 20 years' experience of field surveys and environmental sampling techniques, including electric fishing and gill/seine/drag/hand netting, kick sampling and water chemistry analysis. She is a certified team lead for electric fishing through the Scottish Fisheries Co-Ordination Centre and has worked for the Lomond Fisheries Trust undertaking targeted electric fishing surveys for salmonids. She has held several pan-Scotland and England freshwater pearl mussel licences.

2. Methodology

2.1 Desk review

The following key resources were analysed to inform the baseline description of the sites and surrounding environment:

- Aerial imagery (Bing, https://www.bing.com/maps; ESRI).
- Environmental Protection Agency (EPA) rivers and water quality data Water Framework Directive (WFD) status) https://gis.epa.ie/EPAMaps/ (accessed November 2022).
- Mapping of European site boundaries available online at www.npws.ie.
- National Parks and Wildlife Service (2019a). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.
- National Parks and Wildlife Service (2019b). The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.
- Online data available on Natura 2000 sites, including Conservation Objectives, as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including: the Natura 2000 network Data Form; Site Synopsis; Generic Conservation Objective data.
- Other opensource information available online regarding fisheries (e.g., www.salmonireland.com and www.fishingireland.info).
- Protected and invasive species data from the National Biodiversity Data Centre (NBDC) online at http://www.biodiversityireland.ie/ (accessed November 2022).

2.2 Site visits

Site visits were undertaken by experienced Jacobs's ecologists multiple times in 2021 and 2022 beginning on 11/10/2021. The study area extent varied across the Proposed Development according to the infrastructure associated with the scheme and its likely ecological impacts. Surveys included wintering and breeding birds, mammals, fish, invertebrate and habitats. The study area includes all areas of works required for the Proposed Development. All surveys were undertaken within the relevant optimal surveying period (National Roads Authority, 2009). Habitats within the study area were assessed for their potential to support rare or protected species and/ or qualifying interests (Annex I habitats or Annex II species) associated with European sites. The assessment of protected species and habitats and/ or invasive species was undertaken in line with the following guidelines and informed this Screening for AA:

- A Guide to Habitats in Ireland. The Heritage Council (Fossitt, 2000).
- Article 17 reports (NPWS, 2019a, 2019b, and 2019c).
- CIEEM Good Practice Guidance for Habitats and Species (CIEEM, 2021).
- CIEEM Guidelines for Preliminary Ecological Appraisal. Second Edition (CIEEM, 2017).
- CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018).
- Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (NRA, 2010).
- Transport Infrastructure Ireland (TII) The Management of Invasive Alien Plant Species on National Roads - Standard (TII, 2020a).
- Transport Infrastructure Ireland (TII) The Management of Invasive Alien Plant Species on National Roads - Technical Guidance (TII, 2020b).

Ecology surveys and their dates completed are shown in Table 2.1, below.

Table 2.1 showing all ecological surveys carried out for the Kildare to Meath Proposed Development.

Species/Habitat	Survey methodology/target species	Survey date(s)
Habitat Survey	Habitat classification (Fossitt, IVC etc.)	June 2022 – October 2022 (Week commencing: 06.06.2022, 27.06.2022, 11.07.2022, 18.07.2022, 22.08.2022, 05.09.2022, 26.09.2022, 12.10.2022)
Habitat Suitability Assessment	Reptile and amphibian	December 2021 –June 2022 (week commencing 13.12.21; 27.6.22)
	Terrestrial invertebrate (Marsh fritillary)	December 2021 – June 2022 week commencing 13.12.21; 27.6.22
	Fish and white-clawed crayfish,	June 2022 – October 2022 (Week commencing: 06.06.2022, 27.06.2022, 11.07.2022, 18.07.2022, 22.08.2022, 05.09.2022, 26.09.2022, 12.10.2022)
Mammal Survey	Mammal species other than bats i.e. otter, badger, red squirrel etc.	October 2021 – April 2022
Birds	Winter Bird Surveys	October 2021 – April 2022 (Week commencing: 11.10.2021, 01.11.2021, 06.12.2021, 10.01.2022, 07.02.2022, 07.03.2022, 11.04.2022)
	Hen harrier winter roost surveys	October 2021 – March 2022 (Week commencing 11.10.2021, 18.10.2021, 01.11.2021, 06.12.2021, 10.01.2022, 07.02.2022, 07.03.2022)
	Breeding bird surveys	March – May 2022 (Week commencing: 28.03.2022, 25.04.2022, 23.05.2022, 30.05.2022)
Bats	Identification of potential roost features (PRFs) in trees/buildings	February 2022 – September 2022 (week commencing 21.2.22; 21.3.22; 6.6.22; 15.7.22; 22.8.22; 5.9.22
	Static detector surveys	May 2022 – August 2022 (Week commencing 16.05.2022, 23.05.2022, 30.05.202, 06.06.2022, 27.06.2022, 04.07.2022, 18.07.2022, 25.07.2022, 01.08.2022, 08.08.2022)
	Emergence/re-entry surveys (structures and trees)	May 2022 – July 2022 (Week commencing 16.05.2022, 23.05.2022, 30.05.2022, 06.06.2022, 17.06.2022, 18.07.2022, 25.07.2022)
Fish	eDNA Sampling for Atlantic salmon and European eel	August 2022 – September 2022 (Week commencing: 08.08.2022, 19.09.2022)

Invertebrates	eDNA Sampling for white-clawed crayfish	August 2022 – September 2022 (Week commencing: 08.08.2022, 19.09.2022)
Smooth newt	eDNA Sampling for smooth newt at WB19 and WB05	August 2022 – October 2022 (Week commencing: 08.08.2022, 19.09.2022, 10.10.2022)

2.3 Guidance documents

This Screening for AA was undertaken in accordance with to the following guidance:

- Appropriate Assessment of Plans and Proposed Schemes in Ireland. Guidance for Planning Authorities (Department of Environment, Heritage and Local Government (DoEHLG), 2010).
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC, 2021a).
- Communication from the Commission on the Precautionary Principle (EC, 2000).
- 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 Commission (EC, 2007).
- Guidance document on the strict protection of animal species of Community interest under the Habitats Directive (EC, 2021b).
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018).
- Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01.

2.4 Screening methodology

The guidance documents outlined above set out the process for carrying out AA, the first stage of which is referred to as Screening. Steps required for Screening include the following.

- Determination of whether a project or plan is directly connected with or necessary to the conservation management of any European sites[3].
- Description of the details of the project/ plan (including the site characteristics/ plan area).
- Description of the characteristics of European sites that might be affected (i.e., identification of Qualifying Interest (QI which refers to the habitats and/or non-bird species for which an SAC is designated), and Special Conservation Interests which refers to the habitats and bird species for which an SPA is designated))and conservation objectives (CO) that could be affected as a result of progressing the project/ plan.
- Assessment of LSEs on relevant European sites in view of the sites' CO, either individually or in-combination with other plans and projects.
- Presentation of a screening assessment which should determine if the project/ plan individually or in-combination with other plans and projects could undermine the CO of the site(s) and give rise to LSEs. The assessment of LSEs must be undertaken in the absence of mitigation measures.

2.4.1 Guiding principles and case law

The most recent Irish guidance in relation to AA was published by the Office of the Public Regulator (OPR Practice Note PN01, 2021). This document provides information and guidance on the Irish planning application process

3 The Proposed Development is not directly connected with or necessary to the conservation management of any European sites.

and how to undertake a Screening for AA. Several legal cases have been brought to both the national and European courts in relation to the AA process. Therefore, relevant case law, European Court of Justice (ECJ) rulings and EC publications have also been considered in the preparation of this AA Screening.

2.4.2 Source-pathway-receptor model and Zone of Influence

When assessing the Zone of Influence (ZoI) the 'source-pathway-receptor' model is applied taking consideration of all potential impact pathways connecting elements of the project or plan to European sites in view of their conservation objectives.

The source-pathway-receptor conceptual model is a standard tool in environmental assessment. For an effect to occur, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism means that there is no likelihood for the effect to occur (e.g., no potential for LSEs). Potential impact pathways that may arise from a development may include but are not limited to:

- Removal or loss of QI/ Special Conservation Interest (SCI)[4] habitat.
- Removal or loss of habitat with which QI species are associated.
- Mortality of QI species.
- Physical disturbance to QI species.
- Risk of pollution/ reduction in water quality impacting on QI species.

The 'source- pathway-receptor' model is focused solely on the QIs for which European sites are designated as shown on the latest conservation objectives from the NPWS website[5].

The ZoI is the area over which effects could occur to ecological features from a project. The determination of a ZoI for a project should be identified on a case-by-case basis as there may be an effect on European sites that are at a distance from the works. For example, where there is a hydrological link between the development site and a European site.

Considerations key in determining the potential ZoI include:

- Ecological features within and in proximity to the Proposed Development.
- Migratory/ mobile species of the area.
- Construction/ operational activities that may cause a significant effect.
- Linkages to European sites or sensitive habitats connected to those sites.

4 The specific named bird species for which a SPA is selected is called the 'Special Conservation Interests' (SCIs). However, in practice, the common terminology of Qualifying Interests applies also to SCI (and is used throughout this report for simplicity).
5 www.npws.ie/protected-sites/conservation-management-planning/conservation-objectives.

3. Baseline Characterisation

3.1.1 Overview of the baseline environment

The results of the desk-based review and site visits are presented in the following sections.

The study area comprised predominantly agricultural grasslands with some arable fields, built surfaces, and hedgerows and treelines between Dunstown substation in the townland of Dunnstown in Co. Kildare and Woodland substation in the townland of Woodland in Co. Meath.

3.1.2 European designated sites

European designated sites potentially within the ZoI the Proposed Development are shown on Figure 1 (321084AH-JAC-ZZ-XX-DR-K-3000), Appendix A and in Table 3.1. Sites were included based on the 'source-pathway-receptor' model (Section 4.3) and were near enough to the Proposed Development to either have hydrological connectivity or to have mobile QI requiring further investigation into their potential to be impacted by the Proposed Development (birds and otters).

- Ballynafagh Bog SAC (Site code 000391) 1.64km west;
- Ballynafagh Lake SAC (Site code 001387) 2.75km west;
- Mouds Bog SAC (Site code 002331) 6.21km west;
- Rye Water Valley/ Carton SAC (Site code 001398) approximately 7km east;
- Poulaphouca Reservoir SPA (Site code 004063) 7.08km east;
- Pollardstown Fen SAC (Site code 000396) 8.87km west;
- River Boyne and River Blackwater SAC (Site code 002299) 14.80km west; and
- River Boyne and River Blackwater SPA (Site code 004232) 18.77km west.

These are detailed further in Section 4.3 and in Table 3.1.

Table 3.1 European Designated Sites potentially within the projects ZoI and the QI habitats and species for which these sites are designated.

Site Name	Site Code	QI Habitats (Annex I Habitats)	QI Species
Ballynafagh Bog SAC	000391	[7110] Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7150] Depressions on peat substrates of the Rhynchosporion	N/A
Ballynafagh Lake SAC	001387	[7230] Alkaline fens	[1016] Desmoulins Whorl Snail (*Vertigo moulinsiana*) [1065] Marsh Fritillary (*Euphydryas aurinia*)
Mouds Bog SAC	002331	[7110] Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration	N/A

Site Name	Site Code	QI Habitats (Annex I Habitats)	QI Species
		[7150] Depressions on peat substrates of the Rhynchosporion	
Rye Water Valley/Carton SAC	001398	[7220] Petrifying springs with tufa formation (*Cratoneurion*)*	[1014] Narrow-mouthed Whorl Snail (*Vertigo angustior*) [1016] Desmoulins Whorl Snail (*Vertigo moulinsiana*)
Poulaphouca Reservoir SPA	004063	N/A	[A043] Greylag Goose (*Anser anser*) [A183] Lesser Black-backed Gull (*Larus fuscus*)
Pollardstown Fen SAC	000396	[7210] Calcareous fens with Cladium mariscus and species of the *Caricion davallianae** [7220] Petrifying springs with tufa formation (*Cratoneurion*)* [7230] Alkaline fens	[1013] Geyer's Whorl Snail (*Vertigo geyeri*) [1014] Narrow-mouthed Whorl Snail (*Vertigo angustior*) [1016] Desmoulins Whorl Snail (*Vertigo moulinsiana*)
River Boyne and River Blackwater SAC	002299	[7230] Alkaline fens [91E0] Alluvial Forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)	[1099] River Lamprey (*Lampetra fluviatilis*) [1106] Atlantic Salmon (*Salmo salar*) [1355] Otter (*Lutra lutra*)
River Boyne and River Blackwater SPA	004232	N/A	[A229] Kingfisher (*Alcedo atthis*)

3.1.3 Species (including Annex I and II)

A search of the NBDC returned two records of QI species, as listed in Table 3.1 above, within approximately 2km of the study area as follows:

- Otter (*Lutra lutra*).
- Marsh fritillary (*Euphydryas aurinia*).

A potential otter holt was recorded along the River Liffey during the field survey on 09/06/2022 at approximately ITM E687929, N724445. This is located approximately 28km from the River Boyne and River Blackwater SAC (the nearest SAC for which otter is a qualifying feature) An otter slide was recorded along the River Liffey at approximately ITM E687940, N724511, approximately 66m from the potential otter holt. This is also located 28km for the River Boyne and the River Blackwater SAC.

Marsh fritillary was not recorded during the site visits, although its main food source devil's bit scabious (*Succisa pratensis*) was recorded at one location on Harristown Common (Grid Reference N 87879 12976), which lies c462m from the Proposed Development at its nearest location and 17.0km from Ballynafagh Lake SAC at its nearest location. The location of the devil's bit scabious on Harristown Common is well beyond the footprint of the

Proposed Development and separated from it by an amenity sports pitch. The nearest SAC to the Proposed Development which has marsh fritillary as a QI feature is Ballynafagh Lake SAC, which lies c2.75km from the Proposed Development at its nearest location.

In consideration of Greylag goose and lesser black-backed gull, the bird species listed as Special Conservation Interest for this SPA, Jacobs' winter bird survey (Jacobs, 2023) did not record any Greylag goose. Most records for wintering birds were from round several ponds or lakes, none of which will be impacted by the Proposed Development. The remaining records were of birds in flight or occasionally foraging in agricultural fields.

Jacobs' winter bird survey (Jacobs, 2023) recorded lesser black backed gull on two occasions foraging in fields, with a maximum count of 42 birds in a field of winter barley, approximately 224m to the west of the Proposed Development. The SPA citation states that the reservoir attracts roosting gulls during winter, including a large population of lesser-black backed gull, which in Ireland are rare away from the south coast.

Jacobs' winter birds survey recorded two Annex I bird species within 800m of the Proposed Development as follows:

Golden plover (*Pluvialis apricaria*) was recorded on one occasion within the study area (c70m to the east of the Proposed Development, south of Ballybrack feeding in recently sown winter barley. The nearest SPA designated for this SCI is North Bull Island SPA, 28.7km SW. The core foraging range of golden plover is 3km, with a maximum range of 11km (SNH, 2016). Due to the distance from the Proposed Development, the golden plover recorded during the survey are not considered likely to be part of the North Bull Island SPA population. In addition, there are many similar winter barley fields in the vicinity of the Proposed Development on which these birds can feed. It is considered that there will not be a significant effect on the SPAs golden plover population, and golden plover is not considered further.

Kingfisher (*Alcedo atthis*), the nearest SPA designated for the SCI is The River Boyne and River Blackwater SPA (18.7km NW). Kingfisher was recorded as part of the wintering bird survey on the River Liffey, but due to its distance away from the SPA, is not part of the population of the SPA.

3.1.4 Habitats (including Annex I)

Habitats within the study area (habitat codes as per Fossitt (2000)) are as follows. Note that no Annex I habitats associated with any of the SAC habitats listed in Table 3.1 above, were recorded during the survey:

- Hedgerow (WL1).
- Treeline (WL2)
- Improved agricultural grassland (GA1).
- Buildings and artificial surfaces (BL3).
- Arable crops (BC1).
- Scrub (WS1).
- Amenity grassland (GA2).
- Drainage ditches (FW4).
- (Mixed) broadleaved woodland (WD1).
- Mixed broadleaved/ conifer woodland (WD2).
- Depositing lowland river (FW2).
- Conifer plantation (WD4).
- Dry calcareous and neutral grassland (GS1)

3.1.5 Aquatic environment

The Waterbodies (WB) crossed by the Proposed Development are shown in Table 3.2, below. The locations of the WB crossing in relation to the proposed cable are shown in Figure 2 (321084AH-JAC-ZZ-XX-DR-K-3001 to 3034), Appendix B. The table shows all waterbodies in the study area and the river waterbody Water Framework Directive (WFD) status for the 2016-2021 monitoring period, and the risk rating where available (Environmental Project Agency (EPA) Maps website, 2023). The WFD status of WBs in the vicinity of the Proposed Development is shown in Figure 3 (321084AH-JAC-ZZ-XX-DR-K-3035), Appendix C.

Table 3.2. Waterbodies within the study area and Water Framework Directive status and risk rating of for WFD watercourses.

Waterbody number (WB)	Waterbody name	Waterbody location – Grid reference	EU Code	WFD status 2016-2021	Risk rating
WB01	Tributary of the Tolka 020	N 95028 46797	IE_EA_09T010600	Moderate	At risk
WB02	Dunboyne Stream_010	N 94782 46269	IE_EA_09D040500	Poor	At risk
WB03	Rye Water_030	N 93930 45180	IE_EA_09R010400	Poor	At risk
WB04	Jenkinstown stream_010	N 91730 45313	IE_EA_09J010950	Moderate	At risk
WB05	Pond	N 90677 45988	N/A	N/A	N/A
WB06	Jenkinstown Stream_010	N 90246 45483	IE_EA_09J010950	Moderate	At risk
WB07	Jenkinstown Stream_010	N 89775 43468	IE_EA_09J010950	Moderate	At risk
WB08	Jenkinstown Stream_010	N 89661 43153	IE_EA_09J010950	Moderate	At risk
WB09	Unassigned stream	N 89419 43023	N/A	N/A	N/A
WB10	Rye Water_020 (Brides Stream)	N 89243 42178	IE_EA_09R010300	Good	Under review
WB11	Newtownmoyaghy Stream tributary of Rye Water_020	N 89076 40939	N/A	N/A	N/A
WB12	Rye Water_020 (Padistown)	N 88410 40767	IE_EA_09R010300	Good	Under review
WB13	Rye Water_010	N 88065 40613	IE_EA_09R010100	Moderate	At risk

Waterbody number (WB)	Waterbody name	Waterbody location – Grid reference	EU Code	WFD status 2016-2021	Risk rating
WB14	Royal Canal	N 87874 40210	IE_09_AWB_RCMLE	Good	Under review
WB15	Lyreen_010	N 86262 37369	IE_EA_09L020035	Poor	At risk
WB16	Drainage ditches	N 86442 36490	N/A	N/A	N/A
WB17	Drainage ditches	N 86592 36149	N/A	N/A	N/A
WB18	Drainage ditch	N 86589 36154	N/A	N/A	N/A
WB19	Lyreen_010 (Baltracey Trib Lyreen)	N 86673 35787	IE_EA_09L020035	Poor	At risk
WB20	Tributary of Lyreen_010	N 86754 35459	N/A	N/A	N/A
WB21	Drainage ditches	N 86823 35188	N/A	N/A	N/A
WB22	Clonshanbo_010	N 87176 33938	IE_EA_09C030300	Poor	At risk
WB23	Drainage ditches	N 87298 33417	N/A	N/A	N/A
WB24	Clonshanbo_020	N 86916 31840	IE_EA_09C030600	Poor	At risk
WB25	Kilmurry_010	N 86272 30537	IE_EA_09K260890	Poor	Under review
WB26	Tributary of Kilmurray_010	N 86151 30369	N/A	N/A	N/A
WB27	Liffey_130	N 84449 28586	IE_EA_09L011600	Good	Not at risk
WB28	Tributary of Liffey_130	N 84283 28429	N/A	N/A	N/A
WB29	Liffey_130	N 84425 28283	IE_EA_09L011600	Good	Not at risk
WB30	Tributary of Slate_010	N 84237 27559	N/A	N/A	N/A
WB31	Liffey_130	N 84807 27542	IE_EA_09L011600	Good	Not at risk
WB32	Liffey_120	N 87519 25081	IE_EA_09L011500	Good	Not at risk
WB33	Drainage ditch	N 87844 24820	N/A	N/A	N/A
WB34	Drainage ditch	N 87950 24710	N/A	N/A	N/A

Waterbody number (WB)	Waterbody name	Waterbody location – Grid reference	EU Code	WFD status 2016-2021	Risk rating
WB35	Liffey_120	N 88001 24231	IE_EA_09L011500	Good	Not at risk
WB36	Liffey_120	N 88281 24006	IE_EA_09L011500	Good	Not at risk
WB37	Liffey_120	N 88110 23008	IE_EA_09L011500	Good	Not at risk
WB38	Grand Canal	N 88152 22604	IE_09_AWB_GCMLE	Good	Not at risk
WB39	Liffey_110	N 88249 21068	IE_EA_09L011300	Good	Under review
WB40	Liffey_110	N 87711 20395	IE_EA_09L011300	Good	Under review
WB41	Liffey_110	N 87394 20021	IE_EA_09L011300	Good	Under review
WB42	Grand Canal	N 88288 19245	IE_09_AWB_GCMLE	Good	Not at risk
WB43	Liffey_100	N 88310 18467	IE_EA_09L011200	Good	Under review
WB44	Drainage ditch	N 88077 15749	N/A	N/A	N/A
WB45	Dunstown Stream	N 87555 12433	N/A	N/A	N/A
WB46	Tributary of Liffey_120	N 88017 24231	N/A	N/A	N/A

Several drainage ditches, some wet and some dry, were identified predominantly along field boundaries in the vicinity of the scheme. It should be noted, however, that these contained water intermittently.

3.1.6 Invasive species

A search of the NBDC identified a number of records of invasive species within the study area including:

- Parrot's-feather (*Myriophyllum aquaticum*).
- Japanese knotweed (*Reynoutria japonica*).
- Three-cornered leek (*Allium triquetrum*).
- Spanish bluebell (*Hyacinthoides hispanica*).

Himalayan balsam was recorded during the field survey along the River Liffey at approximately ITM E687941, N724498 and in the back garden of a private residence at E687974, N724322.

It should be noted that these species are listed on the Third Schedule to the European Communities (EC) (Birds and Natural Habitats) Regulations, 2011, as amended.

4. Screening

4.1 Description of the Proposed Development

The Proposed Development is a 52.9km underground cable (UGC) between Dunstown substation in Kildare and Woodland substation in Meath (as shown in Image 1), of which 9.5km (18%) is off-road and 43.3km (25%) is in-road. The 400 kV UGC is proposed to be sited within the existing roads and will be in a trench excavated to 1.3m deep and 1.5m wide running the full length of the scheme. Approximately every 750m (on average) the cables will be joined together at a 'joint bay', of which there will be 70 in total. Joint bays are pre-cast concrete underground chambers approximately 2.5m wide by 10m long by 2m deep with two associated manhole covers to the side of the chamber. There are 31 off-road and 39 in-road joint bays. Where the joint bays are off road a permanent hard standing area in a 3 m radius around the joint bay will be provided. At joint bays, there will be additional land take to facilitate construction. At each joint, except for those which are off-road, there will be provision for cars to pass around it at a passing bay. Passing bays are temporary structures, which may be in place for up to two years. Each temporary passing bay will be on average 5.5m wide with length of 100m (exact length to be determined by engineering constraints). Passing bays will be reinstated post-construction.

The routing of the cable and associated jointing and passing bays took into consideration the location of mature trees along the route. The route and bay positions were moved to avoid mature trees where possible. However, due to narrow treelined roads in several locations and the requirement for set distances between jointing bays, avoidance of vegetation loss was not possible in all areas and to accommodate the trenches for the UGC there will need to be significant removal of hedgerows, trees, including mature trees, which are lining the road network where the development is proposed to be. The other habitats which are impacted to the greatest extent by area comprise arable and pastural land, dry calcareous grassland, immature woods at the north of the scheme at Woodland substation. Refer to the Planning and Environmental Considerations Report (Jacobs, 2023) for further details of these habitats.

Six temporary construction compounds are proposed, each approximately one hectare in size. All temporary construction compounds will be secured with hoarding/ fencing around their perimeter as appropriate. Temporary construction compounds will include facilities such as construction phase car parking and welfare facilities and temporary material storage areas as necessary.

Access tracks comprise both temporary and permanent tracks. Where a permanent access track is required to access off-road joint bays, this will comprise of approximately 300mm of fill material and finished to approximately 100mm above ground level. The access track will remain in place to allow access to cables should future maintenance works be required. The permanent access track will be designed and constructed to accommodate heavy plant (5t axel loading) movement. Where a temporary construction road is required, engineering stone fill will be laid and compacted and maintained as required for the duration of the works. Once the works are completed, the engineered stone fill will be removed, and the land will be reinstated to its original condition.

Horizonal directional drilling (HDD) is proposed at major watercourse crossings or where there are significant constraints. There will be a 'launch' and 'reception' pit either side of the drilling and those temporary HDD compounds will be within the planning application boundary. There are six HDD proposed along the cable route including at Rye Water (WB13) which is approximately 6km direct distance over land and approximately 8km hydrologically, at the closed point.

Programme and Timing of Works

Subject to the grant of statutory approvals, it is anticipated that the construction phase will commence in Quarter 2, 2025 with the underground cable element of the Proposed Development becoming fully operational after construction and testing in Quarter 3, 2028.

The works at the Woodland Substation are expected to last approximately 24 months while the works at Dunstown Substation are expected to last approximately 12 months and will run concurrently with the cabling works.

Construction activities will gradually phase out from pre-construction to predominantly civil activities followed by commissioning and testing.

In general, it is anticipated that construction will occur during normal working hours i.e. Monday to Friday 7 am to 7 pm and Saturday from 7 am to 2 pm. There may be localised instances where night-time working is required to facilitate traffic management, however, should working outside these hours / days be required they will only be undertaken with prior agreement with Meath and Kildare County Councils.

Clearance of hedgerow, treeline or scrub vegetation, where required, will take place after 31 August and before 1 March in order to protect breeding birds, (i.e. outside of the bird breeding season). Clearance may take place during the restricted period, if a suitably qualified ecologist has determined that nesting birds and other protected species are absent. Enabling works have been provisionally programmed for Q1 2025.This allows sufficient time for habitat clearance outside of the breeding season. This would increase the construction period to 45 months if it is required.

Any element of the scheme requiring instream works in watercourses with fisheries value will be restricted to the fisheries open season (i.e. will only take place during the period July to September), unless with the agreement of IFI.

Subject to the grant of consents, it is anticipated that installation of the underground cable will take approximately 42 months in total. Safety requirements for the installation operations / procedures, detailed design considerations and weather condition will however ultimately dictate the final programme.

The majority of the construction activities are not dependent on outages on the existing transmission system, however, specific activities associated with the connection at the existing Woodland and Dunstown substations on to the existing transmission infrastructure will be planned and programmed into EirGrid's multi-year outage programme. This is because the existing live infrastructure needs to be switched off during such connection activities. EirGrid, as Transmission System Operator, develops a detailed plan for such outages each year to ensure the undertaking of the safe and efficient construction and maintenance activities involving or in proximity to existing infrastructure.

4.2 Potential effect pathways from Proposed Development

Table 4.1 outlines broad categories of potential impacts that could occur as a result of generic development, and the potential effects on European sites.

Table 4.1 Generic potential effect pathways from development on European sites.

Broad categories of potential impacts on European sites	Potential effect pathways
Physical loss of habitats/ supporting habitat	Development could result in direct loss of QI habitat (terrestrial or aquatic) in a European site. Physical loss of habitat is only likely to be significant if it is within the boundary of a European site, or within an area of supporting habitat outside of the European site (for example, off-site area of known foraging, roosting, breeding habitat for a QI for which a European site is designated).
Mortality	Mortality of species could occur through direct impact of habitat used by that species or as a result of pollution to habitats that support QI species, aquatic species in particular .
Habitat degradation – changes in water quality (pollution)	Water quality can be affected by oil, chemicals, heavy metals and so on, or through chronic runoff of such materials. Water quality can also be affected by sedimentation through runoff from construction sites. Changes in water quality could directly affect QI species or habitats or affect them indirectly through loss of aquatic prey species, or through changes in their habitat. Pollution effects can occur outside of a European site and at a considerable distance from works (for example, via hydrological link).
Habitat degradation – hydrological/ hydrogeological changes	Construction impacts could affect groundwater quality and/or quantity and thereby the existing hydrological regime. Changes in hydrology can alter geomorphological processes which can affect the deposition of shingle or other material potentially impacting on QI fish species amongst others. Changes in these processes can impact aquatic/riparian/terrestrial habitats and species either directly or indirectly.
Disturbance (including biological disturbance)	Development could result in disturbance of QI species. This disturbance may include, but not be limited to, noise, vibration, movement (of people and/or vehicles) and lighting. Disturbance may lead to the abandonment of habitats or resting sites by QI species, which could include designated or supporting habitats outside of a European site. Spread of non-native invasive species.

4.3 European Site within the ZoI of the Proposed Development

The 'source-pathway-receptor' model was applied to Proposed Development works locations with respect to European sites taking consideration of the above potential impact pathways connecting them. A map showing the location of the European sites in the vicinity of the Proposed Development is shown in Figure 1 (321084AH-JAC-ZZ-XX-DR-K-3000), Appendix A.

Two European sites are within the ZoI of the Proposed Development are as follows, and their conservation objectives and qualifying interest are shown in Table 4.2:

- River Boyne and River Blackwater SAC and
- Rye Water Valley/Carton SAC.

Table 4.2: Conservation objectives of the River Boyne and River Blackwater SAC, and Rye Water Valley / Carlton SAC, which lay within the ZoI of the Proposed Development

European site name and code	Distance of site from project	Conservation Objectives and Qualifying Interests (*=priority habitat).
Special Area of Conservation (SAC)		
Rye Water Valley/Carton SAC (site code 001398) **(NPWS, 2021b)**	The Proposed Development will be 6.2km west at the closest distance from the SAC (at Dolanstown). The Proposed Development is in the same catchment and the shortest hydrological distance between the Proposed Development and this SAC is 8.15km, commencing at Kilcock (Rye Water, WB13)	***To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.*** **Annex I habitats:** Petrifying springs with tufa formation (*Cratoneurion*) [7220] **Annex II species:** Narrow mouthed whorl snail (*Vertigo angustior*) [1014] Desmoulin's whorl snail [1016]
River Boyne and River Blackwater SAC (site code: 002299) **(NPWS, 2018).**	The Proposed Development will be 14.2km east at its closest distance from the SAC (at Brannockstown). Not hydrologically linked as is separate catchment.	***To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.*** **Annex I habitats:** Alkaline fens [7230] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)* [91E0] **Annex II species:** River lamprey (*Lampetra fluviatilis*) [1099] Salmon (*Salmo salar*) [1106] Otter (*Lutra lutra*) [1355]

4.3.1 Other European sites within the vicinity of the Proposed Development but outside the ZoI

The following European sites are considered to be within the vicinity of the Proposed Development works but outside the ZoI:

River Boyne and River Blackwater SPA (Site code 004232) is approximately 14km distant and in a separate catchment to that of the Proposed Development (the Boyle catchment rather than the Tolka catchment), and therefore it has no hydrological connectivity to the Proposed Development. The SPA is designated for kingfisher (*Alcedo atthis*) only. The territories of kingfishers tend to cover at least 1km of river but may extend over up to 5km depending on the amount of food available, and on the bird population in the area (RSPB, undated). There is no potential for the Proposed Development to impact the QI species within or linked to the SPA for the following reasons.

- Given the overland distance (>14km) and lack of hydrological connectivity/ecological connectivity this is considered outside the ZoI of the Proposed Development.
- Given the distance of the SPA from the Proposed Development, kingfisher populations along the SPA are not considered to be affected by the works.

Ballynafagh Bog SAC (Site code 000391) is located 1.6km west of the Proposed Development at its nearest point. It is designated for active raised bogs, degraded raised bogs still capable of natural regeneration, depressions on peat substrates of the *Rhynchosporion* (NPWS, 2015a). Although there may be some interactions with ground

water, raised bogs are generally rainwater fed, receiving water and nutrients from precipitation (Gilroy, *et al*., 2008). There is no potential for the Proposed Development to impact upon the QI habitats within or linked to the SAC for the following reasons:

- Works are proposed at Maynooth Road, which, at grid reference N 83909 28033 lies 220m from a tributary which flows, after 2.0km, into a watercourse running along the southern boundary of Ballynafagh Bog SAC. This tributary crosses Maynooth Road at N 83742 27890. There is no hydrological link between the SAC and the Proposed Development due to the distance between the Proposed Development and where the tributary crosses Maynooth Road.
- Given the overland distance and lack of hydrological connectivity/ ecological connectivity this is considered outside the ZoI of the Proposed Development.
- Ballynafagh Bog SAC does not have species as qualifying interest (i.e., no mobile birds and mammals).

Ballynafagh Lake SAC (Site code 001387) is located 2.8km west of the Proposed Development. It is designated for alkaline fens, Desmoulin's whorl snail (*Vertigo moulinsiana*), and marsh fritillary (*Euphydryas aurinia*) (NPWS, 2021a). There is no potential for the Proposed Development to impact upon the QI habitats or species within or linked to the SAC for the following reasons.

- Marsh fritillary butterfly is found in a range of habitats in which its larval food plant, devil's bit scabious occurs and although populations may occur occasionally on wet heath, bog margins and woodland clearings, most colonies are found in damp acidic or dry calcareous grassland[6]. The Proposed Development is within the potential foraging range of marsh fritillary. A mark release recapture study of this species found the longest straight distances flown by adults was 7.6km (Zimmerman *et al*., 2011). Marsh fritillary was identified on the NBDC within 2km of the Proposed Development. Marsh fritillary was not recorded during the site visits, although its main food plant devil's bit scabious was recorded at one discrete location on Harristown Common at (Grid Reference N 87879 12976), which lies c462m east of the Proposed Development at its nearest location. The plant is separated from the Proposed Development by an amenity playing field and lies well outside the Proposed Development's footprint, and is not expected to have an impact on this species. In addition, the habitat between the SAC and the proposed works is predominantly arable, with limited opportunity for devil's bit scabious to flourish.
- Aerial images show the habitat between the SAC and Proposed Development is predominantly arable. Desmoulin's whorl snail is restricted to calcareous wetlands where it lives on reed grasses and sedges[7] There is no similar habitat between the SAC and the Proposed Development area. Given the absence of suitable habitat and lack of hydrological connectivity/ ecological connectivity this is considered outside the ZoI of the Proposed Development.

Mouds Bog SAC (Site code 002331) is located 6km west of the Proposed Development. It is designated for active raised bogs, degraded raised bogs still capable of natural regeneration, and depressions on peat substrates of the *Rhynchosporion* (NPWS, 2015b). There is no potential for the Proposed Development works to impact upon the QI habitats within or linked to the SAC for the following reasons:

- This SAC lies upstream of the Proposed Development.
- Given the overland distance and lack of hydrological connectivity/ ecological connectivity this is considered outside the ZoI of the Proposed Development.

Poulaphouca Reservoir SPA (Site code 004063) is located 8km east of the southern extent of the proposed works. It is designated for greylag goose (*Anser anser*), and lesser black-backed gull (*Larus fuscus*) (NPWS, 2022a). It should be noted that this SPA provides the main roost for this species. There is no potential for the Proposed Development area to impact upon the QI species within or linked to the SPA for the following reasons.

Greylag goose and lesser black-back gulls feed on improved grassland and could potentially fly from this SPA to the improved fields adjoining the Proposed Development: the foraging range for Greylag goose during the winter

[6] JNCC (2022). Marsh Fritillary: https://sac.jncc.gov.uk/species/S1065/
[7] JNCC (2022): Desmoulin's whorl snail. https://sac.jncc.gov.uk/species/S1016/

season is 15-20km (SNH, 216) and the nearest distance of the proposed works to Poulaphouca Reservoir SPA is 8km away and therefore within for foraging range of this species. However, 85% of the works are proposed to take place within the road and the habitat within and adjacent to the Proposed Development is unsuitable for them as it comprises predominantly trees and hedgerows. Where the Proposed Development is off-road, it does cross some improved pasture, which could potentially be used by Greylag goose. The desk study found Greylag goose wintering at Poulaphouca Reservoir mainly use fields at Threecastles to the northeast of Blessington Bridge and roost on the adjacent section of the reservoir, approximately 12.06km west of the proposed works at their nearest location; they may also use fields at Mount Seskin in County Dublin around 8 km to the north-east of Threecastles and approximately 17.57km from the proposed works at their nearest location. They also formerly roosted near Ballymore Eustace, around 5km to the south-west, and approximately 5.43km from the proposed works at its nearest location (Boland and Crowe, 2008).

Jacobs' winter bird survey (Jacobs, 2023) did not record any Greylag goose. Most records for wintering birds were from round several ponds or lakes, none of which will be directly impacted by the Proposed Development. The Proposed Development crosses WB39 which flows into the pond lying between Osberstown Millennium Park Road and the M7. The winter birds survey did not record birds using this pond which are QI of SPAs within foraging range of the pond, and therefore no indirect potential impacts on SPAs are predicted from birds using this pond. The Proposed Development does not any waterbodies with hydrological linkage to the pond lying between the R411 and Naas General Hospital and will therefore have no direct or indirect effect on the birds using this pond. The remaining records were of birds in flight or occasionally foraging in agricultural fields.

Jacobs' winter bird survey (Jacobs, 2023) recorded lesser black backed gull on two occasions foraging in fields, with a maximum count of 42 birds in a field of winter barley, approximately 224m to the west of the Proposed Development. The SPA citation states that the reservoir attracts roosting gulls during winter, including a large population of lesser-black backed gull, which in Ireland is rare away from the south coast. Given the preference of gulls for the coast and given the abundance of similar agricultural habitat available between the Proposed Development and the SPA 8km away, no likely significant effect is expected. In summary given that: 1) all nationally important sites for Greylag goose lie nearer to the coast than Poulaphouca Reservoir SPA; 2) the desk study found Greylag goose at Poulaphouca Reservoir SPA mainly using the fields in the vicinity of the SPA; 3) Jacob's winter bird survey (Jacobs 2023) did not record any Greylag goose and; 4) given the extent of other similar unimpacted habitat in the vicinity of the Proposed Development, as well as that lying between the SPA and the Proposed Development, the temporary loss the improved grassland is not expected to have a significant effect on these SPA bird populations.

Pollardstown Fen SAC (Site code 000396) is located 9km west of the Proposed Development. It is designated for the following habitats: 1) calcareous fens with *Cladium mariscus* and species of the *Caricon davallianae*, petrifying springs with tufa formation (*Cratoneurion*); 2) petrifying springs with tufa formation; and 3) alkaline fens. It is also designated for the following three species: Geyer's whorl snail (*Vertigo geyeri*), narrow-mouthed whorl snail, and Desmoulin's whorl snail (NPWS, 2022b). There is no potential for the Proposed Development to impact upon the QI habitats within or linked to the SAC for the following reasons:

- This SAC lies in a separate catchment to the Proposed Development so surface water will not be impacted.
- Pollardstown Fen SAC is a ground water dependent ecosystem (GWDTE). The cable trench will be 1.5m width by approximately 1.3m depth and given that he SAC it is 9km away from the Proposed Development and the likelihood of greatest impact to GWDTE is within 250m (SEPA, 2001), no detailed ground water assessment is required and no significant impact is likely.

The three habitats for which the SAC is designated do not have connectivity with the Proposed Development area. Connected habitat suitable to support the three QI species was not present between the proposed works and SAC. The habitat requirements for narrow-mouth whorl snail and Desmoulin's whorl snail are described above. Geyer's whorl snail is found in relatively exposed, constantly humid calcareous flush-fens that are fed by tufa-depositing springs.[8]

[8] JNCC (2022) Geyer's whorl snail: https://sac.jncc.gov.uk/species/S1013/

5. Assessment of Likely Significant Effects (LSEs)

5.1 Screening Exercise

A screening exercise is presented in Table 5.1 below which examines the potential effects of the Proposed Development on 1) Rye Water Valley/Carton SAC and 2) the River Boyne and River Blackwater SAC and their qualifying interest (Annex I habitats and Annex II species) for which they are designated. The results of this exercise and the rationale for 'screening in or screening out' European sites within the ZoI (and therefore, of potential relevance to the AA) are also detailed in Table 5.1.

Table 5.1: European Site with the Potential for likely significant effects from the Proposed Development (grey text = qualifying feature with no effect pathway identified.)

European site name and code	Distance of site from projects	Conservation Objectives and Qualifying Interests (*=priority habitat).	Pathway	Likely Significant Effects (LSEs)
Special Area of Conservation (SAC)				
Rye Water Valley/Carton SAC **(NPWS, 2021b)**	The Proposed Development is 6.2km west at the closest distance from the SAC (at Dolanstown) The Proposed Development is in the same catchment and the shortest hydrological distance between the Proposed Development and this SAC is 8.15km, commencing at Kilcock (Rye Water, WB13)	***To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.*** **Annex I habitats:** Petrifying springs with tufa formation (*Cratoneurion*) [7220] **Annex II species:** Narrow mouthed whorl snail (*Vertigo angustior*) [1014] Desmoulin's whorl snail (*Vertigo moulinsiana*) [1016]	**Habitat degradation (Pollution)** There is hydrological connectivity to this SAC where the Proposed Development crosses waterbodies which flow indirectly to Rye Water, since Rye Water flows through Rye Water Valley/Carton SAC. The nearest is WB13 which is 8.15km from this SAC. Directional drilling is proposed here which could potentially cause a pollution event resulting from: • oil and fuel spillages from drilling rig operation. • inadvertent drilling fluid returns (bentonite breakout) and • drilling fluid disposal. A total of ten further waterbody crossings have hydrological connectivity with the SAC. There is potential for surface sediment run-off during construction of the Proposed Development to enter waterbodies at these locations and be transported to the SAC. Therefore, water pollution incidents at these watercourses have the potential to indirectly affect the SAC's qualifying habitats and species. Petrifying springs have exacting water level and quality requirements and are therefore potentially susceptible to a water pollution/ hydrological incident. Desmoulin's whorl snail was recorded at the SAC in the 2014-2017 survey season (Long and Brophy, 2019) while narrow mouthed whorl was last recorded on the site in 1997 (NPWS, 2021b). Further assessment needed.	**Yes.** Petrifying springs with tufa formation (*Cratoneurion*), narrow mouthed whorl snail and Desmoulin's whorl snail screened in on a precautionary basis as all the SAC QI could be indirectly impacted by inadvertent drilling fluid returns from HDD in WB13 and/or surface sediment run-off into one of the connecting watercourses.

European site name and code	Distance of site from projects	Conservation Objectives and Qualifying Interests (*=priority habitat).	Pathway	Likely Significant Effects (LSEs)
			Direct mortality Desmoulin's whorl snail is restricted to calcareous wetlands where it lives on reed grasses and sedges. Such habitat does not connect the SAC to the Proposed Development area, so there is no likelihood of direct mortality of this species from habitat loss. Narrow mouthed whorlsnail is found primarily in marshy ground of high, even humidity, with flowing groundwater, but subject neither to deep or prolonged flooding nor to periodic desiccation. It requires unshaded conditions and lives amongst short vegetation, composed of grasses, mosses or low herbs, that is quickly warmed by the sun. The vegetation may be grazed. Such habitat does not connect the SAC to the Proposed Development area, so there is no likelihood of direct mortality of this species from habitat loss. No further consideration needed.	
River Boyne and River Blackwater SAC (site code: 002299) **(NPWS, 2018).**	The Proposed Development is 14.2km from the SAC at its closest location. There is no hydrological link.	***To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.*** **Annex I habitats:** *Alkaline fens* *Alluvial forests with Alnus glutinosa and Fraxinus excelsior* **Annex II species:** River lamprey Salmon Otter (potential effect pathway identified)	**Habitat loss** Direct/ indirect impacts: alkaline fens and alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* are not located nearby the Proposed Development. There will be no loss of these habitats therefore direct impacts associated with direct habitat loss were ruled out. Further, the SAC is in a separate catchment therefore there is no hydrological link. No further consideration needed. **Disturbance** Otter is a qualifying feature of the River Boyne and River Blackwater SAC, and otter signs were recorded close to the Proposed Development during the Jacobs 2021/22 survey season as follows: • potential otter holt was recorded along the River Liffey at approximately ITM E687929 N724445, (this grid reference lies along the route the proposed HDD where it crosses the River Liffey, WB35.	No potential for LSEs.

European site name and code	Distance of site from projects	Conservation Objectives and Qualifying Interests (*=priority habitat).	Pathway	Likely Significant Effects (LSEs)
			• an otter slide at approximately ITM E687940, N724511 (this grid reference lies approximately 16m east of the cable route. The Proposed Development is located 14.2km south-east of the SAC at its closest point. The otters present adjacent to the River Liffey are in a different catchment to those in the SAC, and the otter signs are approximately 28km south-east of the SAC at its nearest point. The Proposed Development lies 14.2km from this SAC at its nearest point, and a male otter's territory is 13.2 ± 5.3km[9]. However, as there are no other rivers designated for otters between the SAC and the proposed works, the SAC is considered the core area for otters, rather than in intervening rivers and tributaries. As the SAC extends for approximately 65km to the Baltry Estuary, is it considered that otters are more likely to remain in the River Boyne and River Blackwater SAC and/Boyne catchment than to migrate into Liffey catchment. Therefore, the Proposed Development is not considered to have a likely significant effect on otters, a QI of this SAC. No further consideration needed. **Direct mortality** As described in the paragraph above the proposed route lies close to the otter signs on the River Liffey. However, as the otters at this location belong to a different population to those of the River Boyne and River Blackwater SAC, the interest feature of the SAC will not be impacted by the Proposed Development. No further consideration needed. **Pollution** There is no hydrological pathway between the SAC and the Proposed Development since the water flowing in the River	

[9] National Otter Survey of Ireland 2010/12, published by the National Parks and Wildlife Service (2013)

European site name and code	Distance of site from projects	Conservation Objectives and Qualifying Interests (*=priority habitat).	Pathway	Likely Significant Effects (LSEs)
			Boyne and River Blackwater lies in the Boyne catchment rather than the Liffey and Dublin Bay catchment, the location of the Proposed Development. Consequently, there is no potential for a pollution event to occur. No further consideration needed.	

5.2 Determination of Likely Significant Effects

Potential pathways were considered between the Proposed Development and the two European designated sites which lay with the ZoI (the Rye Water Valley/Carton SAC and the River Boyne and River Blackwater SAC) as outlined in Table 5.1.

The determination of LSEs is considered to be any effect that may possibly occur as a consequence of the proposed works that would undermine the conservation objectives for the site's QI features. In the assessment of LSEs, consideration is given to what would constitute a significant effect in terms of loss, fragmentation, disruption, disturbance and changes to key elements affecting the QI features that may compromise the conservation objectives for that feature.

The determination found that there was the potential for LSE for the Rye Water Valley/Carton SAC. There are no LSEs on any other European site or associated QI from the Proposed Development.

5.3 In-Combination Effects

To take account of in-combination effects, plans, and projects that are completed, approved but uncompleted, or proposed (but not yet approved) should be considered in appropriate assessment screening (EC, 2021). A search of the National Planning Application Database (NPAD) (DoHLGH, accessed March, 2022) and general web searches for major infrastructure projects and plans in the vicinity of the Proposed Development in the last five years has been undertaken to identify other projects that may result in cumulative impacts.

Planning applications that have been proposed or granted permission in the nearby vicinity which constitute significant works are presented below in Table 5.2. The majority of recent planning applications in the vicinity of the Proposed Development are small scale domestic and commercial applications. These smaller developments are presented in Table 5.3.

Table 5.2 Plans and significant developments in the vicinity of the Proposed Development.

Planning ref.	Planning Authority	Project Description	Comment
N/A	Meath County Council	Meath County Development Plan 2021-2027. A Natura Impact Report was prepared (Scott Cawley, 2021) in support of The Meath County Development Plan 2021-2027. This report assessed potential impacts arising from the Meath County Development Plan 2021-2027 (Meath County Council, 2021). No impacts were identified on any of the European sites identified within the ZoI or the vicinity of the Proposed Development. As such, no in-combination effects are anticipated between the Proposed Development and the Meath County Development Plan 2021-2027 or the supporting NIS.	No in-combination effects are anticipated.
N/A	Kildare County Council	Kildare County Development Plan 2017-2023. A Natura Impact Report was prepared (CAAS, 2017) in support of the Kildare County Development Plan 2017-2023. This report assessed potential impacts arising from the Kildare County Development Plan 2017-2023 (Kildare County Council, 2017). No impacts were identified on any of the European sites identified within the ZoI or the vicinity of the Proposed Development. As such, no in-combination effects are anticipated between the Proposed Development and the NIS	No in-combination effects are anticipated.

Planning ref.	Planning Authority	Project Description	Comment
		prepared in support of the Kildare County Development Plan 2017-2023.	
N/A	Kildare County Development Plan 2023-2029	Kildare County Development Plan 2023-2029. A Natura Impact Report was prepared (Arup, 2022) in support of the Draft Kildare County Development Plan 2023-2029. This report assessed potential impacts arising from the Draft Kildare County Development Plan 2023-2029. No impacts were identified on any of the European sites identified within the ZoI or the vicinity of the Proposed Development. As such, no in-combination effects are anticipated between the Proposed Development and the Kildare County Development Plan 2023-2029.	No in-combination effects are anticipated.
N/A	EirGrid Grid Implementation Plan 2017-2022	The policies, objectives and projects within EirGrid's Grid Implementation Plan were screened for their potential to have Likely Significant Effects (LSEs) on European sites and five projects identified with the potential for LSE. These were assessed in the NIS for the plan. No impacts were identified on any of the European sites identified within the ZoI or the vicinity of the Proposed Development. As such, no in-combination effects are anticipated between the Proposed Development and the NIS prepared in support of the Grid Implementation Plan 2017-2022.	No in-combination effects are anticipated.
201143	Kildare County Council	Conditional permission granted for a proposed extension to a Distribution Centre of height 19m to comprise of a: warehouse extension (approx. 11,82m^2), main office extension over two storeys; dispatch and extension goods-in office over two storeys; new one storey transport office; and vehicle maintenance unit extension. The gross floor area of the premises will increase from 29,106m^2 to 41,891m^2, an increase of 12,785m^2. Some demolition will be required. Additional new vehicle parking areas will be provided including a new HGV parking area located to the east of the Distribution Centre and a new additional car parking area to the south of the Distribution Centre, on the south side of the R148. Provision of 172 no. car parking spaces; 175 no. HGV trailer parking spaces; 27 no. tractor (HGV cab) parking spaces; and 128 no. bicycle parking spaces and associated infrastructure. The development will involve minor alterations to the existing entrance at R148 which will provide vehicular, pedestrian and cyclist access and egress to the Distribution Centre. An additional new vehicular, pedestrian and cyclist access and egress will be provided off R148 to a new car parking area to the south of the main Distribution Centre site. A pedestrian crossing over this road will be provided connecting the southern car park to the main site. The associated site and infrastructural works include provision for all landscaping works; boundary treatment; internal roads and footpaths; PV panels and electrical services. The Proposed Development will involve modifications to a previous permission - Planning Register	An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) were submitted to the Planning Authority with the planning application (Scott Cawley, 2020). This NIS concluded that 'the Proposed Development will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plants or projects and there is no reasonable scientific doubt in relation to this conclusion.

Planning ref.	Planning Authority	Project Description	Comment
		Reference 02/1561. Project has hydrological connectively with Rye Water Valley /Carton SAC and lies 9.1km from it.	
20840	Kildare County Council	Conditional permission granted for the construction of a 5627m^2 Specialist Packaging Single Storey High Level Manufacturing Facility with Three Storey Head office incorporating administration, sales, design, research and development departments, staff changing room, staff canteen, car parking, bicycle parking, ESB sub station, two storey services plant room, loading bay, entrance gates, pedestrian gate, building signage, landscaping, extension to existing estate service road and all associated siteworks on a site of 2.5672ha. KCC (20840) does not cross a watercourse. The nearest watercourse to the Proposed Development is the Grand Canal which lies approximately 70m to its east and has no connectivity with Rye Valley/Carton SAC.	No in-combination effects are anticipated.
18303023	Kildare County Council	Conditional permission granted for a strategic housing development (SHD) (ABP Decision) consisting of 125 no. new residential units. Provision of a total of 251 no. car parking spaces, including 228 no. spaces serving the residential units and 23 no. visitor spaces are dispersed throughout the scheme. The Proposed Development includes all ancillary and associated site and infrastructural works, including an extension of the access road permitted under KCC Reg Ref 15/848 (ABP Reg Ref PL09.246859) to provide pedestrian / cycle and vehicular access to the application site from the R448 Kilcullen Road. KCC (18303023) does not cross any watercourse and has no hydrological connectivity with Rye Valley/Carton SAC.	No in-combination effects are anticipated.
19305701	Kildare County Council	Conditional permission granted for a strategic housing development (SHD) (ABP Decision) involving the demolition of an existing dwelling and agricultural buildings on the subject site and the construction of a residential development of 314 no. dwellings, a crèche, and retail unit. Demolition of 1 no. existing single storey house required as well as derelict unroofed agricultural buildings. Ancillary landscape works with public lighting, planting and boundary treatments including re-grading / re-profiling of site where required as well as provision of cycle paths and pedestrian connections and landscaping integrated with Rathasker Road and pedestrian bridge over Yeomanstown Stream (also known as Rathasker Stream) required. Vehicular and pedestrian access from 2 no. existing access points from the constructed Devoy Link Road for Area A and use of existing entrance to Elsmore Phase 1 for Area B (from the Devoy Link Road), 578 no. car parking spaces and 159 no. cycle parking spaces (including single storey bin / cycle stores) will be provided. KCC (19305701) has no connectivity with Rye Valley/Carton SAC.	No in-combination effects are anticipated.

Planning ref.	Planning Authority	Project Description	Comment
22837	Meath County Council	GDA Energy 4 Ltd Battery Storage Park- planning permission has been consented to a third party for an energy park to the north of the existing Woodland substation The Proposed Development is immediately adjacent to the Proposed Development. An AA screening report has been submitted as part of that application and has concluded that there are no likely significant effects for that application. Based on that conclusion and the nature the Proposed Development, it is concluded that there is no potential for LSEs in-combination with the Proposed Development.	No in-combination effects are anticipated.
N/A	Meath County Council/Fingal County Council	CP1021: EirGrid - A project which will add a high-capacity electricity connection between Belcamp substation in Dublin and Woodland substation in Meath. The need for the project is integration of generation and an increase in demand on the east coast. The project is currently in the design stage and so a planning application has not been submitted as yet. Given the timing of the works and the lack of LSE arising from the Woodland's Proposed Development there is no potential for LSEs in-combination with the Proposed Development.	No in-combination effects are anticipated.
221550	Meath County Council	CP1194: EirGrid Woodland 400 kV Extension Project. The northern end of the Kildare Meath Grid Upgrade project connects to the Woodland substation. EirGrid is proposing to upgrade and expand the Woodland Substation in order to accommodate potential future upgrades to the electricity network in Meath. An AA screening report has been submitted as part of that application and has concluded that there are no likely significant effects for that application. Based on that conclusion and the nature the Proposed Development, it is concluded that there is no potential for LSEs in-combination with the Proposed Development.	No in-combination effects are anticipated.
211175	Kildare County Council	EirGrid Dunstown 400 kV series Compensation project. The southern end of the Kildare Meath Grid Upgrade project connects to the Dunstown substation. Permission granted for development on lands to the west of the Dunstown substation within the townland of Dunstown, Brannockstown, Naas, Co. Kildare. The Proposed Development will consist of an extension to the western boundary of the existing Dunstown substation to allow connection of series compensation equipment to the Dunnstown-Moneypoint 400 kV circuit. An AA screening report has been submitted as part of that application and has concluded that there are no likely significant effects for that application. Based on that conclusion and the nature the Proposed Development, it is concluded that there is no potential for LSEs in-combination with the Proposed Development.	No in-combination effects are anticipated.

Planning ref.	Planning Authority	Project Description	Comment
N/A	Various including County Meath	North-South 400 kV Interconnection Development EirGrid plc (EirGrid) and System Operator Northern Ireland Ltd (SONI) (the respective applicants) are jointly planning a major cross-border electricity transmission development between the existing high-voltage transmission networks of Ireland2 and Northern Ireland. The overall interconnection project is a 400 kV overhead line (OHL) circuit linking the existing substation in Woodland, County Meath with a planned substation in Turleenan, County Tyrone. The proposed interconnector will provide a second high-capacity electricity interconnector between Ireland and Northern Ireland. The existing interconnector is a 275 kV double circuit OHL which connects the existing Tandragee and Louth substations. The proposed interconnector is planned to traverse the counties of Tyrone, Armagh, Monaghan, Cavan and Meath	No effects are likely on the Rye Water /Carton SAC from the Interconnector Development as there is no hydrological linkage to the SAC.
REF 22314564	Kildare County Council	Proposed development (30,839 sq.m GFA) will consist of the demolition of a detached, vacant cottage (gfa 69sq.m) and the construction of 272 residential units (149 no. houses, 65 apartments and 58 duplexes), childcare facility and foul pumping station along with associated ancillary works and site works. The 149 no. dwellings consist of: • 40 no. 4 bed 2 storey houses (House Type A1, A2, A3, A4, A5) • 8 no. 4 bed 3 storey houses (House Type E1, E2) • 90 no. 3 bed 2 storey houses (House Type B1, B2, B3, C1, C2) • 11 no. 2 bed 2 storey houses (House Type D1) The proposed apartments and duplexes are provided in 7 no. blocks (Blocks A, B, C, D, E, F, G) ranging in height from 3 to 4 storeys, with the exception of 1no. Duplex Block (Type N1), which is a 3 storey, end of terrace unit. Block A and Block B contain Rooftop terraces at 4th floor level. The Duplex Blocks (Type J1, Type, J2, Type J3, Type J4, Type K1, Type L1, Type M1, Type N1) are all 3-storey and contain 58 units divided as follows: - 6no. 1 bed ground floor apartment units (Units L1-A) - 23no. 2 bed ground floor apartment units (Units J1-A, J2-A, J3-A, J4-A, K1-A, M1-A, N1-A) - 1no. 2 bed duplex unit (two-storey unit) (Units K1-B) - 25no. 3 bed duplex units (two-storey units) (Units J1-B, J2-B, J3-B, J4-B, L1-B) - 3no. 4 bed duplex units (two-storey units) (Units M1-B, N1-B) The 65 apartments are located within Blocks A, B, C and D divided as follows: - 17no. 1 bed units (Type F1, Type F2, Type F3, Type F4, Type F5, Type F6) - 37no. 2 bed units (Type G1, Type G2, Type G3, Type G4, Type G5-A, Type G5-B, Type G6, Type G7, Type G8) - 11no. 3 bed units (Type H1, Type H2) Block D also contains a childcare facility (gfa.526.2 sqm) and includes a dedicated outdoor play area (c.210 sq.m). Ancillary works including 1 no. vehicular entrances off the R148 to the north and 1 no. vehicular entrance off the R158 to the west, a spine road which will link with the permitted spine road on the adjoining lands to the south-east under PL09.306826, internal roads, footpaths, cycle lanes, car parking (465 no. spaces), cycle	An AA screening Report carried out by Niamh Ní Bhroin in 2022 for the planning application Ltd. found no likely significant effects were no LSE therefore no in combination effects are possible

Planning ref.	Planning Authority	Project Description	Comment
		storage/parking (426 no. spaces), 2 no. bus stops, bin storage, public open space, hard and soft landscaping, natural play area, play equipment, boundary treatments, public lighting, 3 no. substations (14sq.m each) and controlled pedestrian crossing on the R148.	
201143	Kildare County Council	Project involves proposed extension to the Distribution Centre (overall external height approx. 19m) will comprise of a: Warehouse Extension (approx. 11,824 sqm) with dock levellers on the north-eastern and south-western elevations; Main Office Extension over two storeys (approx. 386 sqm); Dispatch and Extension Goods-In Office over two storeys (Approx. 352 sqm); A new one storey Transport Office (approx. 123 sqm); and Vehicle Maintenance Unit (VMU) Extension (approx. 100 sqm). The gross floor area of the premises will increase from 29,106 sqm to 41,891 sqm, an increase of 12,785 sqm. The existing two storey internal Ancillary Office A and Battery Charging Area will be demolished to allow for the construction of the warehouse extension. Additional new vehicle parking areas will be provided including a new HGV parking area located to the east of the Distribution Centre and a new additional car parking area to the south of the Distribution Centre, on the south side of the R148. The development will also consist of an additional Sprinkler Tank (approx. 54 sqm) and External Cage Storage with a maintenance shed (approx. 64 sqm). The existing vehicle parking area will be reconfigured, and new vehicle parking areas provided for an additional: 172 no. car parking spaces (including 12 no. electric car charging points and an additional 15 no. universally accessible bays); 175 no. HGV trailer parking spaces; 27 no. tractor (HGV cab) parking spaces; and 128 no. bicycle parking spaces and associated infrastructure. A total of 24 motorcycle parking spaces will also be created. The development will involve minor alterations to the existing entrance at R148 which will provide vehicular, pedestrian and cyclist access and egress to the Distribution Centre. An additional new vehicular, pedestrian and cyclist access and egress will be provided off R148 to a new car parking area to the south of the main Distribution Centre site. A pedestrian crossing over this road will be provided connecting the southern car park to the main site. The associated site and infrastructural works include provision for all landscaping works; boundary treatment; internal roads and footpaths; PV panels and electrical services. The Proposed Development will involve modifications to a previous permission - Planning Register Reference 02/1561	The NIS for KCC (201143) identified the need for mitigation to protect the receiving environment and surface water during construction and operation of the Proposed Development. In the absence of mitigation, there is likely to be a significant effect from KCC (201143) on Rye Water Valley /Carton SAC. With the mitigation measures proposed in this NIS, no significant effect was predicted. Since screening does not include mitigation, it is concluded that there is potential for in-combination effects with KCC (201143) and the Proposed Development.

Table 5.3 Residential and commercial developments in the vicinity of the Proposed Development

Planning ref.	Planning Authority	Description of development	Comments
2043	Kildare County Council	Project involves the demolition of an existing building on site and recladding the shared gable to match the remaining neighbouring building. The construction of a new three storey over basement mixed use development consisting of a basement car park and plant room, pharmacy unit, convenience store unit and retail unit at ground floor, 4 No. units of medical consultation suites at first floor and 1 unit of medical consultation suites. Ancillary works include office space at second floor, car-parking, boundary treatments, new site entrances and siteworks.	No potential for in combination effects given the scale and location of the project.
22325	Kildare County Council	Project involves the installation of new external steel racking to the existing materials yard (the racking is to be mounted on top of the existing concrete hard standings) and all associated site works. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
20597	Kildare County Council	Project involves the side and front boundary wall piers increasing in height from circa 0.8m to circa 2m, a wrought iron railing between piers, a wrought iron sliding gate and all associated site works. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
21386	Kildare County Council	Project involves (a) Erection of a single storey type house; (b) Garage/fuel store for domestic use; (c) Installation of septic tank and percolation area; and (d) Upgrading of existing agricultural entrance to a new recessed vehicular entrance and all associated site works. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
191291	Kildare County Council	Project involves conversion and alterations of an existing workshop/office to create a two storey two-bedroom dwelling. New roof and raising of overall height of workshop, new doors and windows are proposed to the existing building. 2 no. new vehicular entrances, new wastewater treatment system for dwelling and associated works. Relocation of the parents' wastewater treatment system. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
18502	Kildare County Council	Project involves alteration works to an existing bungalow on the grounds of Painestown House (Protected Structure Ref. No. B14-30). The works include the construction of a single and two storey extension circa 73sqm, a detached single storey shed and carport, landscaping around the house, new treatment plant, percolation area and all associated ancillary works. Painestown House is also a recorded monument, NIAH No. KD010-034. No works proposed directly affect	No potential for in combination effects given the scale and location of the project.

Planning ref.	Planning Authority	Description of development	Comments
		Painestown House. AASR carried out and no potential for significant negative environmental effects were identified.	
19154	Kildare County Council	Project involves (1) Upgrade of existing farm entrance to modern day safety standards as detailed on drawing No. E3639-5, Commercial-Agricultural Entrance, as published by the Roads Department of Kildare County Council. (2) To carry out realignment works to the existing fence line on the north side of the proposed upgraded entrance for the purpose of attaining safe sightlines as required by the Roads Department of Kildare County Council. The above upgrading and improvement works are to be carried out to facilitate the safe operation of modern-day machinery while entering and exiting farm. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
191303	Kildare County Council	Project involves constructing a one and half storey type house, detached domestic garage, recessed vehicular entrance, effluent treatment system, and all associated ancillary site-works. Revised by Significant Further Information which consists of a revised Site Layout Plan and amendment to red line boundary to facilitate the relocation of entrance to provide a dual entrance with the adjoining dwelling.	No potential for in combination effects given the scale and location of the project.
223	Kildare County Council	Project involves alterations and extension to existing dormer style dwelling. The application will include the following: (a) Single storey extensions to the rear and side of the dwelling to provide new living room and utility room. (b) New entrance porch to the front of the dwelling. (c) Alterations to the elevational treatment of the dwelling, along with all associated site development and facilitating works including site landscaping. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
181214	Kildare County Council	Project involves retention permission for 4 no. existing booths (used for drying, shotblasting and painting) and ancillary storage rooms (476.9 sq.m combined), standalone office (21 sq.m) along with the change of use of the cottage to office / storage unit (136 sq.m). Planning permission is sought to: 1. Demolish domestic garage (25 sq.m). 2. Construct an extension to the north side of the shot blasting booth in order to contain all dust associated with shotblasting (37 sq.m) 3. Construct a new shed structure to the front of the existing workshop (414 sq.m.) in order to protect trailers from the weather during shotblast / repainting process and also, critically, to prevent dust emissions. The shed will have a maximum ridge height of 6.38m high and will be enclosed on 3 sides with the south elevation open to allow trailers to enter. It includes a new doorway connection to the existing cottage building. 4. Alter the access arrangements to provide single access to the	No potential for in combination effects given the scale and location of the project.

Planning ref.	Planning Authority	Description of development	Comments
		business and family dwelling and significantly improve sightlines and safety (includes new gates and dwelling). 5. Create new ordered trailer parking area to the rear of the workshop (significantly smaller area than previous application – approximately one third the size) including a dedicated turning area. 6. Provide new lined car parking for staff and visitors (12 spaces) and dedicated HGV parking (12 spaces) 7. Decommission the existing on-site treatment system and percolation area and provide new high specification on-site foul treatment system at a location to the rear of the site. 8. Provide new surface water drainage infrastructure. 9. Provide new landscaping with significant screening planting along the front boundary with family dwelling. 10. Carry out all associated site works.	
211814	Kildare County Council	Project involves the construction of an agricultural style building to be used to the storage of vintage cars for hobby purposes and all associated site works. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
21846	Kildare County Council	Project involves extensions to the rear and side of 123sq.m. Retention of change of use from garage to habitable space of 23sq.m. Retention of removal of block archways to the front elevation and retention of new septic tank and percolation area to existing detached bungalow. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
20974	Kildare County Council	Project involves 1) the extension to existing house will comprise of a bathroom and access corridor area 18.4m^2. 2) The conversion of an existing domestic garage, area c65m^2, providing a one-bedroom family flat comprising of; living room, kitchen, storage, bathroom and bedroom and all associated site works. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
RA200481	Meath County Council	Project involves a two-storey dwelling house, domestic garage, waste-water treatment system and percolation area, vehicular entrance onto public road and all associated site works. Significant further information/revised plans submitted on this application. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.
RA201288	Meath County Council	Project concerns a storey and a half type dwelling house, domestic garage, waste-water treatment system and percolation area, vehicular entrance onto public road and all associated site works.	No potential for in combination effects given the scale and location of the project.

Planning ref.	Planning Authority	Description of development	Comments
RA190130	Meath County Council	Project involves the construction of a two-storey dwelling and detached domestic garage, the installation of a proprietary domestic effluent system, new site entrance and all associated site works. AASR carried out and no potential for significant negative environmental effects were identified.	No potential for in combination effects given the scale and location of the project.

Outcome of consideration of in-combination effects

The NIS for KCC (201143) identified the need for mitigation to protect the receiving environment and surface water during construction and operation of the proposed development. In the absence of mitigation, it is there is likely to be a significant effect from KCC (201143) on Rye Water Valley /Carton SAC. With the mitigation measures proposed in this NIS, no significant effect was predicted. Since screening does not include mitigation, it is concluded that there is potential for and in-combination effects with KCC (201143) and the Proposed Development.

6. Statement and Conclusion

The Proposed Development is not connected with, or necessary to, the management of any European site(s).

This Appropriate Assessment Screening report presents the objective scientific information required to inform a robust and complete examination of the potential impacts of the Proposed Development on European sites alone or in combination with any other plan or project. No measures that avoid or reduce an adverse effect on European site (''mitigation measure'') or best practice measures were taken into account in this screening assessment. This screening assessment found that for the European sites listed below (which were in the vicinity of the Proposed Development), it can be excluded on the basis of objective information and in view of best scientific knowledge that there is no potential for the Proposed Development, alone or in combination with any other plan or project, to have a Likely Significant Effect on conservation objectives of these sites:

- River Boyne and River Blackwater SAC;
- River Boyne and River Blackwater SPA;
- Ballynafagh Bog SAC;
- Ballynafagh Lake SAC;
- Mouds Bog SAC;
- Poulaphouca Reservoir SPA and;
- Pollardstown Fen SAC.

The conclusion of the Screening for Appropriate Assessment is that it cannot be excluded on the basis of objective information and in view of best scientific knowledge that there there is potential for Likely Significant Effects, alone or in-combination, on the conservation objectives of only the Rye Water Valley/ Carton SAC, therefore it is respectfully submitted that Appropriate Assessment of the Proposed Development is to be undertaken by the competent authority (An Bord Pleanála) for that site..

7. References

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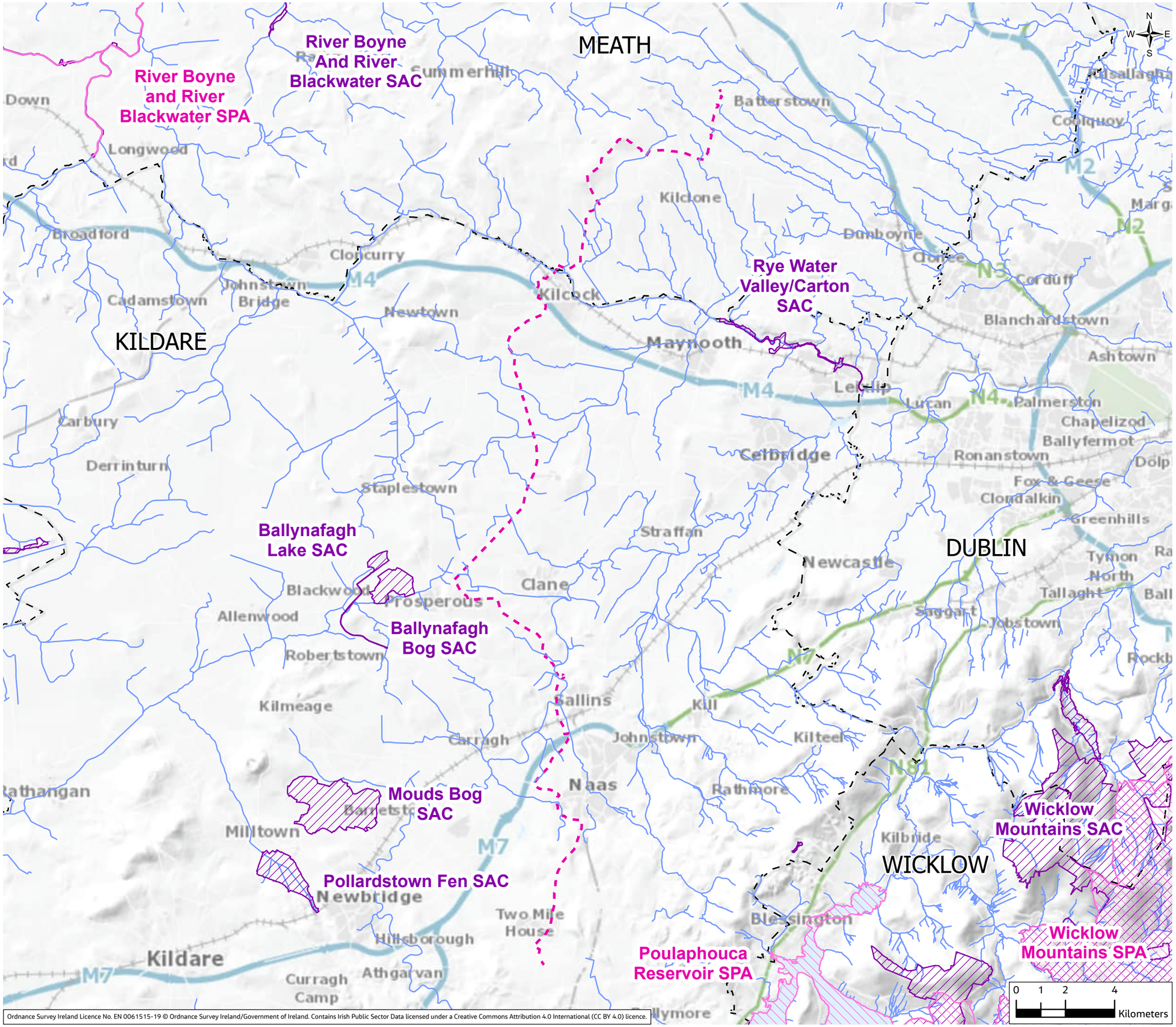
Appendix A. Figure 1 (321084AH-JAC-ZZ-XX-DR-K-3000). Cable route and nearest European sites



Appendix A; Figure 1

Legend

- Proposed Cable Route
- County Boundary
- Watercourses

European sites

- Special Area of Conservation (SAC)
- Special Protection Area (SPA)

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

Jacobs
Merrion House, Merrion Road, Dublin, D04 R2C5, Ireland.
www.jacobs.com

Project: Kildare-Meath Grid Upgrade

Drawing Title: Proposed cable route and nearby European Sites

Drawing Status: Final

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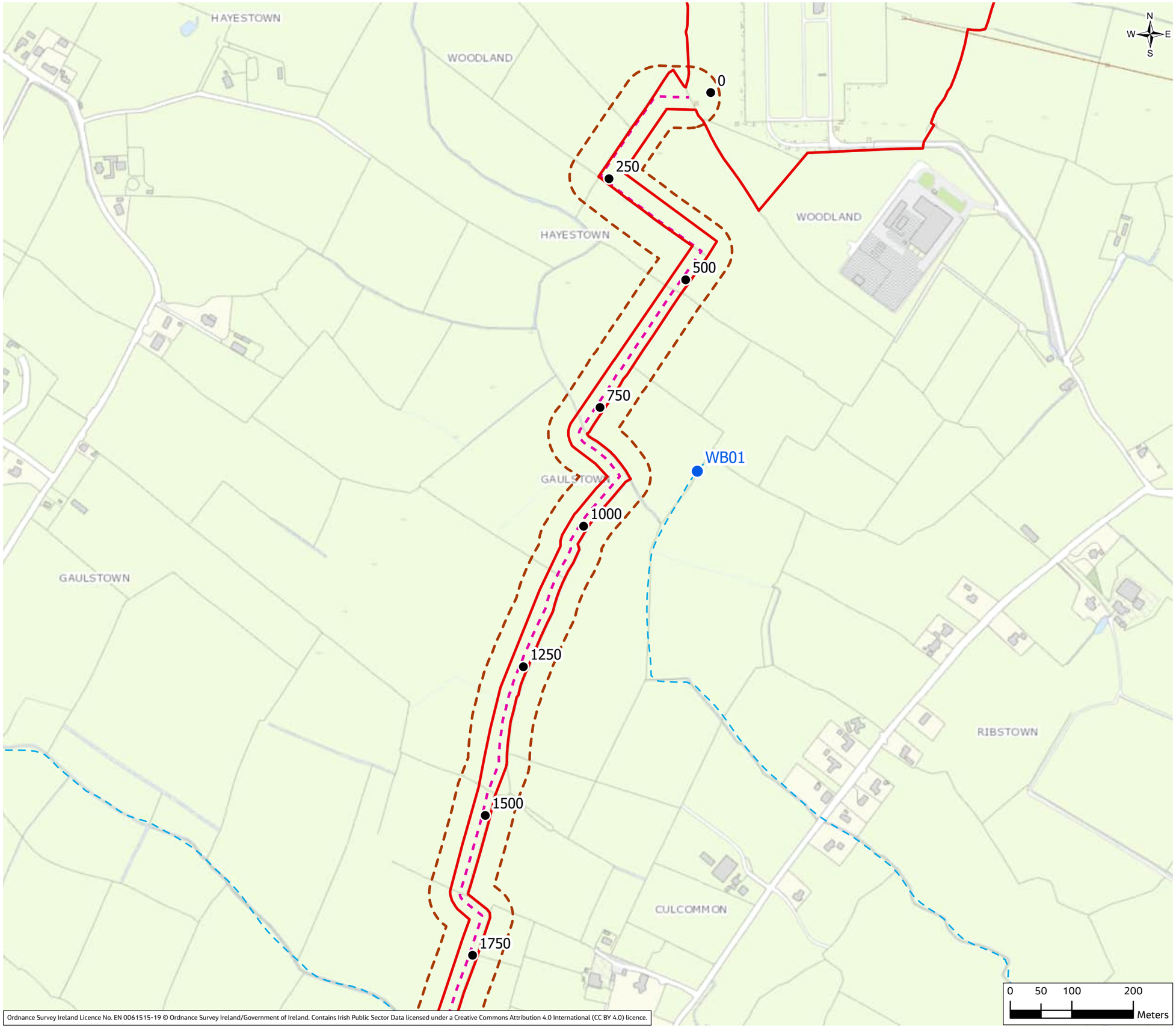
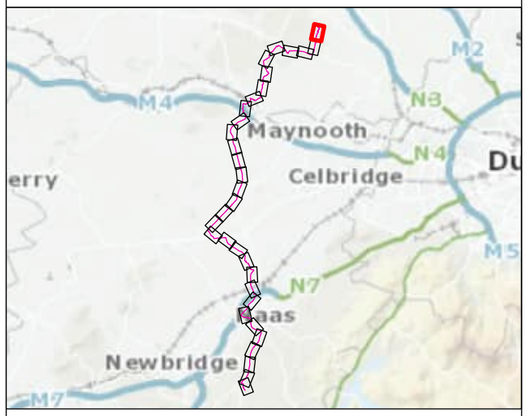
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3000

Appendix B. Figure 2 (321084AH-JAC-ZZ-XX-DR-K-3001 to 3034). Detailed cable route, with chainage and Waterbody numbering



Appendix B; Figure 2.1



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 1 of 33

Drawing Status: Final

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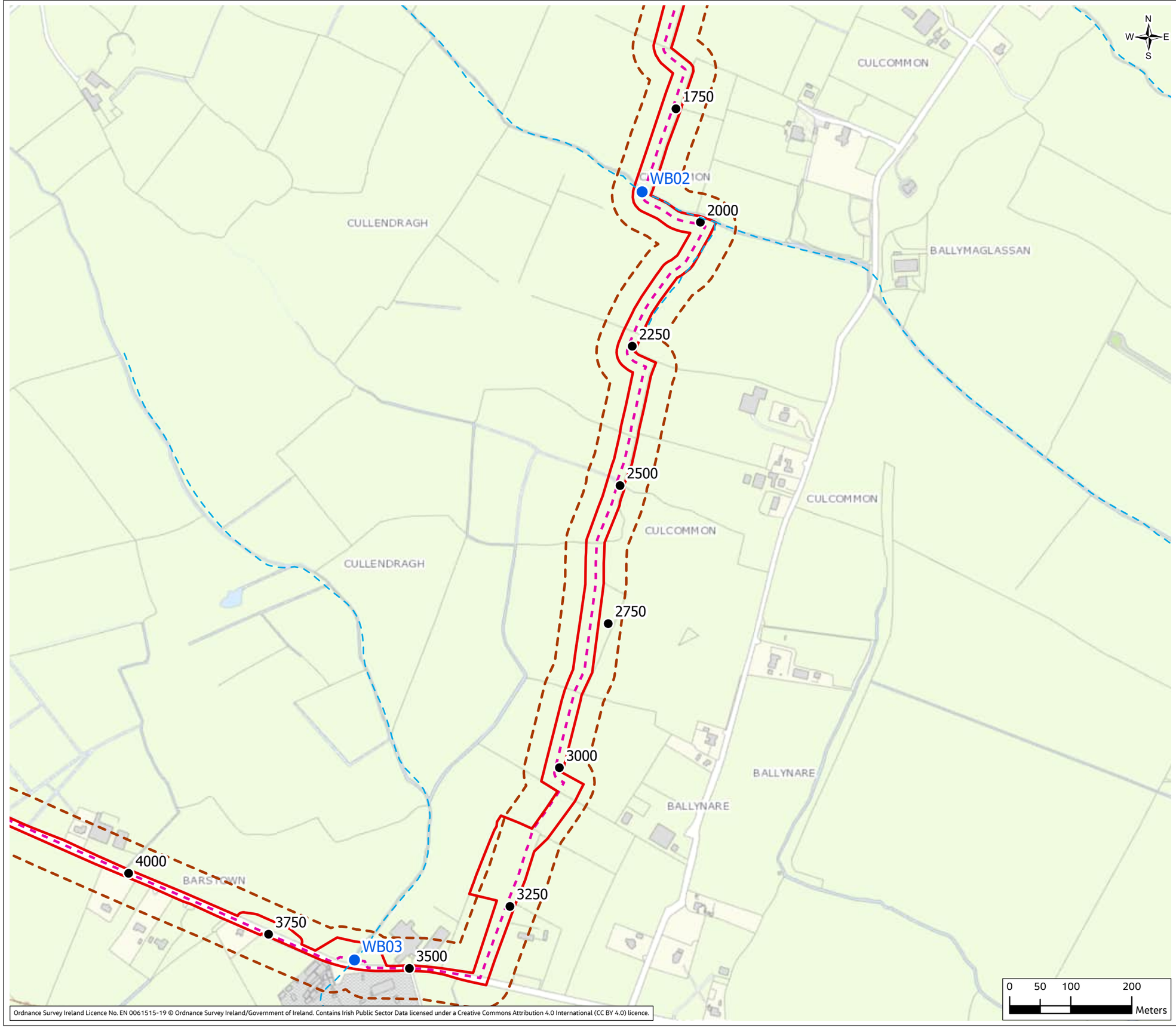
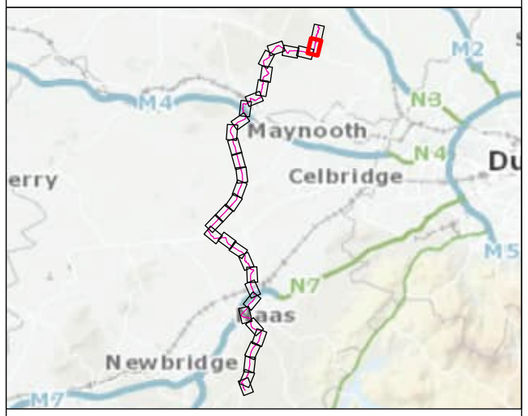


Appendix B; Figure 2.2



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 2 of 33

Drawing Status: Final

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Client No.	CP966	

Drawing No. 321084AH-JAC-ZZ-XX-DR-K-3002

WOODCOCKSTOWN

WARRENSTOWN

CULLENDRAGH

BARSTOWN

5000

4750

4500

4250

4000

3750

3500

3250

3000

2750

2500

WB03

N

W

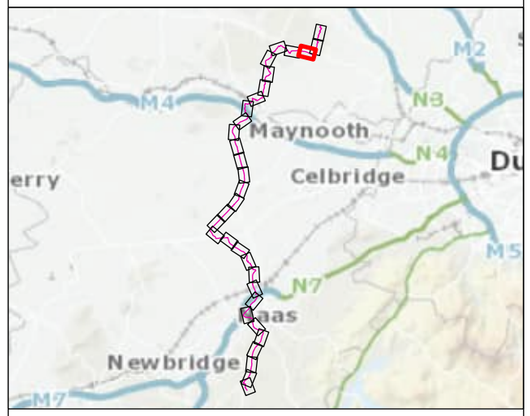
E

S

0 50 100 200

Meters

Appendix B; Figure 2.3



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Kildare-Meath Grid Upgrade

Drawing Title

Cable route, with chainage and waterbody numbers

Sheet 3 of 33

Drawing Status: Final

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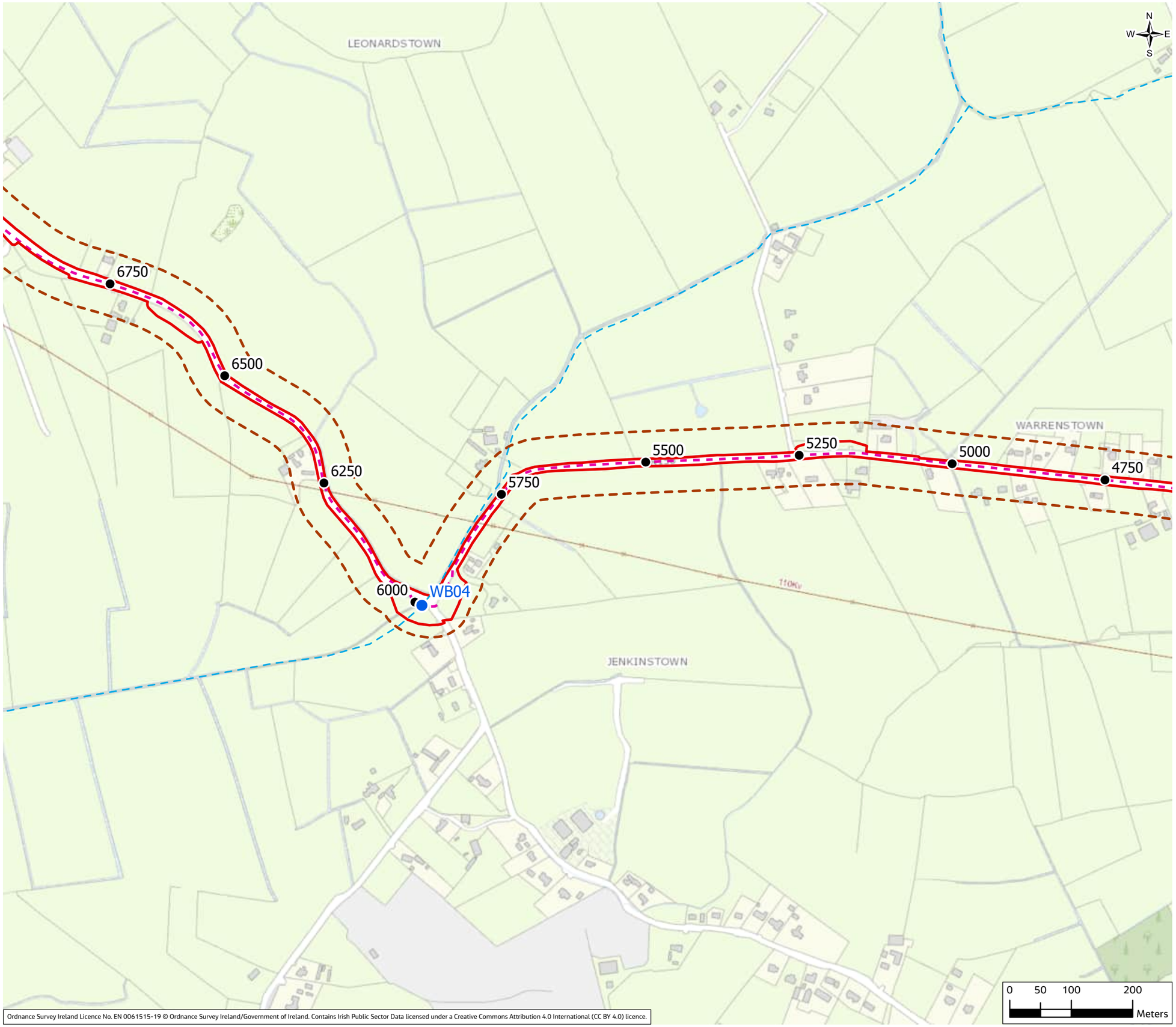

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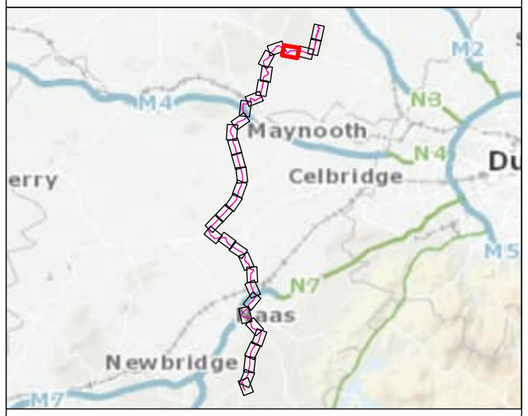

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 4 of 33

Drawing Status: Final

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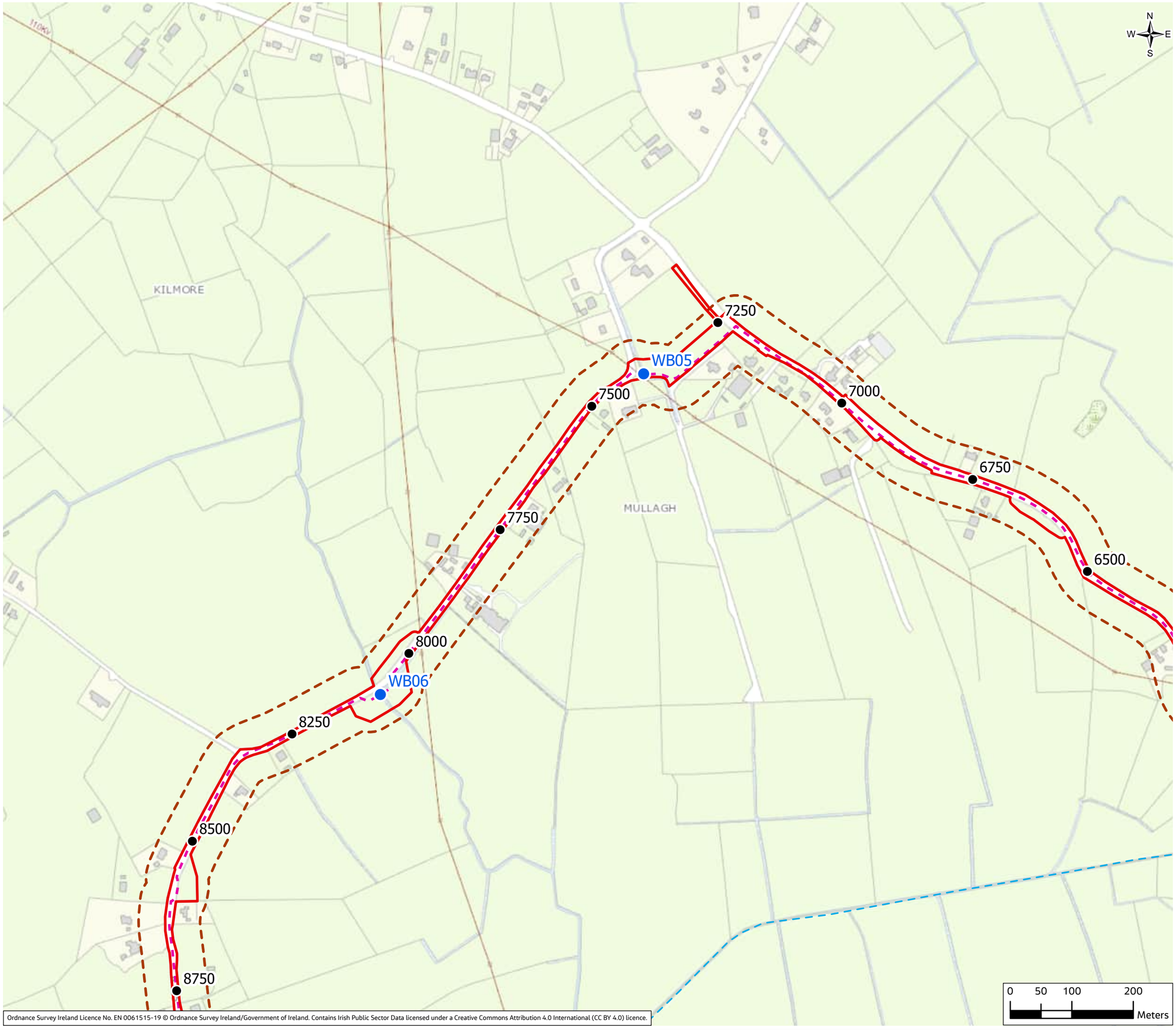
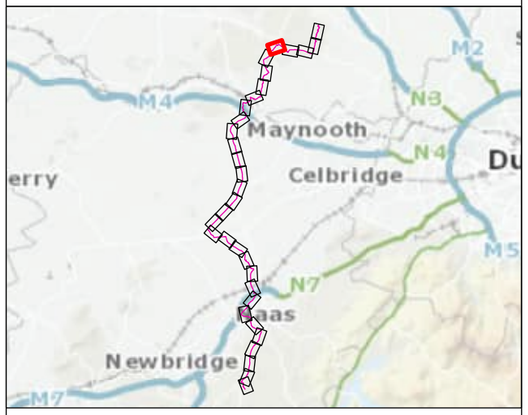


Appendix B; Figure 2.5



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- 2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 5 of 33

Drawing Status: Final

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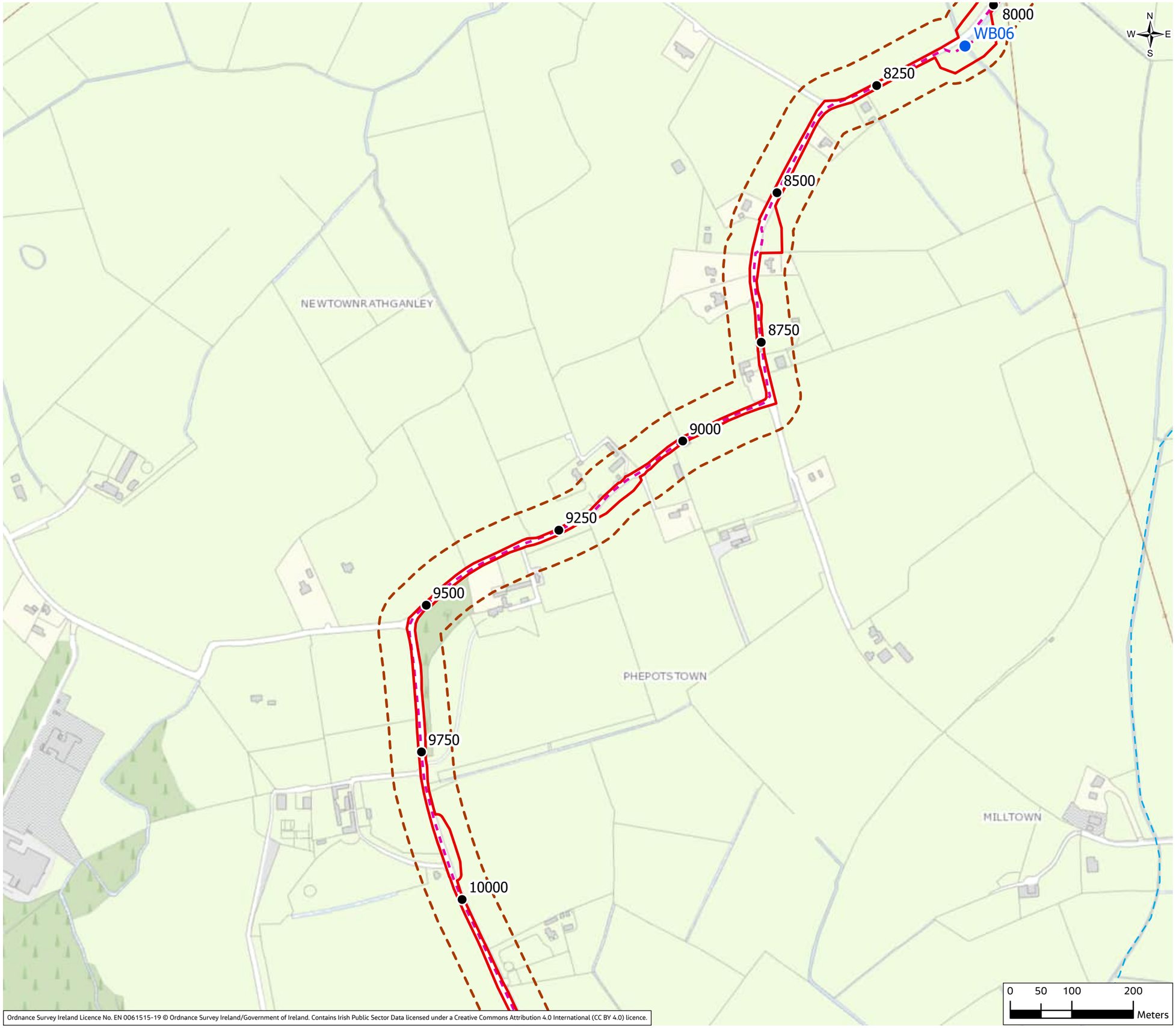

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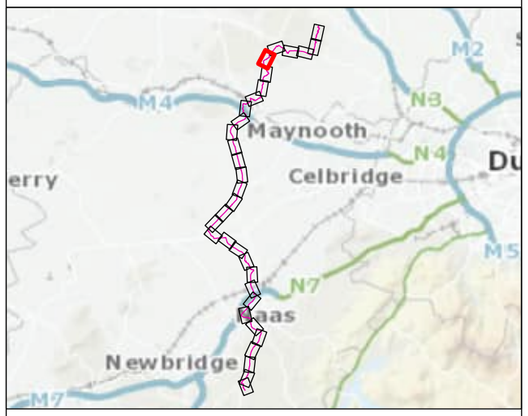

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 6 of 33

Drawing Status: Final

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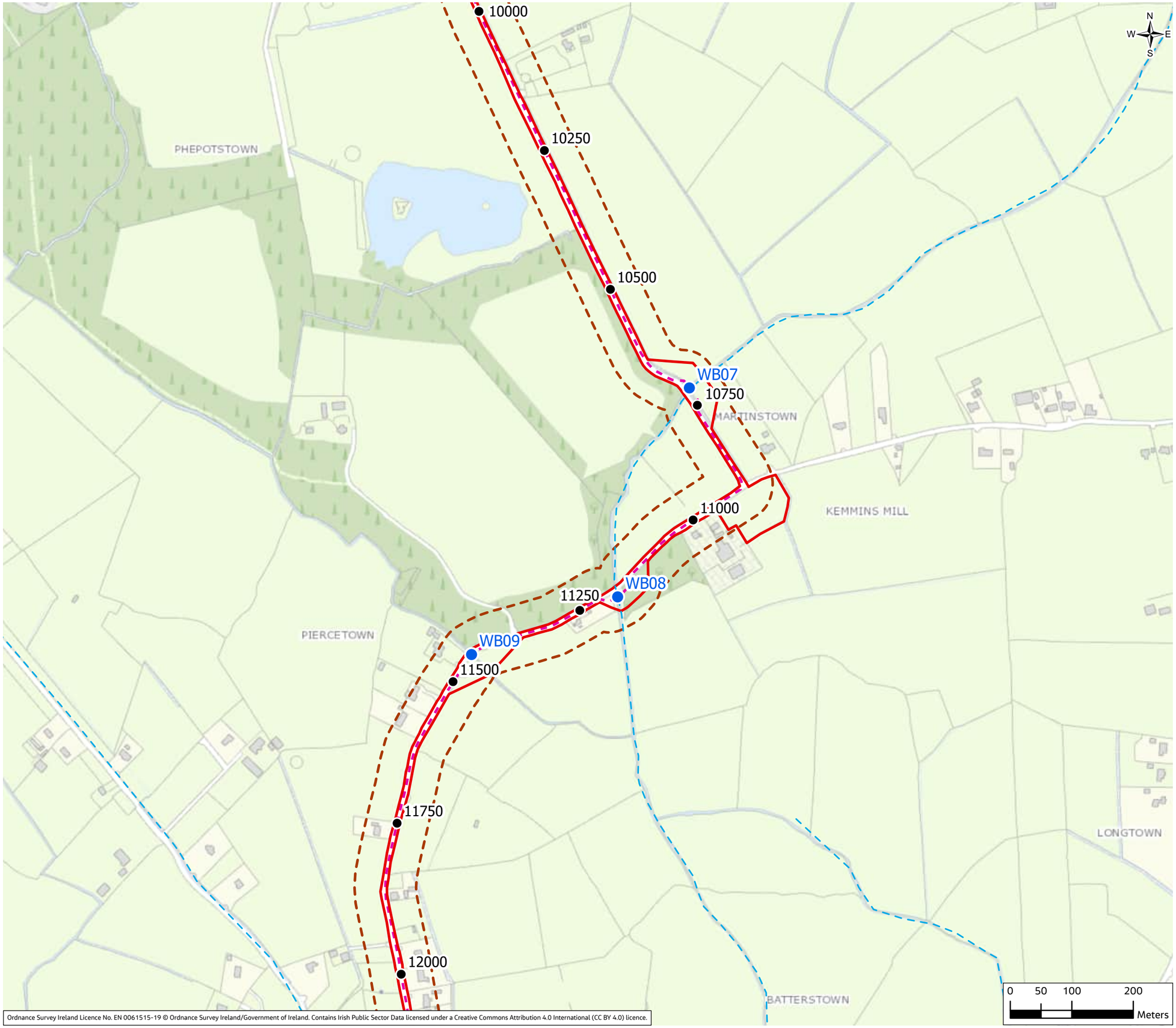

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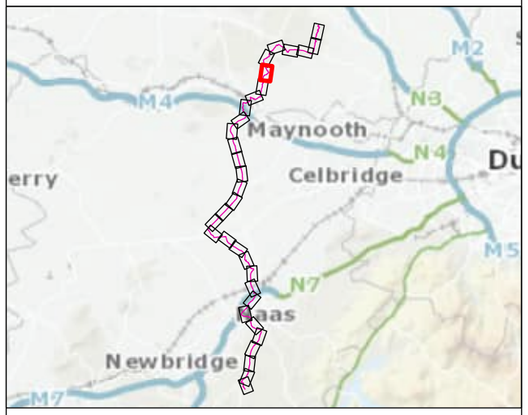

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 7 of 33

Drawing Status: Final

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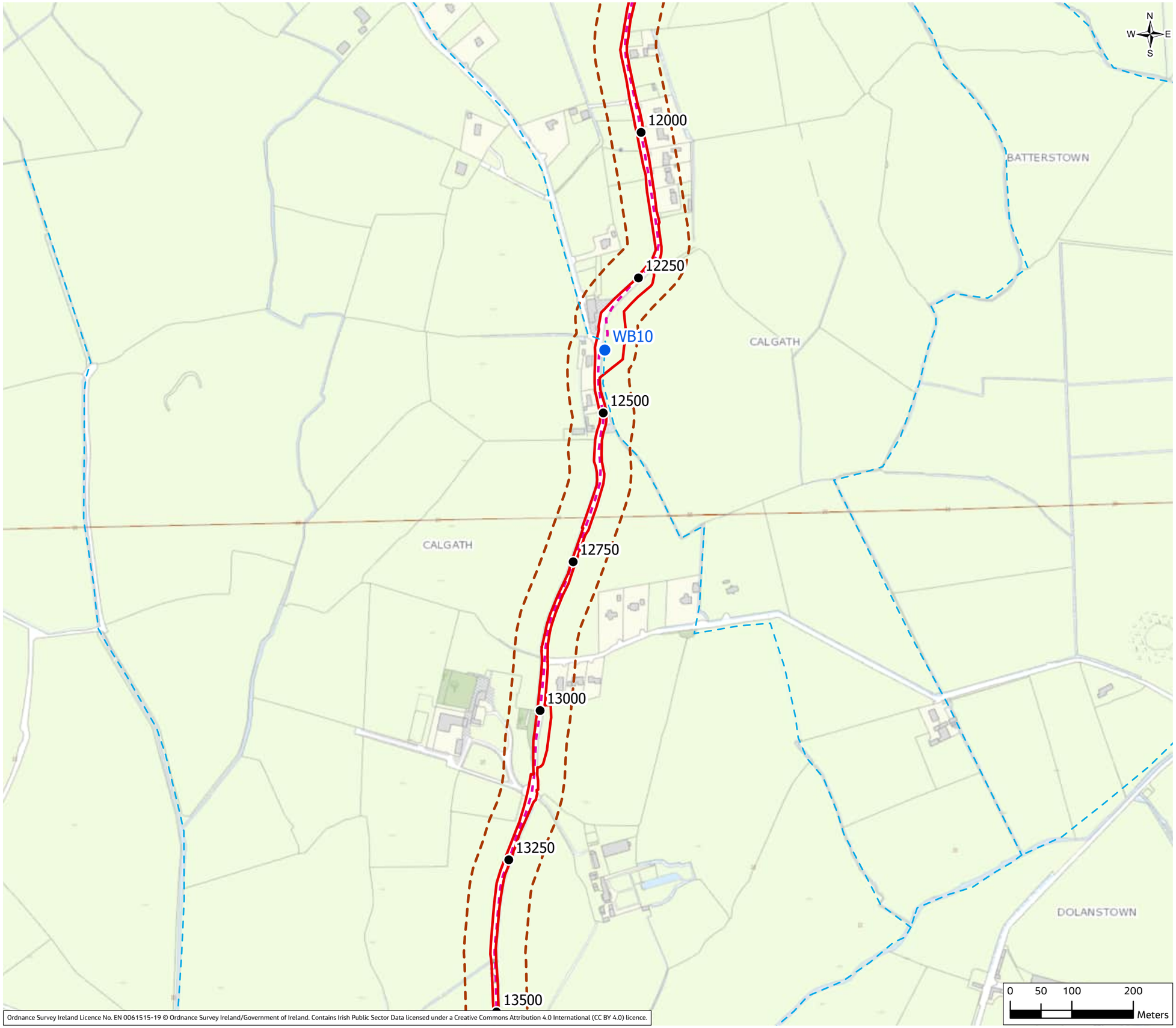

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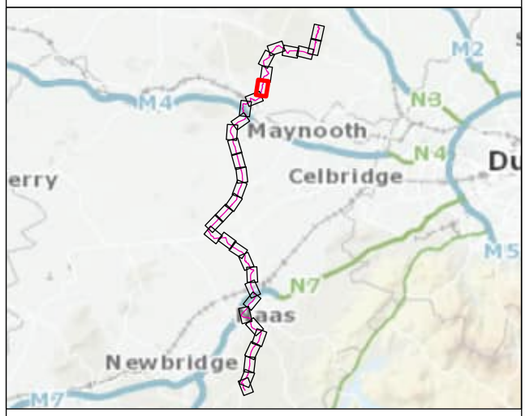

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 8 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
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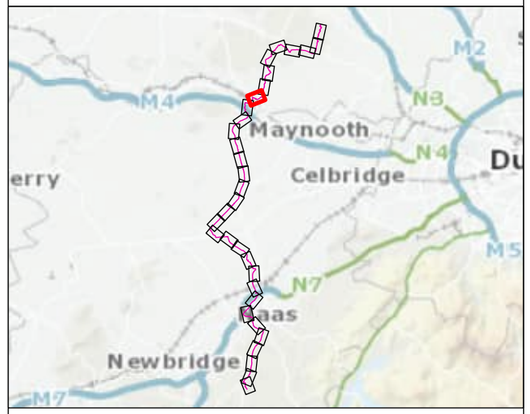
Client No.	CP966	

Drawing No. 321084AH-JAC-ZZ-XX-DR-K-3008

Appendix B; Figure 2.9



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- 2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 9 of 33

Drawing Status: Final

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Client No.	CP966	

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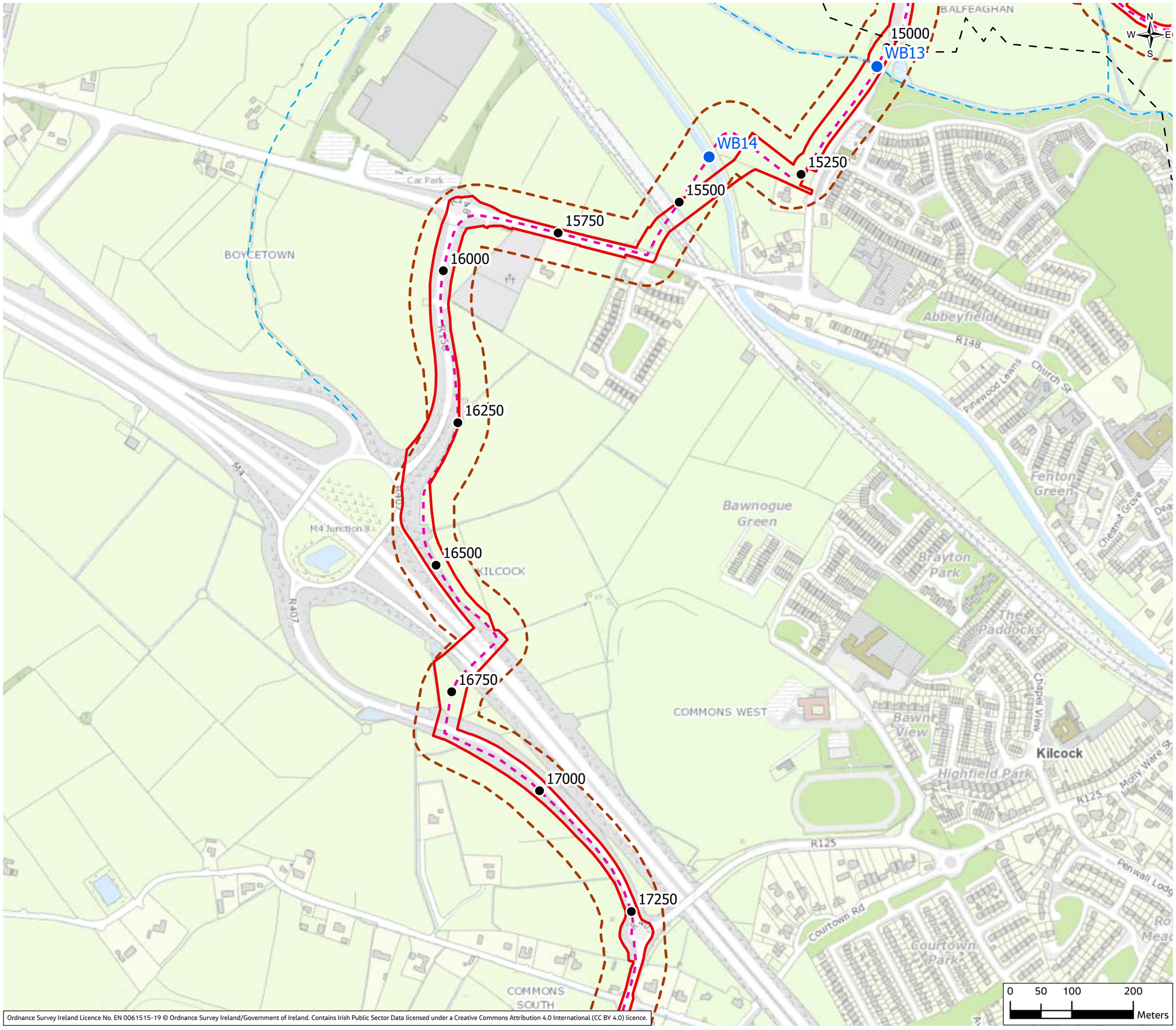

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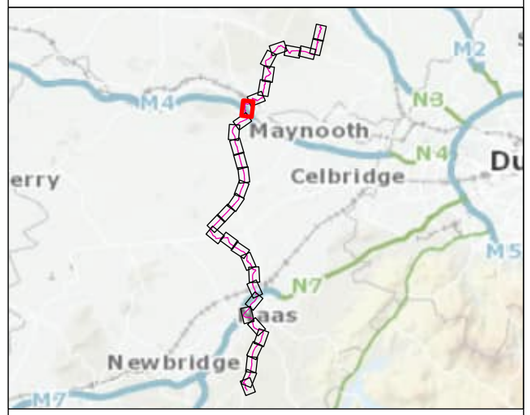

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 10 of 33

Drawing Status: Final

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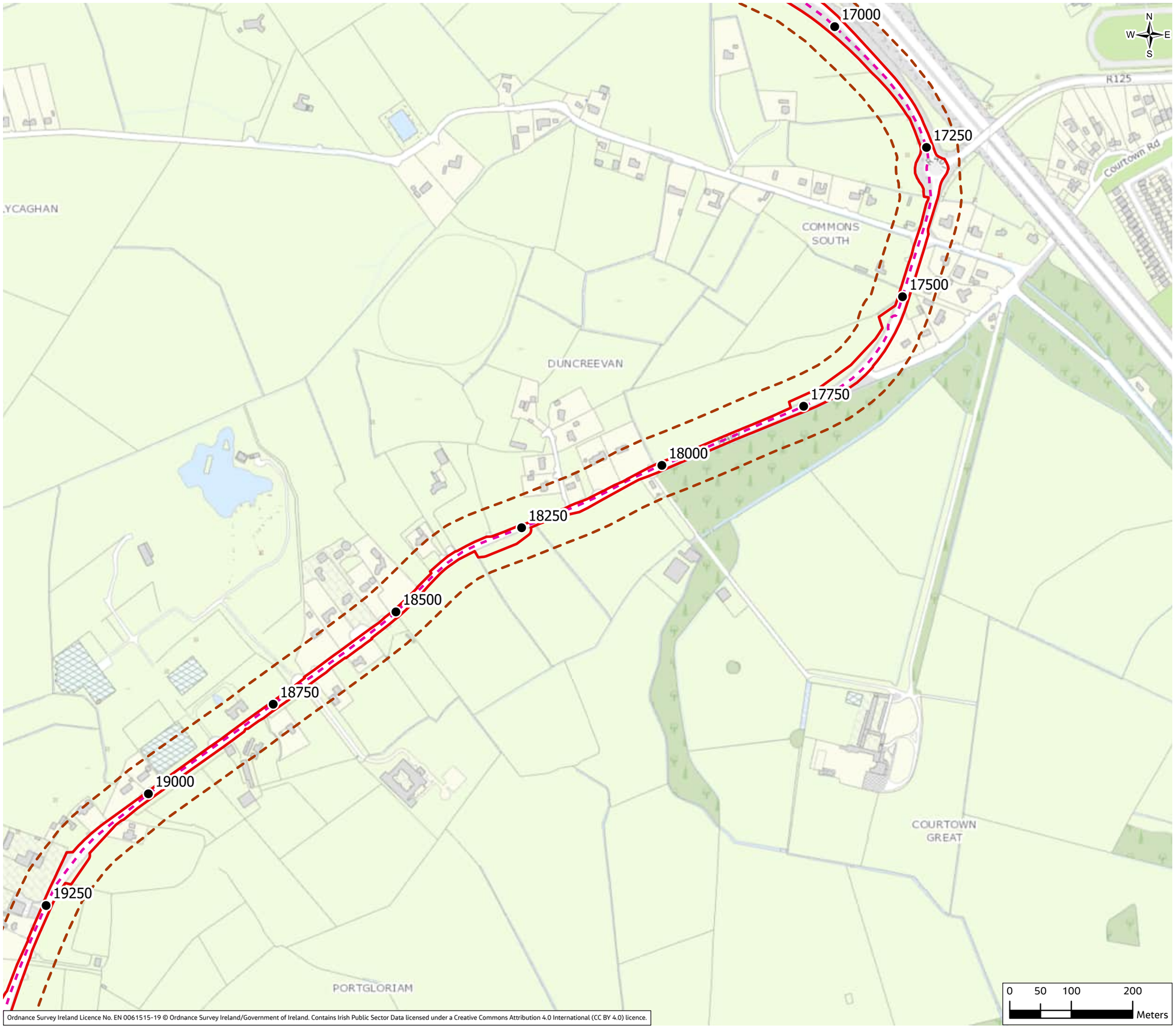

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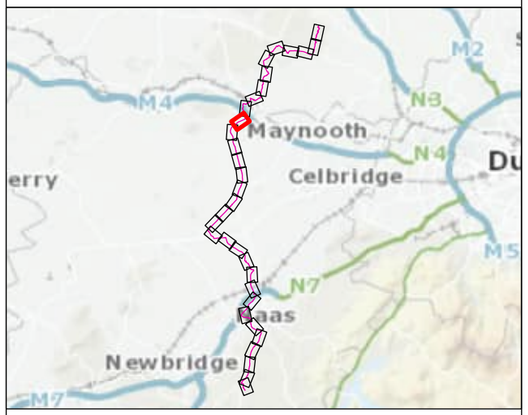

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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www.jacobs.com

Project: Kildare-Meath Grid Upgrade

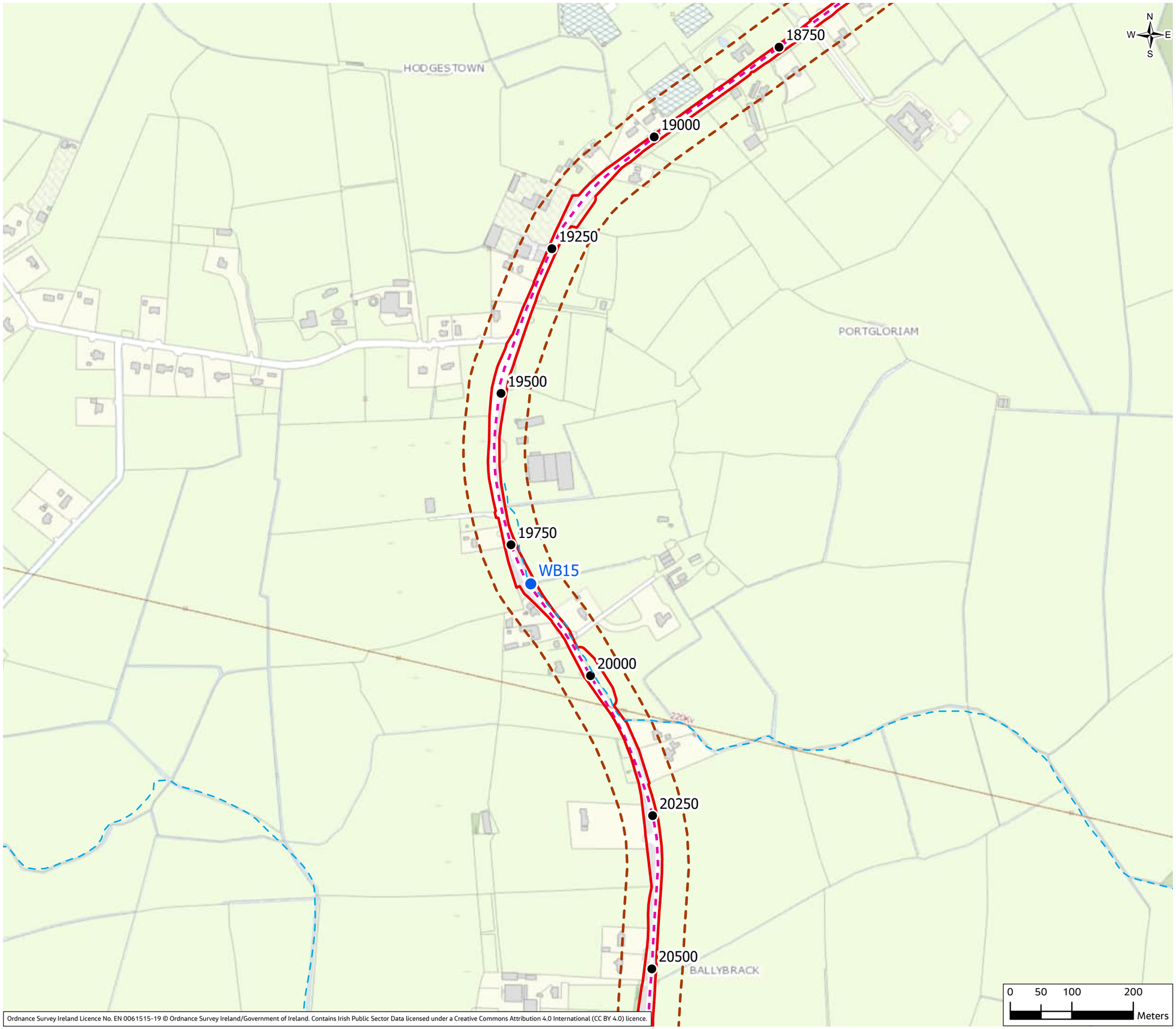
Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 11 of 33

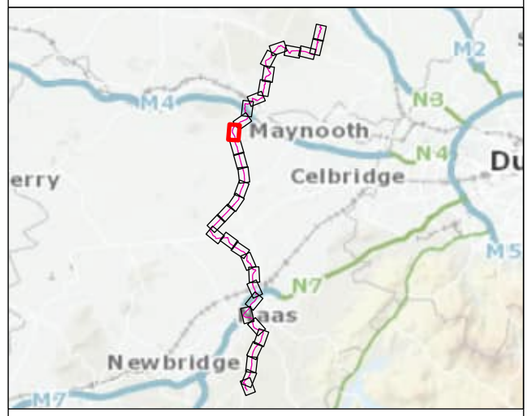
Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No. 321084AH-JAC-ZZ-XX-DR-K-3011



Appendix B; Figure 2.12



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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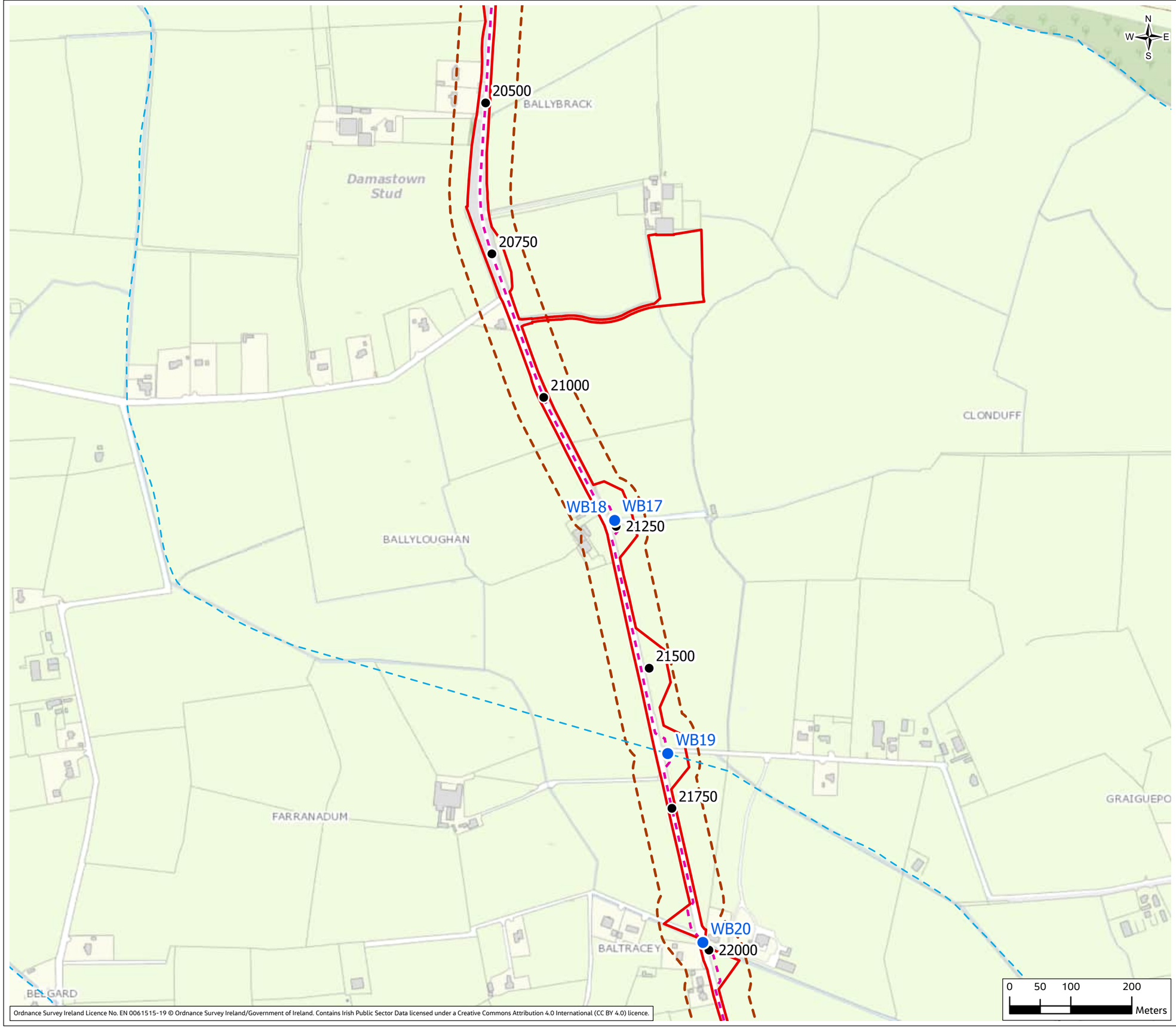
Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

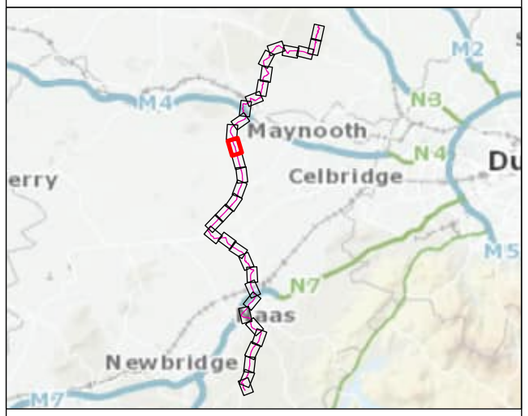
Sheet 12 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	
Drawing No.	321084AH-JAC-ZZ-XX-DR-K-3012	



Appendix B; Figure 2.13



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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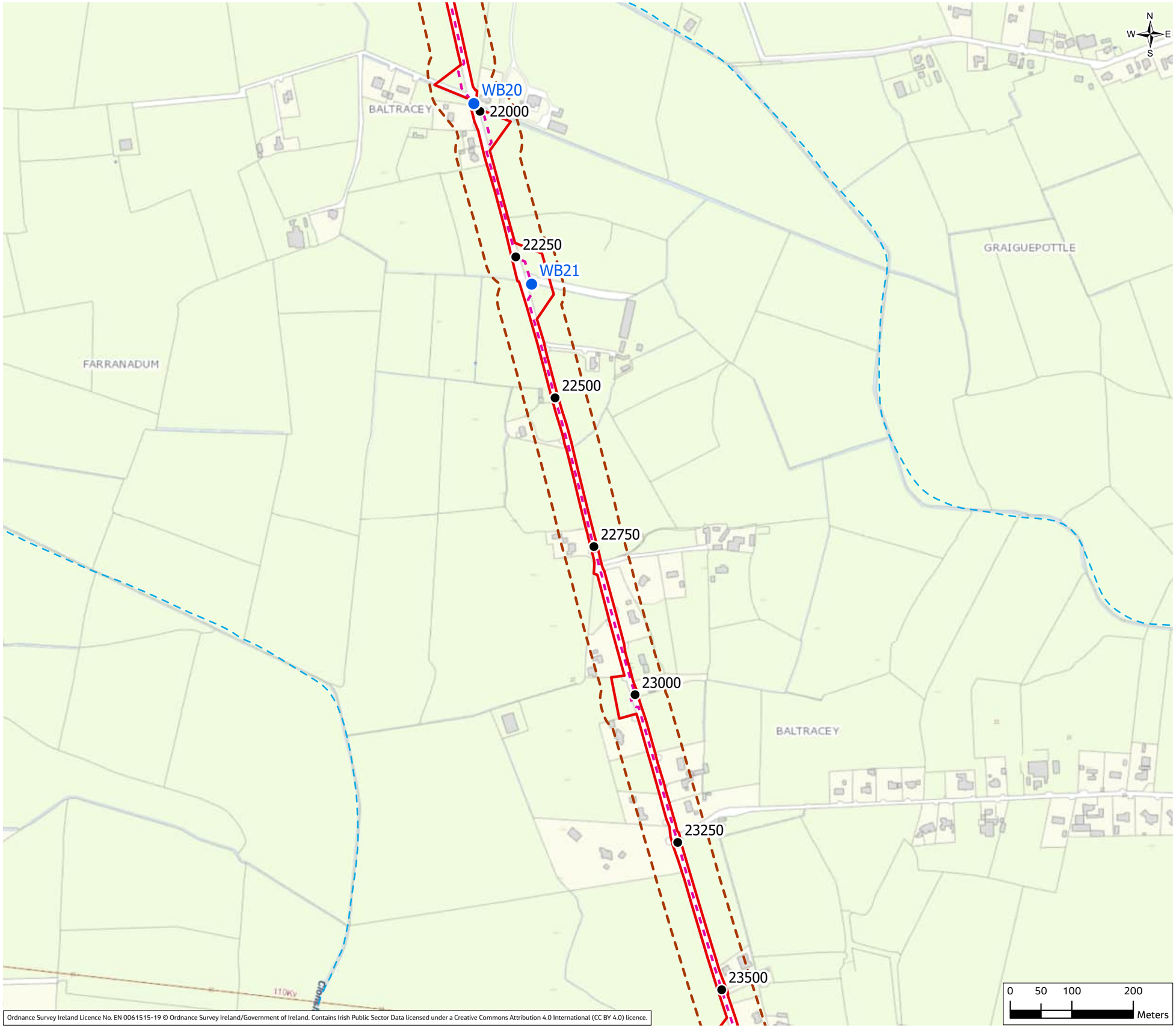
Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 13 of 33

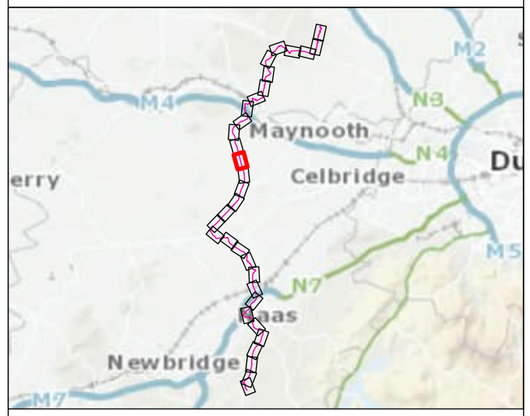
Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3013



Appendix B; Figure 2.14



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 14 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
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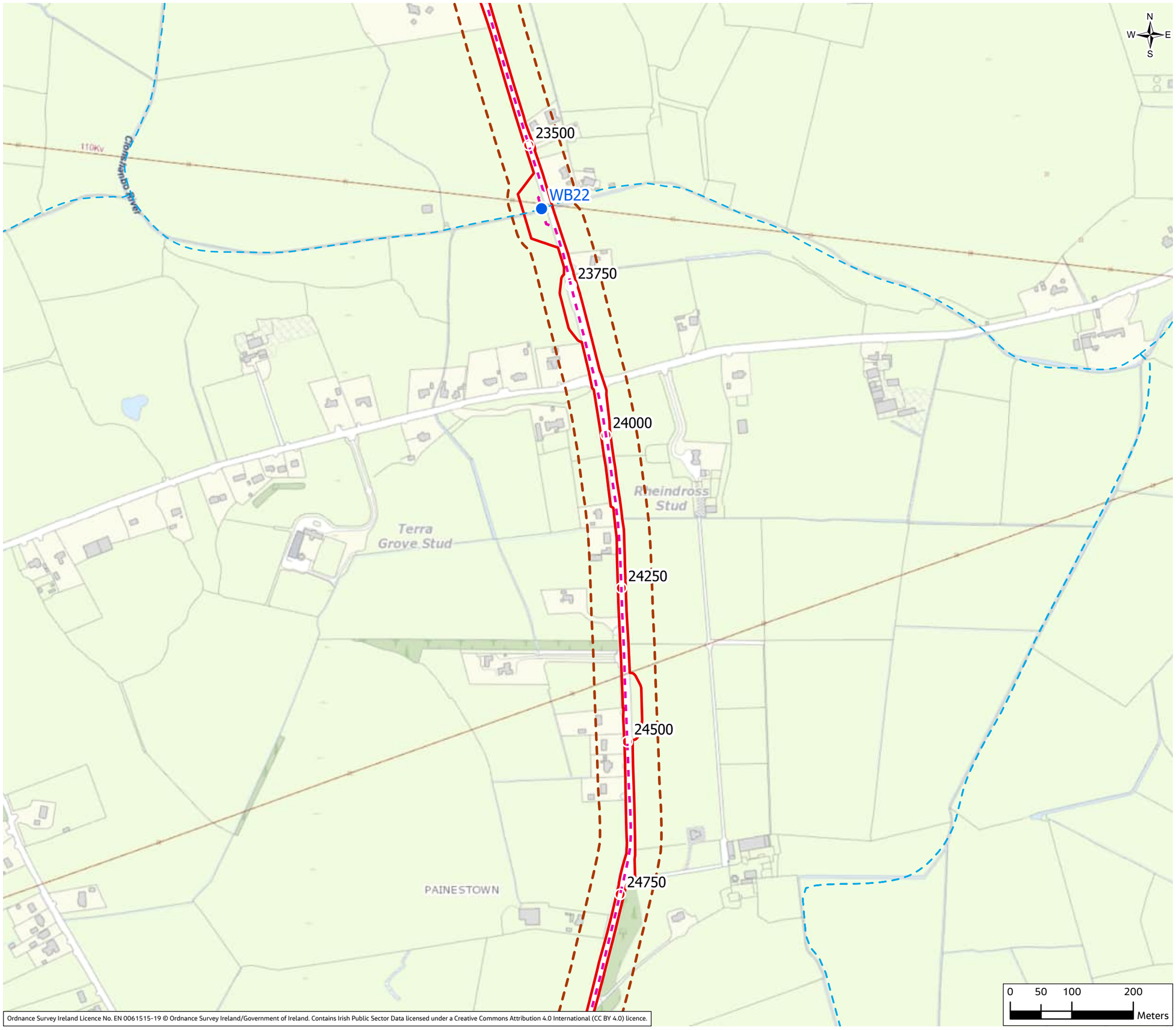
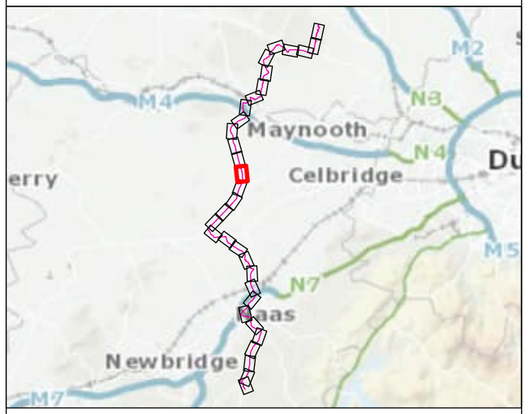
Client No.	CP966	

Drawing No. 321084AH-JAC-ZZ-XX-DR-K-3014



Appendix B; Figure 2.15



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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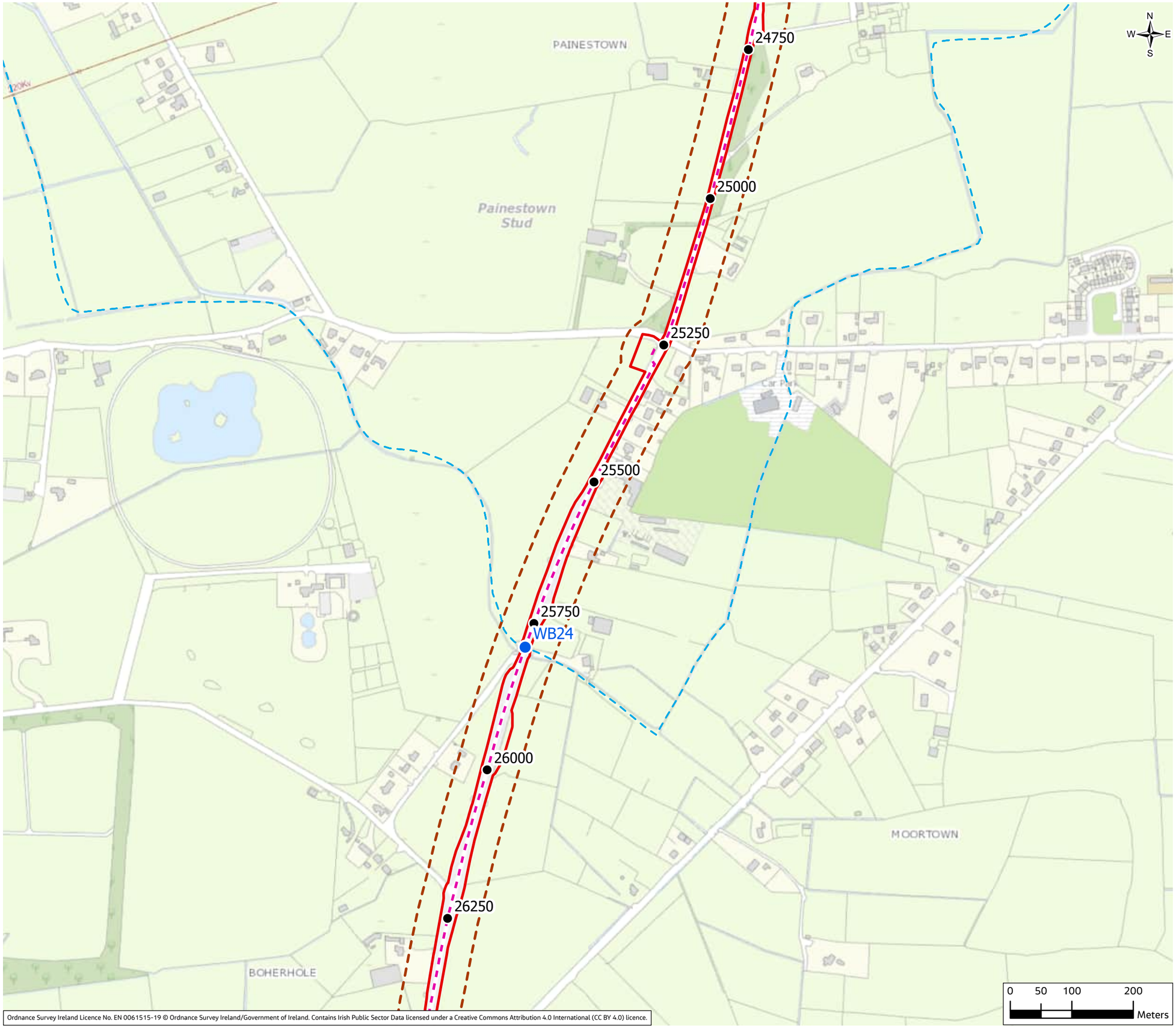
Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 15 of 33

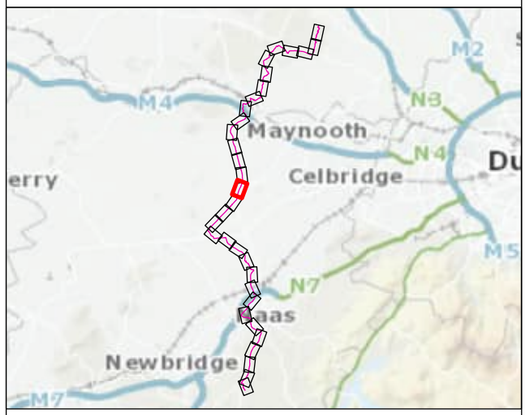
Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3015



Appendix B; Figure 2.16



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

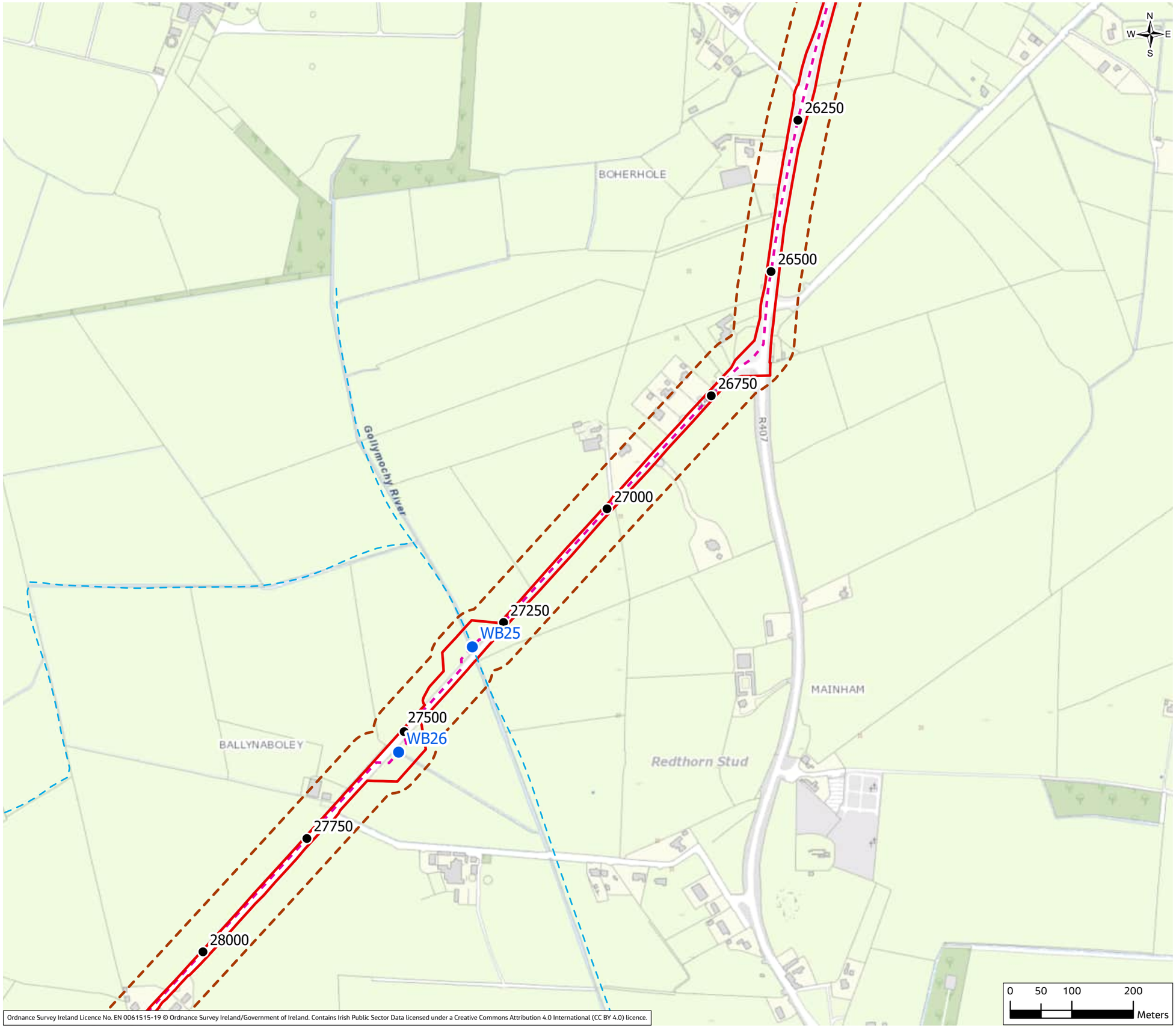
Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 16 of 33

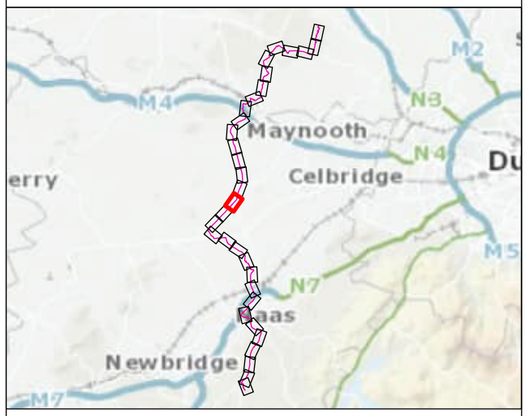
Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3016



Appendix B; Figure 2.17



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

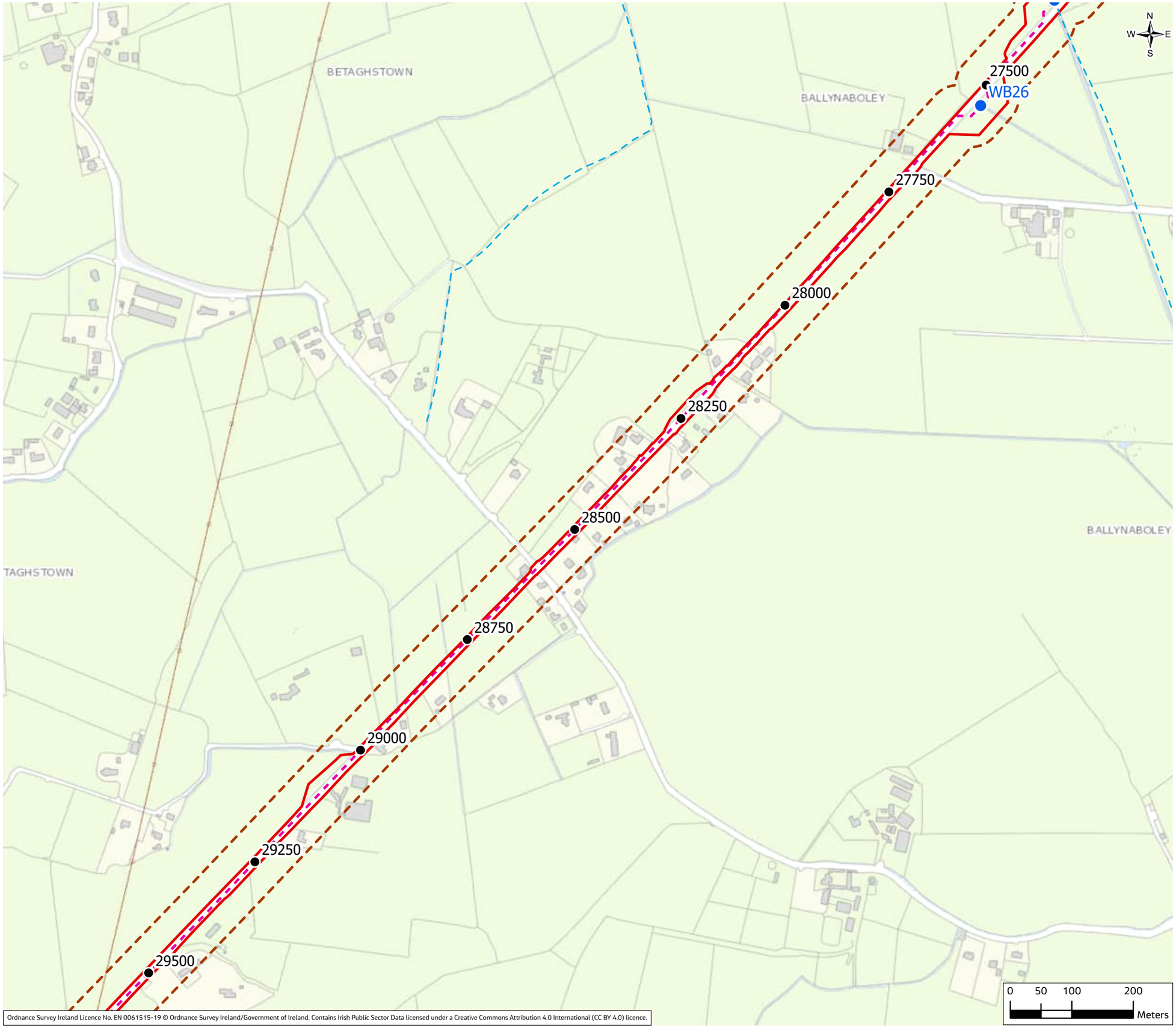
Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 17 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No. 321084AH-JAC-ZZ-XX-DR-K-3017



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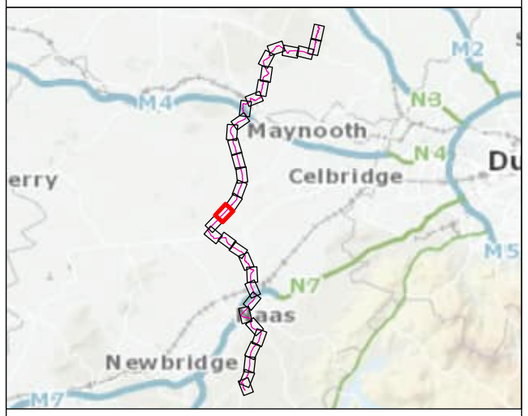

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 18 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
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Client No.	CP966	

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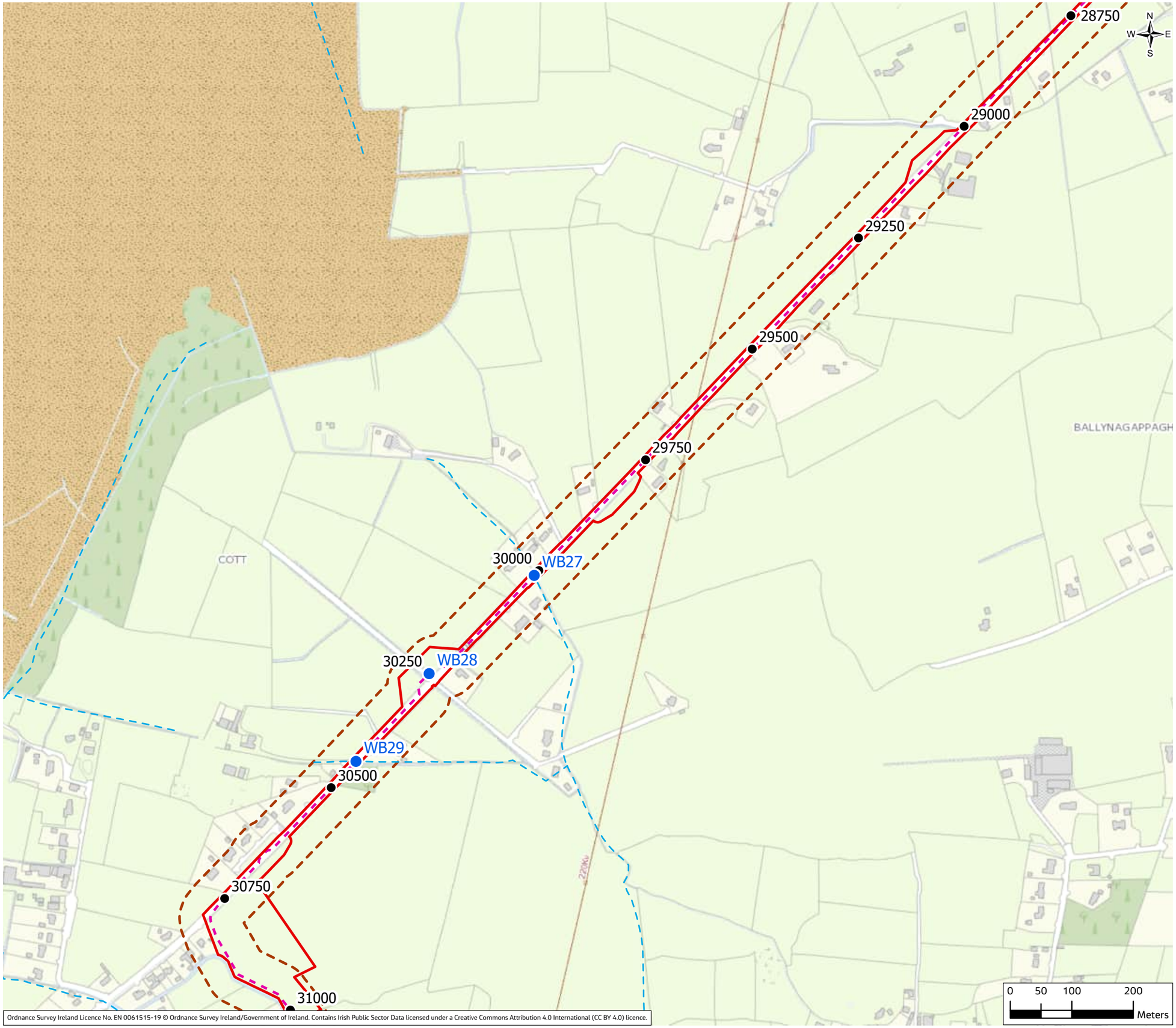

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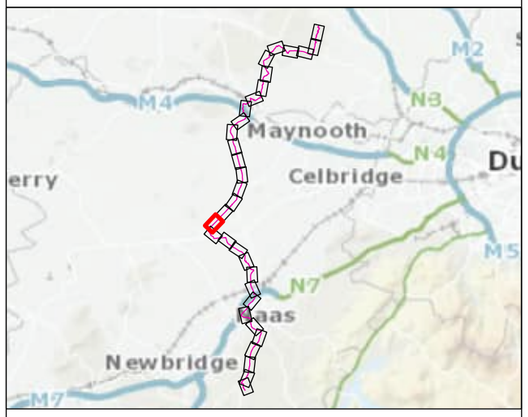
Appendix B; Figure 2.19



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 19 of 33

Drawing Status: Final

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Client No.	CP966	

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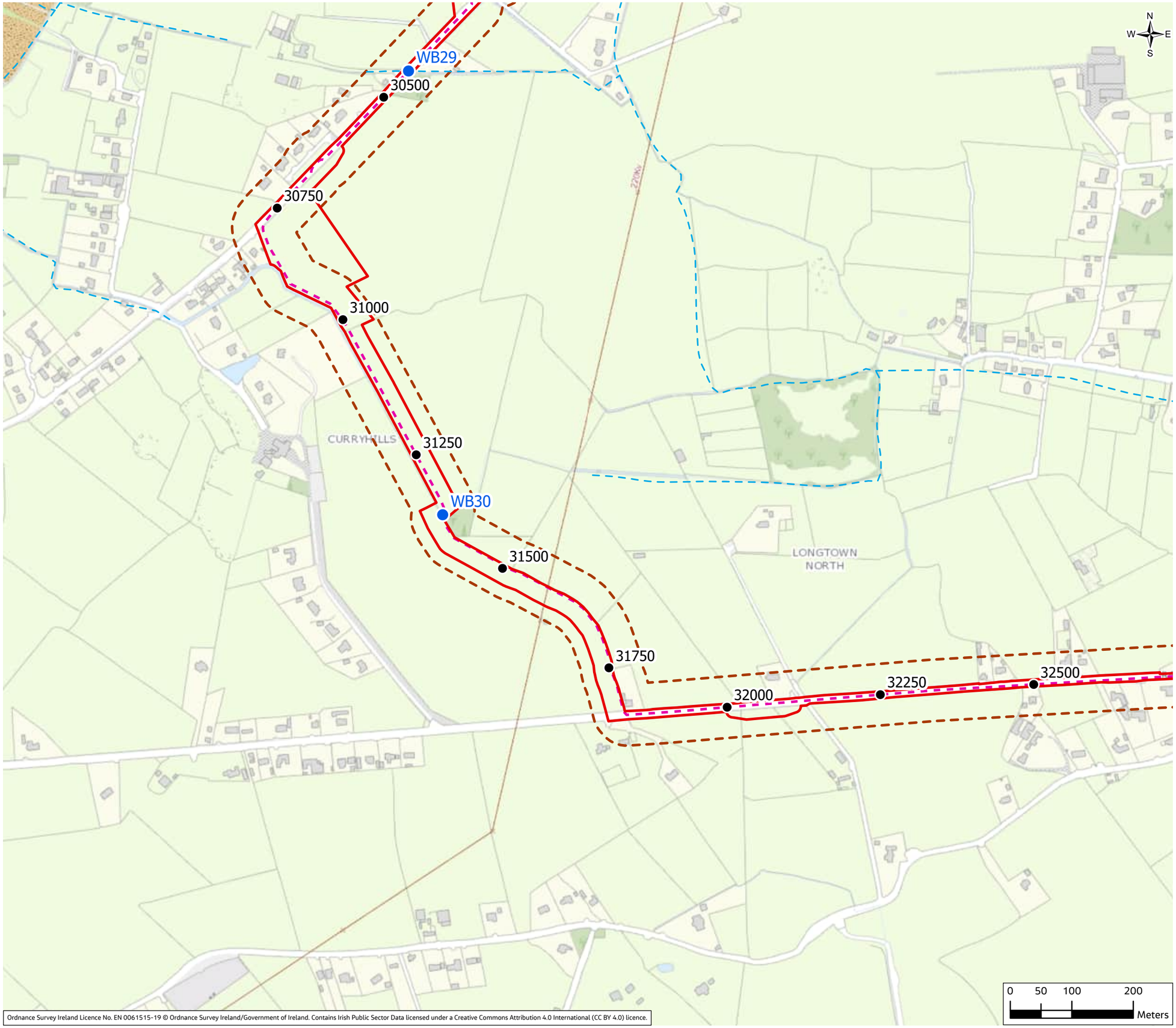

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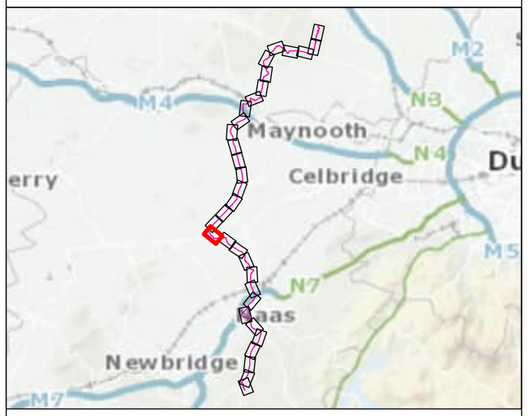

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 20 of 33

Drawing Status: Final

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Client No.	CP966	
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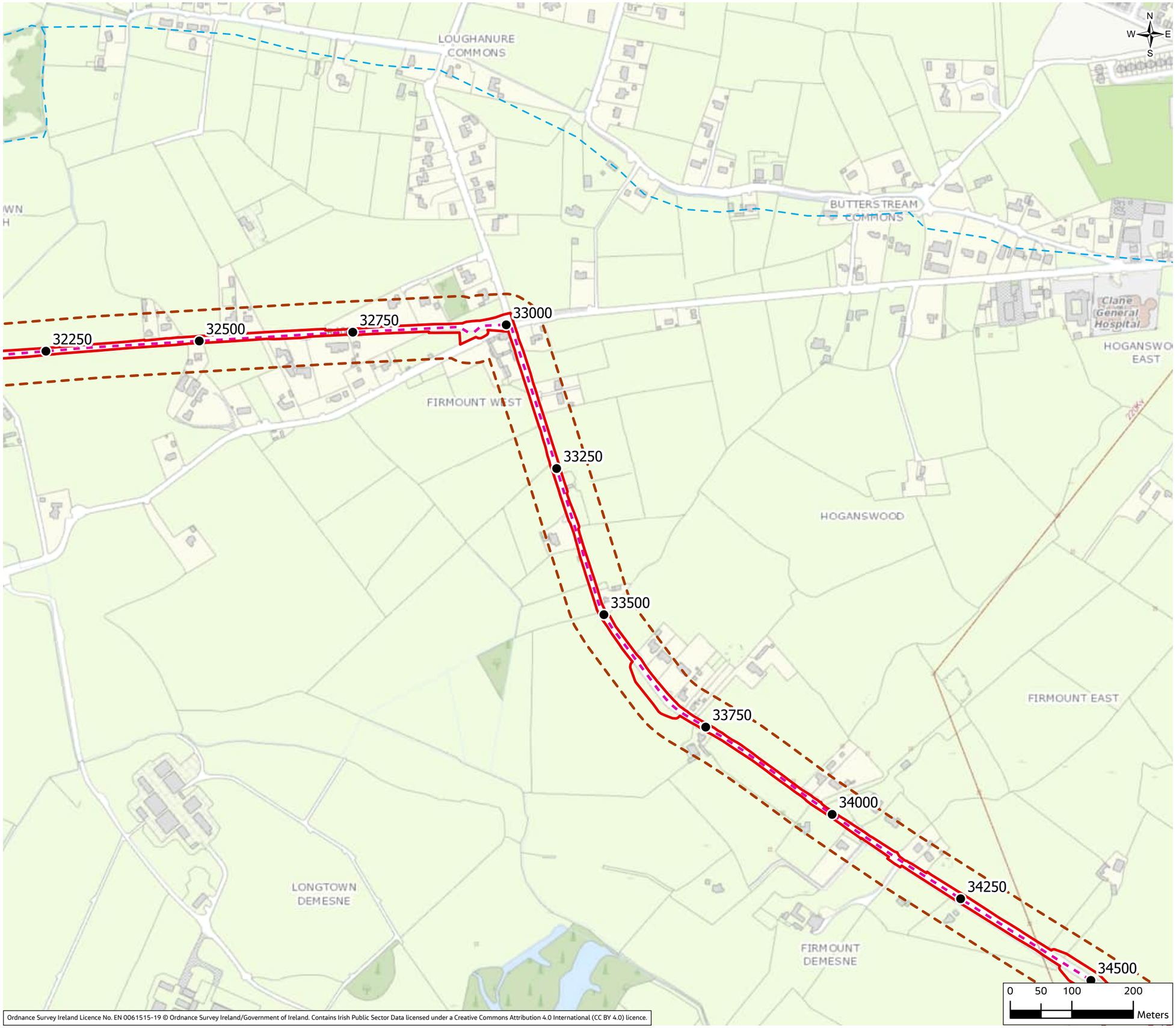

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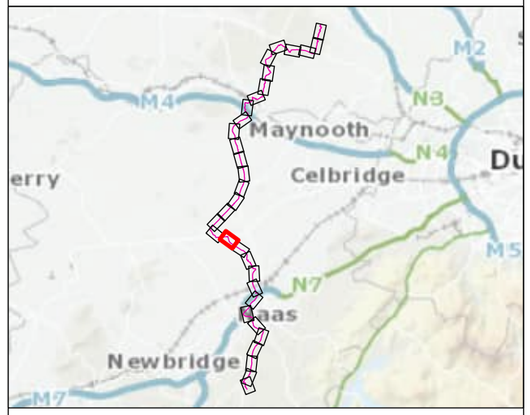

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 21 of 33

Drawing Status: Final

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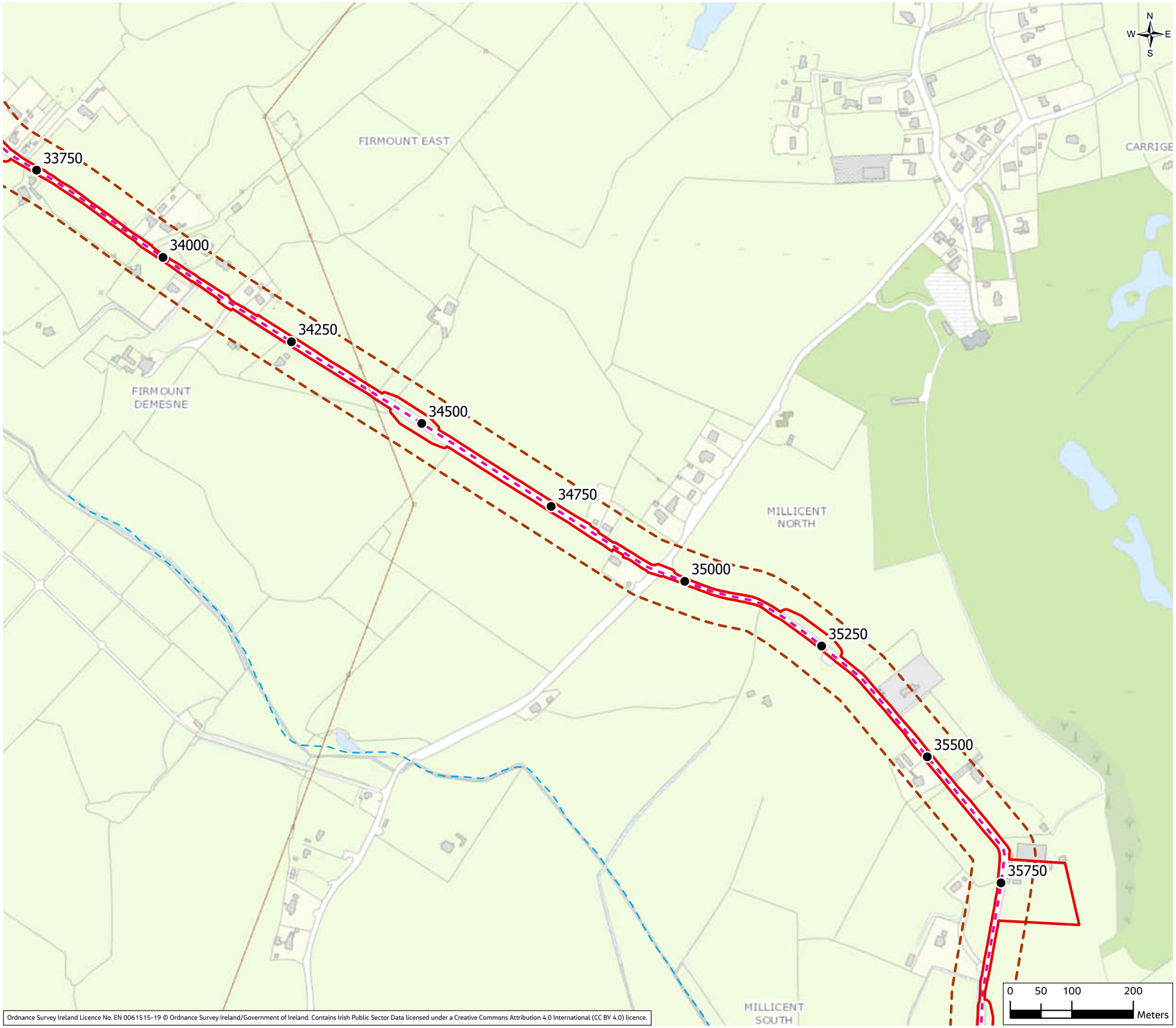
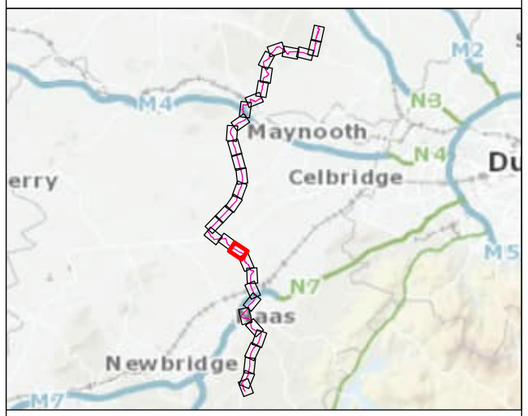
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No. 321084AH-JAC-ZZ-XX-DR-K-3021



Appendix B; Figure 2.22



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 22 of 33

Drawing Status: Final

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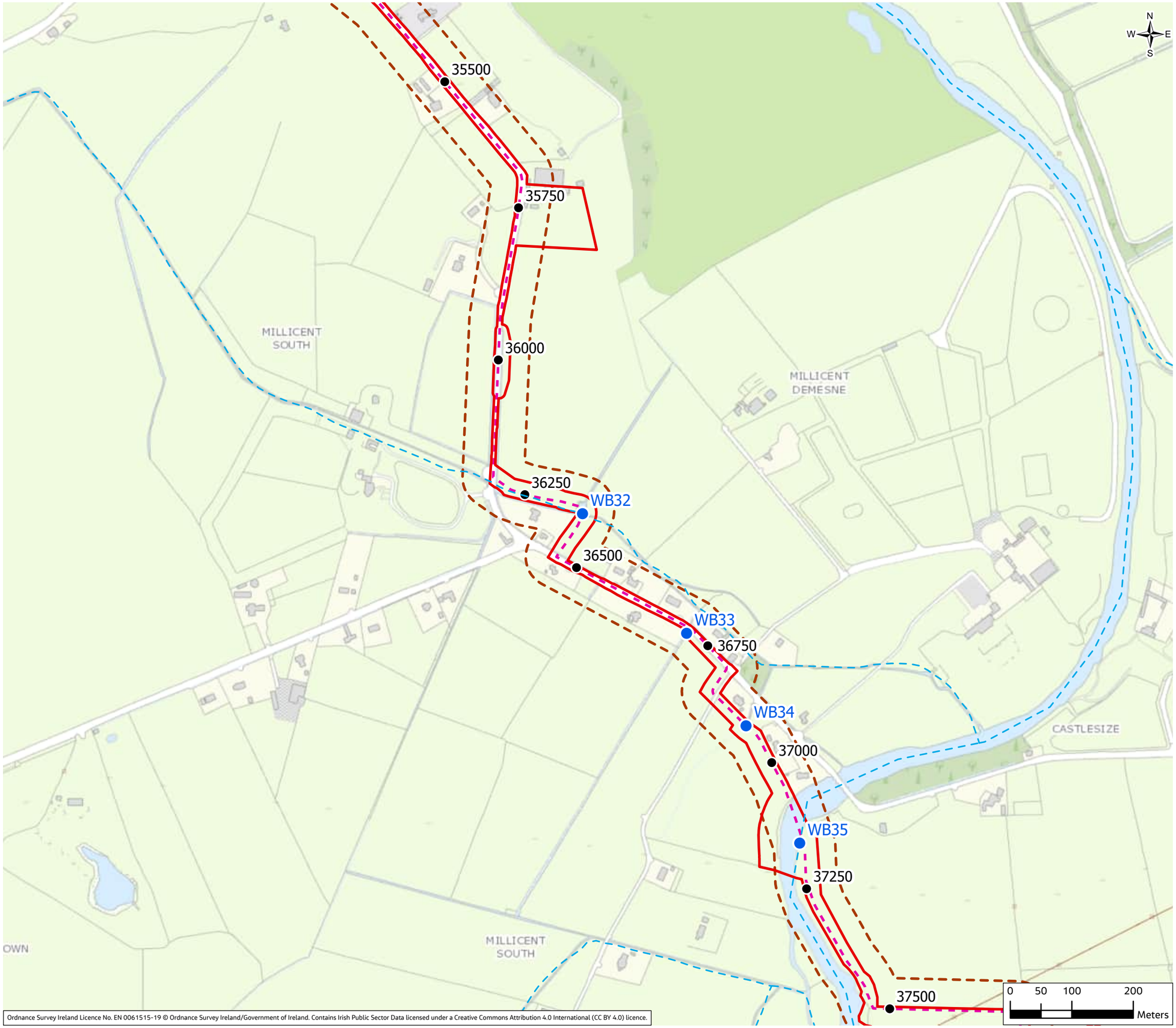
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3022



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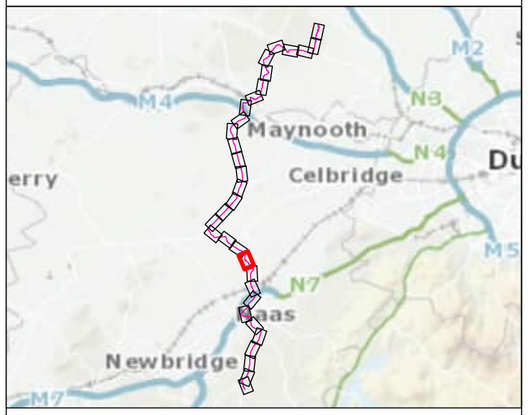

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 23 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	
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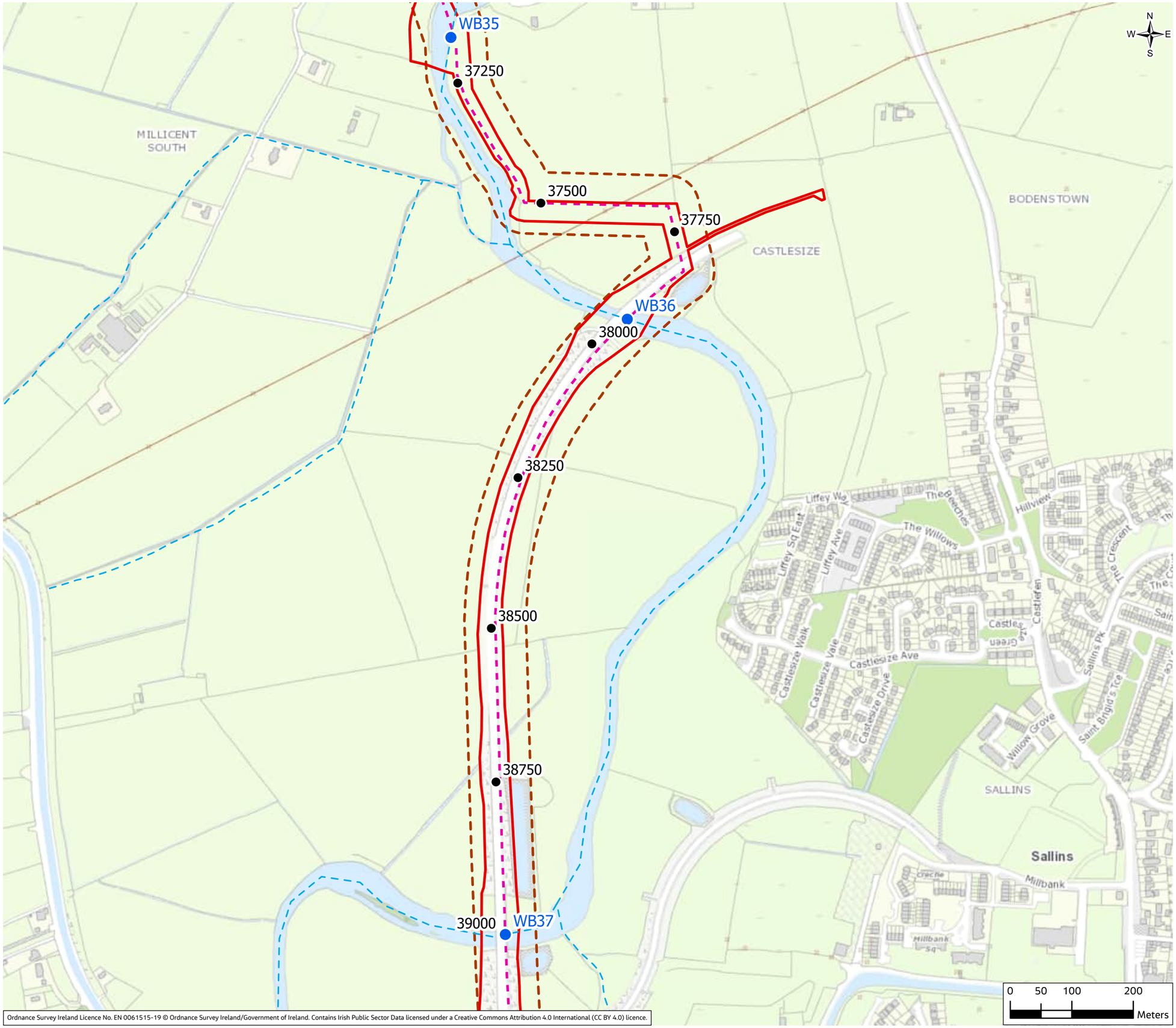
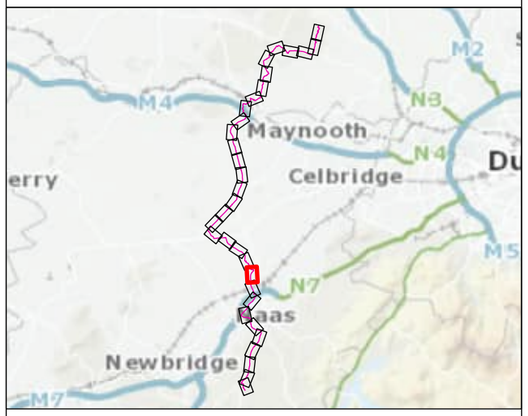


Appendix B; Figure 2.24



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 24 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
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Client No.	CP966	
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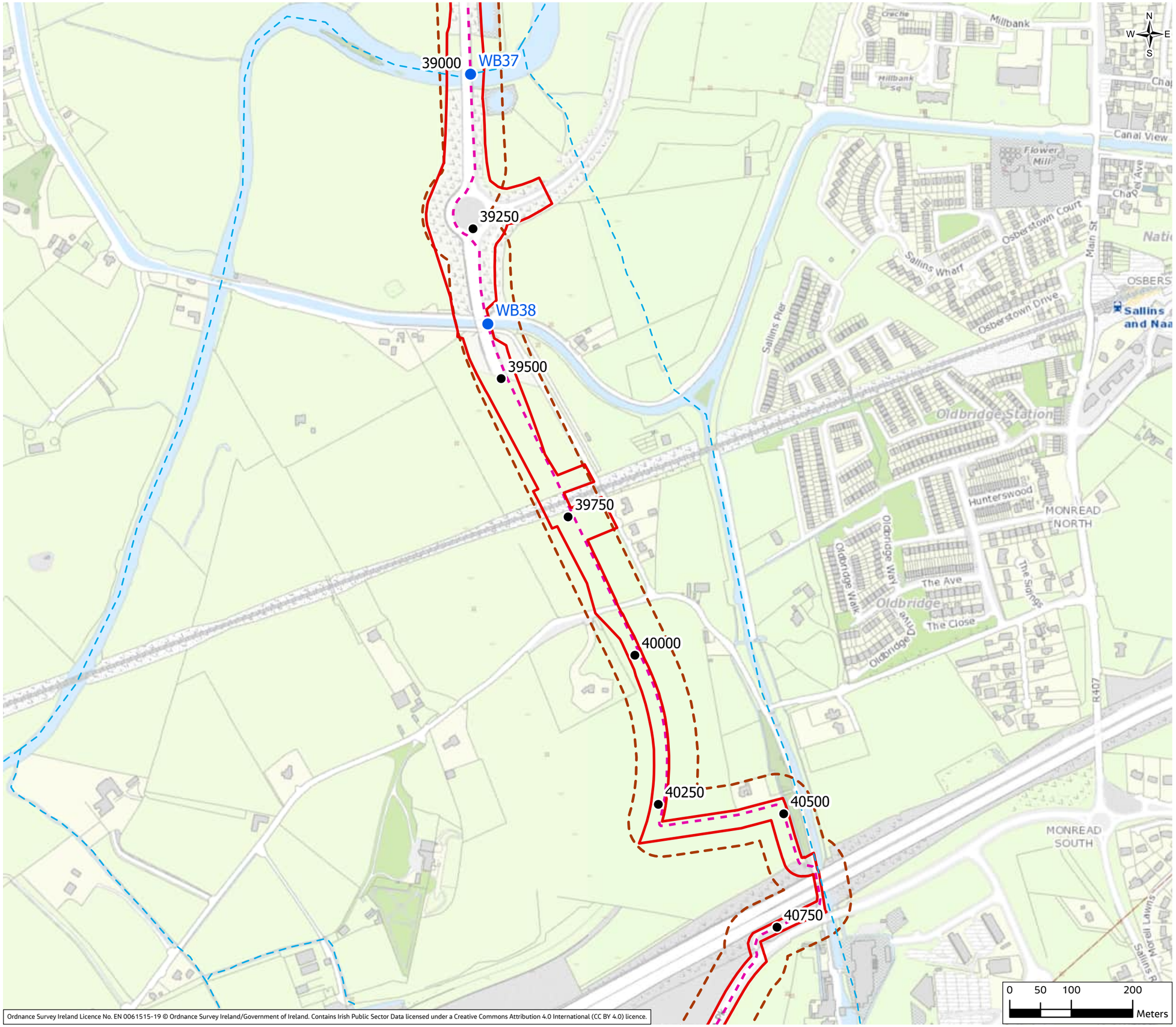
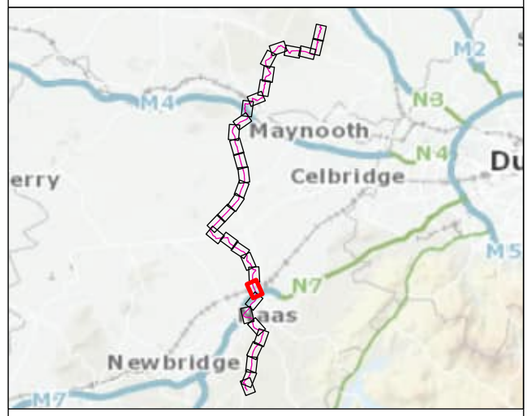


Appendix B; Figure 2.25



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 25 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
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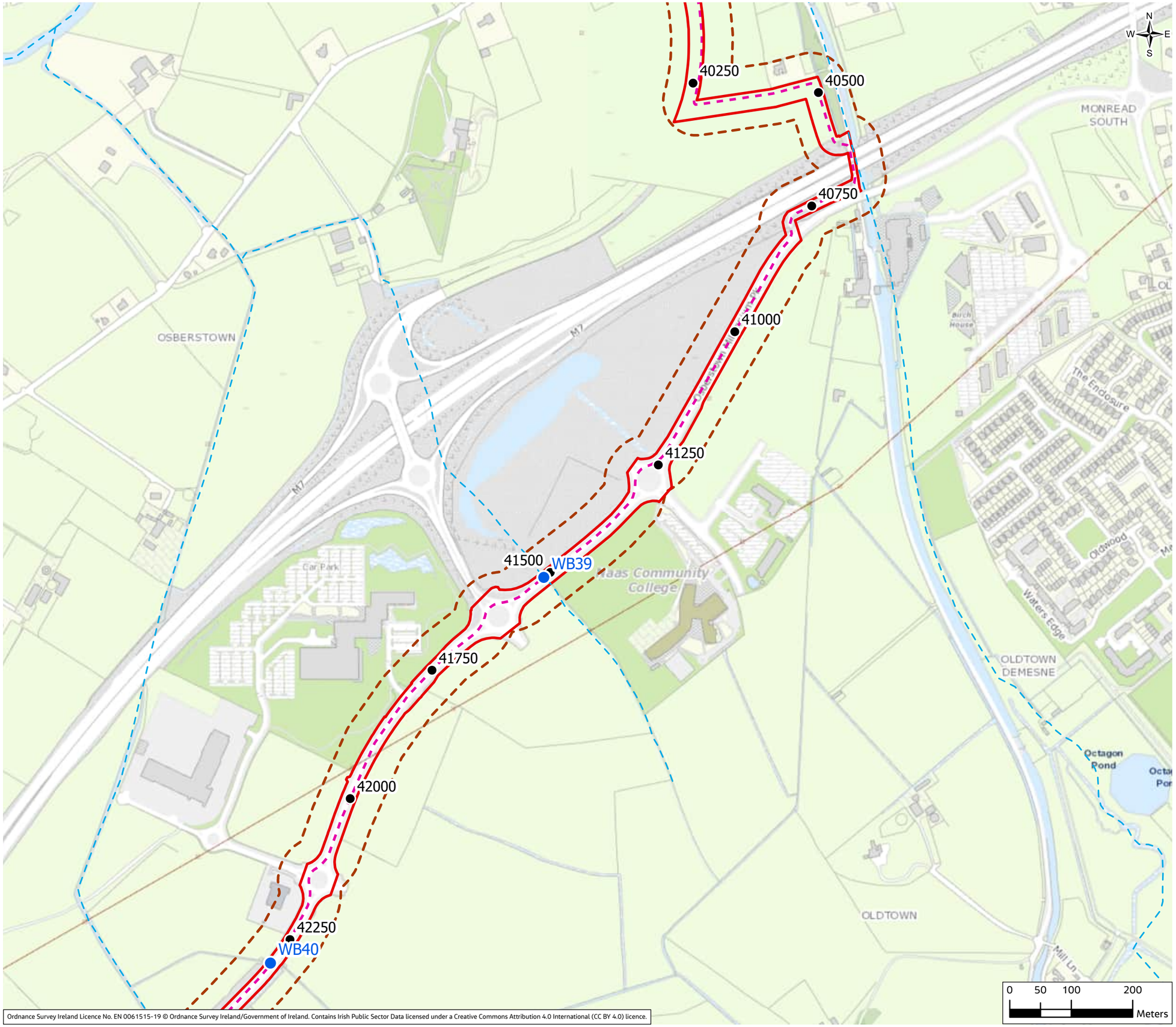
Client No.	CP966	

Drawing No. 321084AH-JAC-ZZ-XX-DR-K-3025



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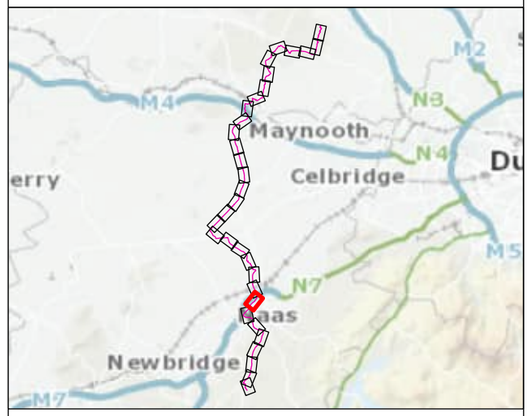

Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 26 of 33

Drawing Status: Final

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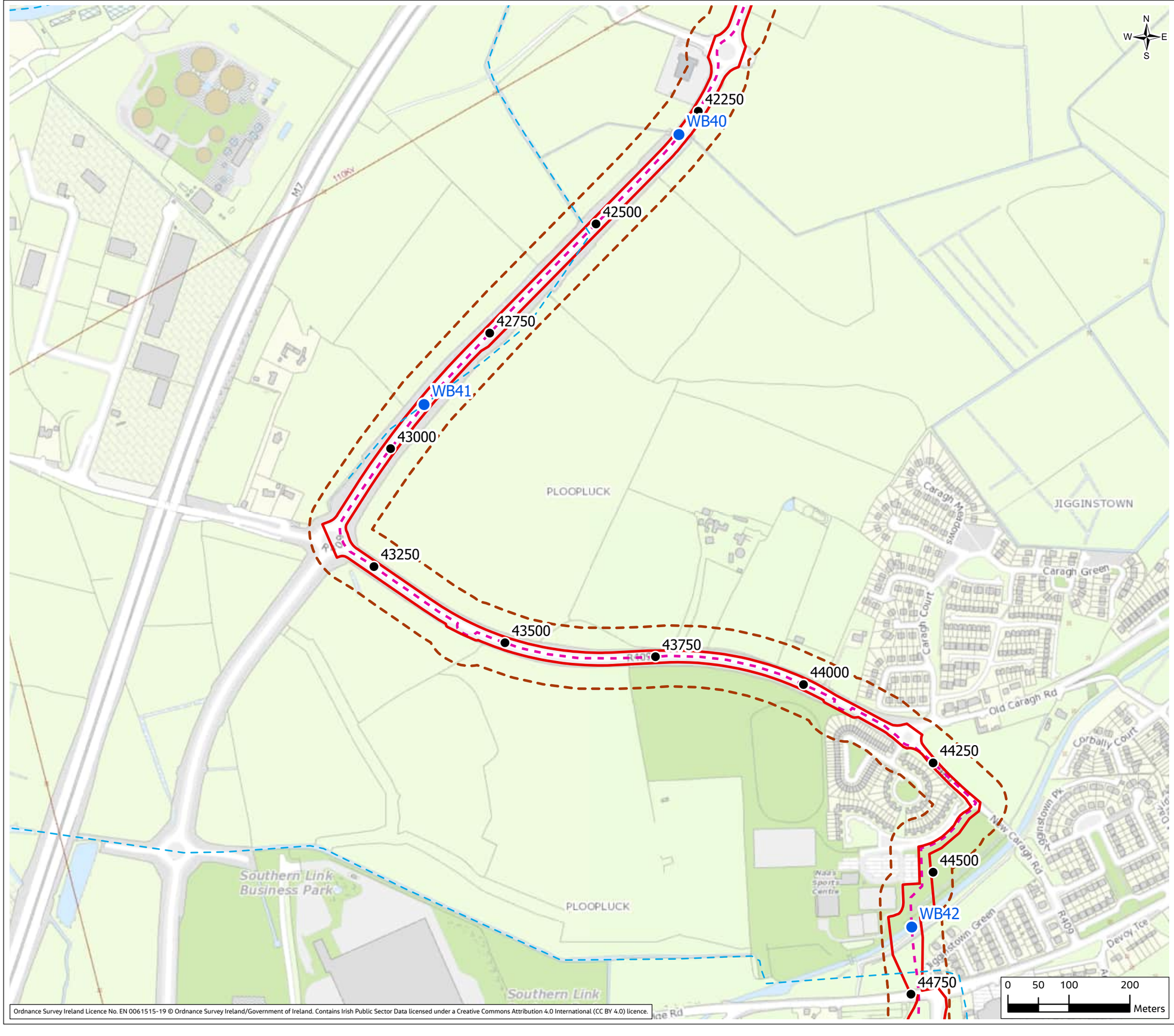
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3026



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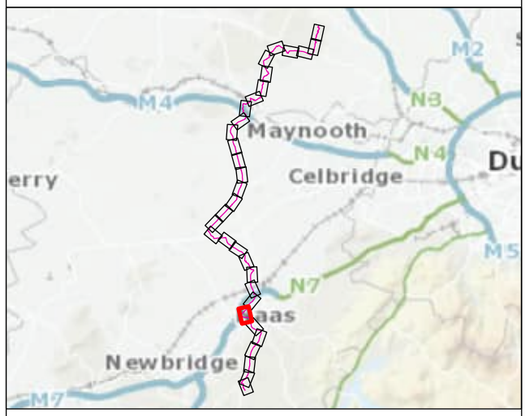


Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

Jacobs
Merrion House, Merrion Road, Dublin, D04 R2C5, Ireland.
www.jacobs.com

Project: Kildare-Meath Grid Upgrade

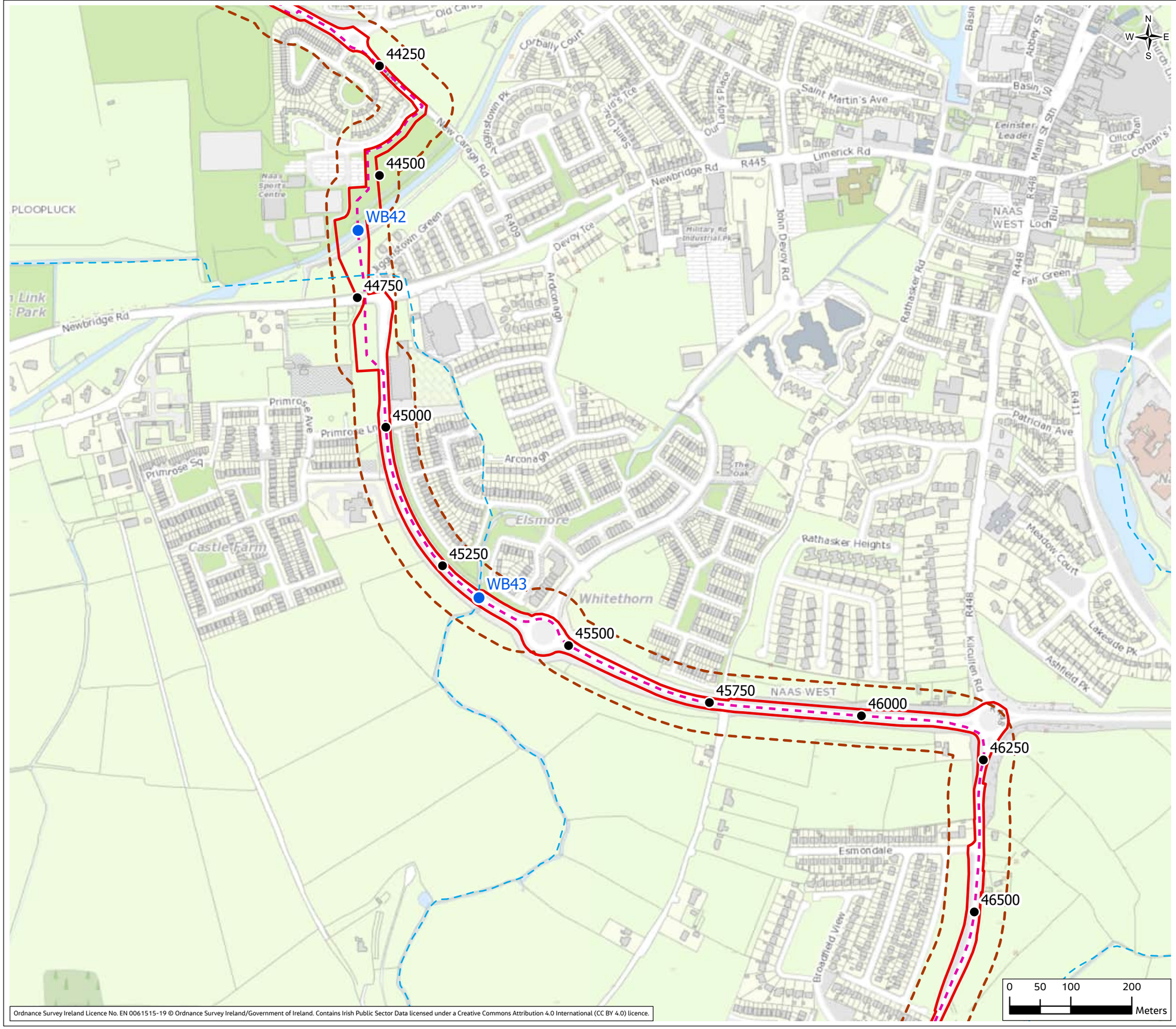
Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 27 of 33

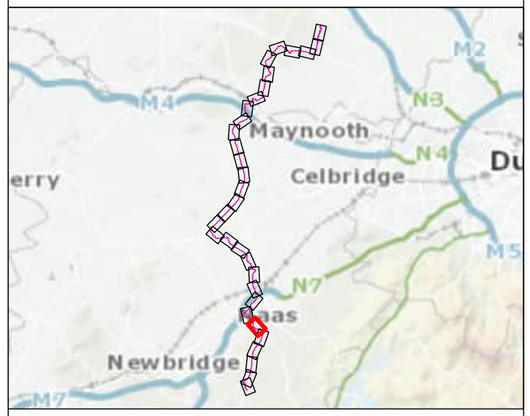
Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3027



Appendix B; Figure 2.28



Legend

- Proposed Cable Route
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01	Apr 2023	Final	PM	SJ	FL	FB

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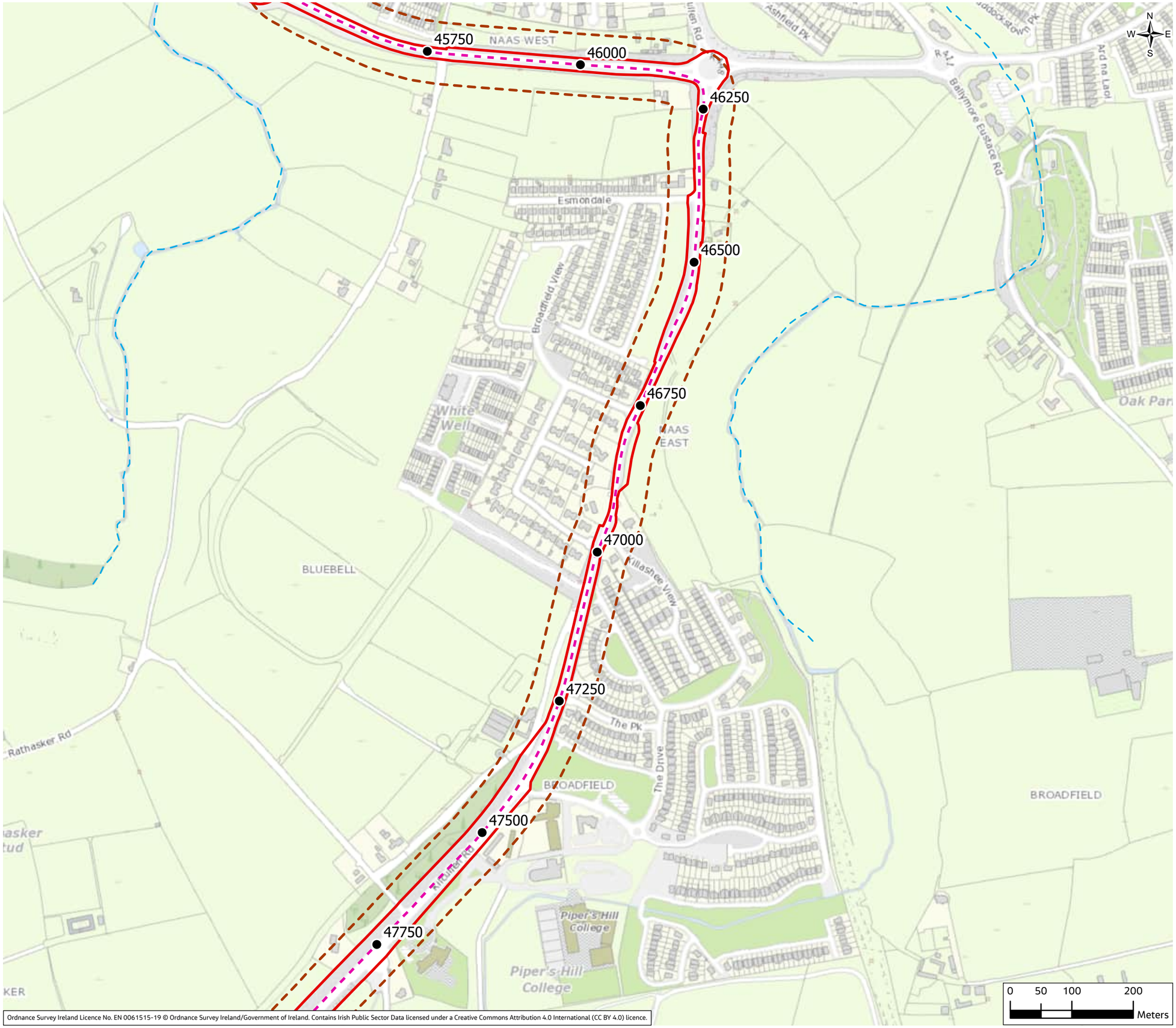
Sheet 28 of 33

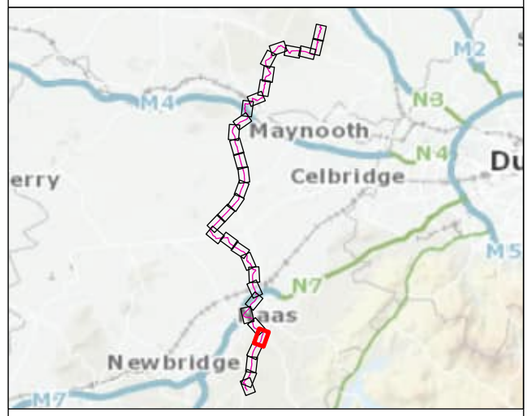
Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3028



Appendix B; Figure 2.29



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 29 of 33

Drawing Status: Final

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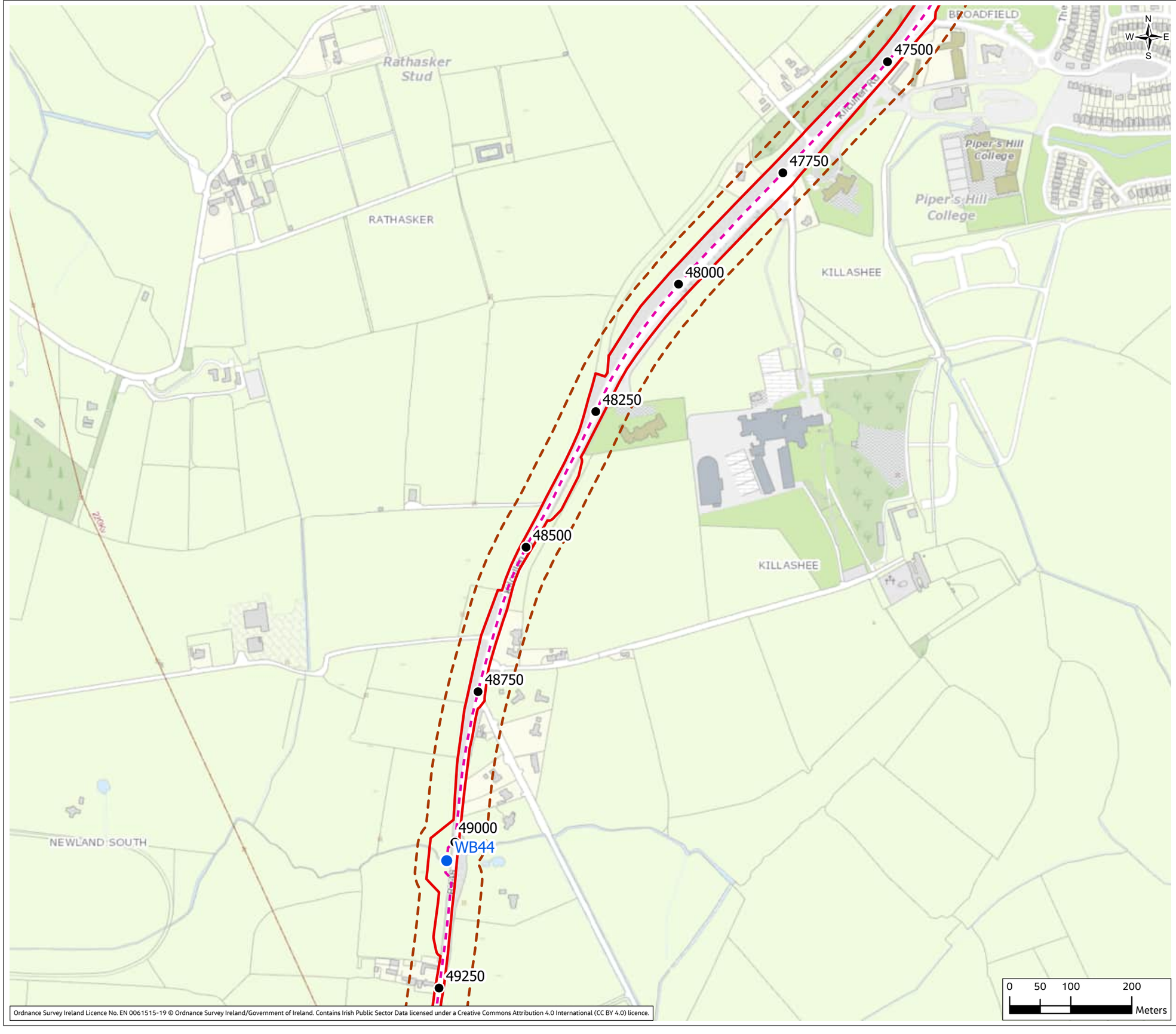
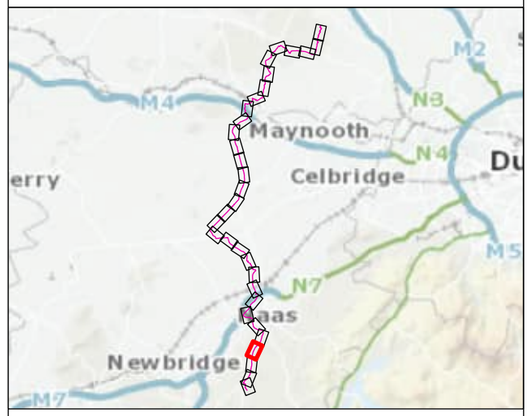
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3029



Appendix B; Figure 2.30



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 30 of 33

Drawing Status: Final

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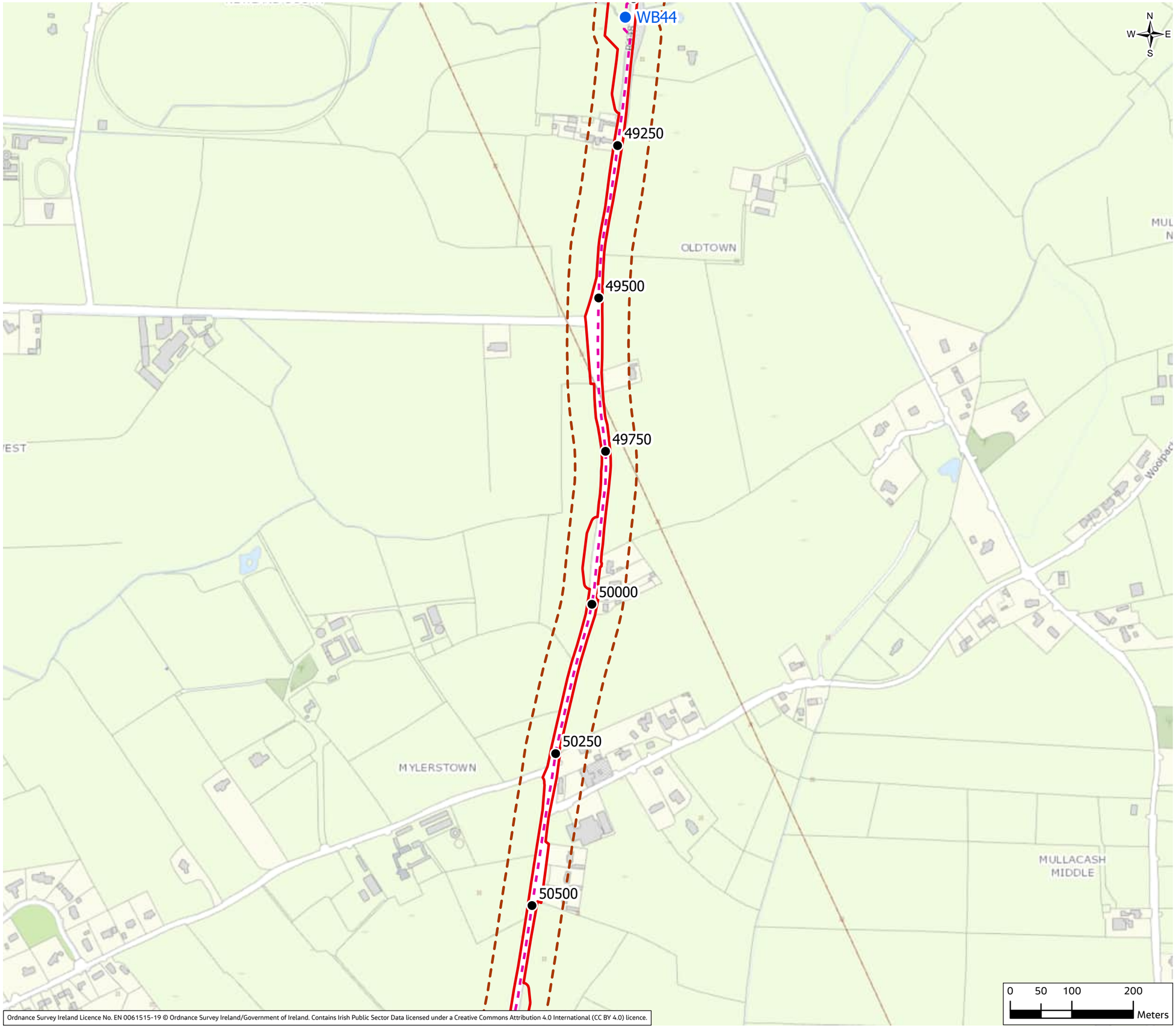
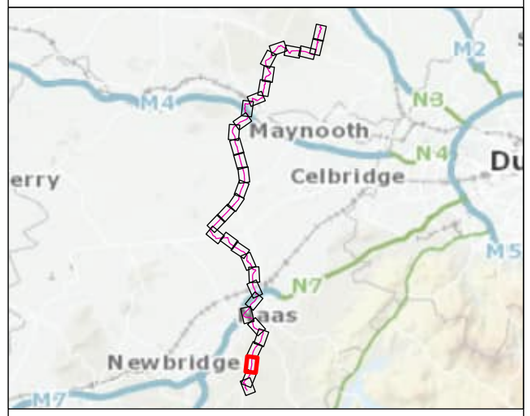
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3030



Appendix B; Figure 2.31



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 31 of 33

Drawing Status: Final

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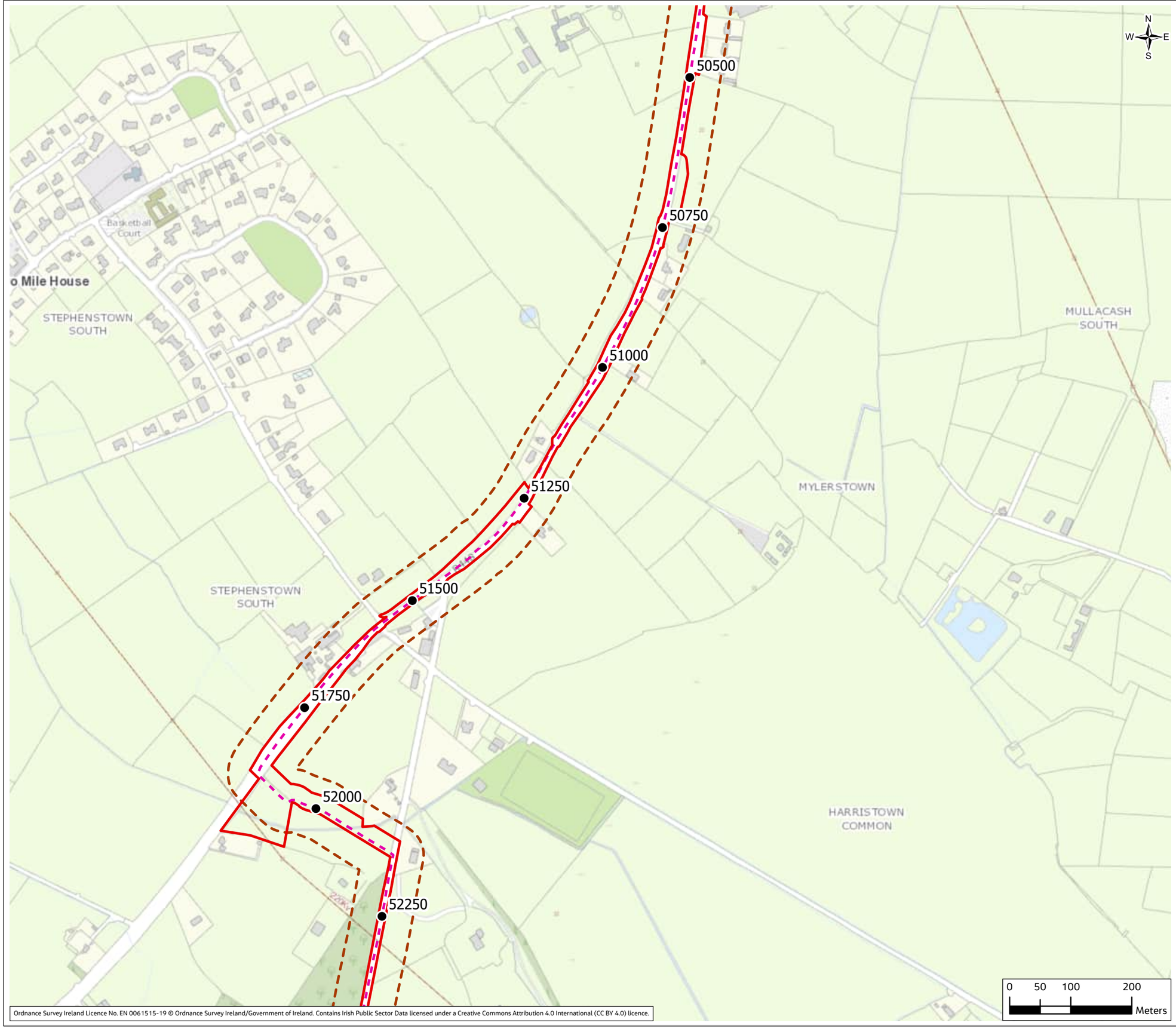
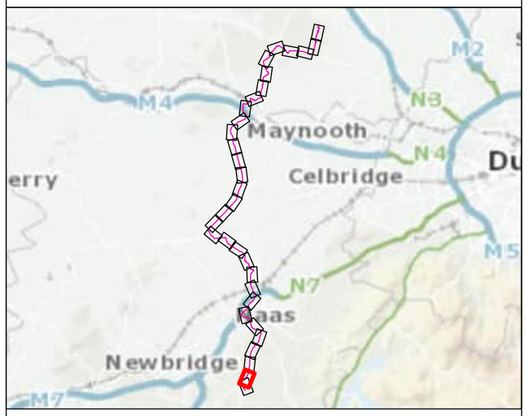
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3031



Appendix B; Figure 2.32



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Cable route, with chainage and waterbody numbers

Sheet 32 of 33

Drawing Status: Final

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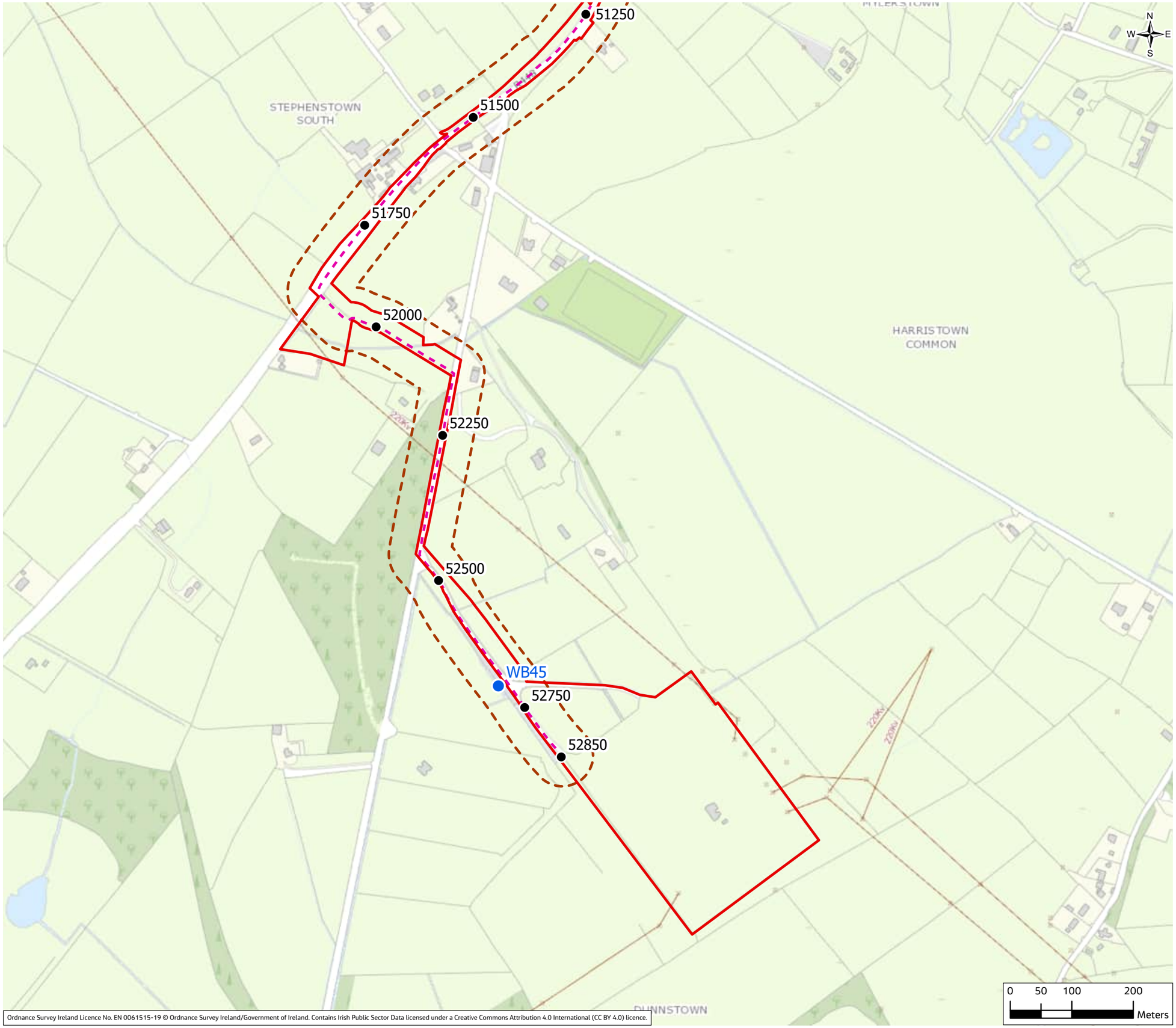
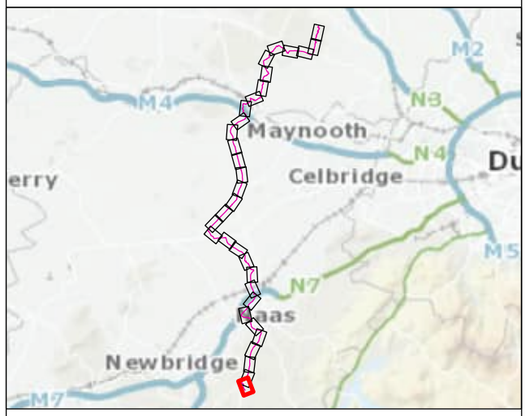
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3032



Appendix B; Figure 2.33



Legend

- Proposed Cable Route
- Planning Application Boundary
- Study Area (50m Buffer)
- Watercourses
- Waterbody (WB) number
- ●2250 Chainage Number

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

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Drawing Title: Cable route, with chainage and waterbody numbers

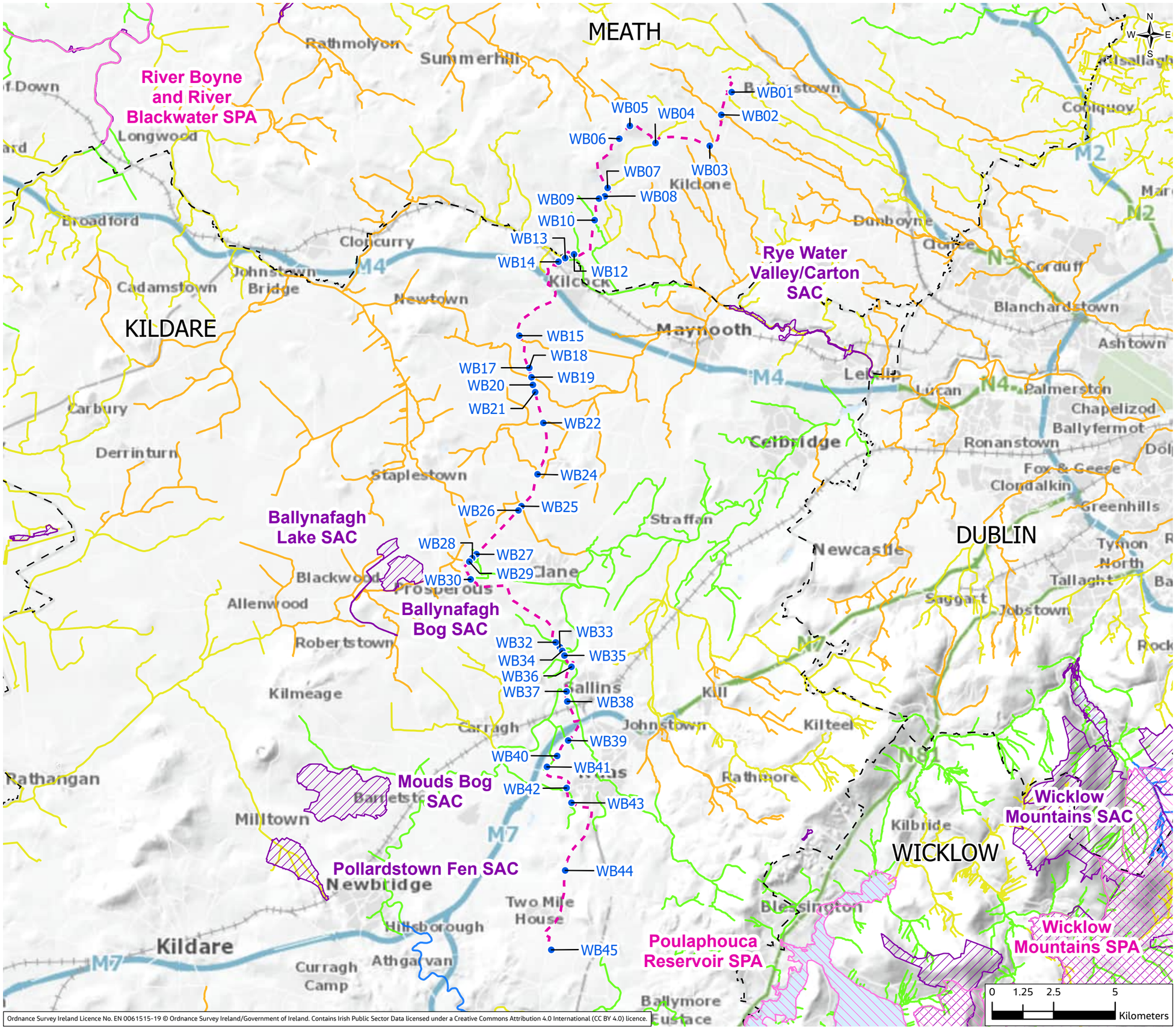
Sheet 33 of 33

Drawing Status: Final

Scale @ A3	1:6,000	DO NOT SCALE
Jacobs No.	321084AH	
Client No.	CP966	

Drawing No.: 321084AH-JAC-ZZ-XX-DR-K-3033

Appendix C. Figure 3 (321084AH-JAC-ZZ-XX-DR-K-3035). Water Framework Directive status of watercourses in the vicinity of the Proposed Development



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Appendix C; Figure 3

Legend

- Proposed Cable Route Alignment
- County Boundary
- Waterbody (WB) number

WFD River Waterbody Status (2016-2021)

- High
- Good
- Moderate
- Poor

European sites

- Special Protection Area (SPA)
- Special Area of Conservation (SAC)

Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	Appr'd
01	Apr 2023	Final	PM	SJ	FL	FB

Client: EirGrid

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Project: Kildare-Meath Grid Upgrade

Drawing Title: Water Framework Direct category of waterbodies in vicinity of proposed cable route

Drawing Status: Final

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Jacobs No.	321084AH	
Client No.	CP966	
Drawing No.	321084AH-JAC-ZZ-XX-DR-K-3035	