



Arklow Bank Wind Park 2

Environmental Impact Assessment Report

Volume III, Appendix 25.8: Construction Noise Management Plan
(Revised March 2026)



Revision	Date	Status	Author	Reviewed by	Approved by
1.0	13/05/24	Final (External)	Sure Partners Ltd.	GoBe Consultants	Sure Partners Ltd.
2.0	16/03/26	Final External (Revised March 2026)	Sure Partners Ltd.	GoBe Consultants	Sure Partners Ltd.

Statement of Authority

Experts	Qualifications	Relevant Experience
Kaj Christiansen	<p>BEng (Hons.) in Environmental Engineering from the University of Galway</p> <p>MSc (Hons.) in Renewable Energy from University of Aberdeen</p> <p>CEng with Engineers Ireland</p>	<p>Kaj has over 14 years' experience within the renewable energy industry, specifically in the field of offshore wind and solar energy development.</p> <p>Kaj has acted in both project engineering and project management roles for a number of offshore wind projects throughout the North Sea. Within these projects Kaj was responsible for delivering foundation structures and has experience across the project lifecycle; from procurement and design to construction and commissioning.</p> <p>Kaj also has extensive Irish based development management experience in taking solar and offshore wind energy infrastructure through the development cycle; from early conceptual planning stages through to design, construction and operation.</p>
Ashley Leiper	<p>BMus (Hons.) in Music and Sound Recording from University of Surrey,</p> <p>MEngMSc in Environmental Acoustics from University of Salford,</p> <p>Corporate Member of the Institute of Acoustics, CEng with the Institute of Acoustics</p>	<p>Ashley has over nineteen years' experience in environmental acoustics. Prior to joining SSE Renewables in 2021, Ashley was a principal acoustics consultant with experience working on a range of projects including wind farms, electrical infrastructure, transport projects and residential developments.</p> <p>At SSE Renewables, Ashley is a senior noise analyst for development projects, including offshore developments, encompassing construction and operational noise from offshore windfarms as well as the associated onshore electrical infrastructure.</p> <p>Ashley is a member of the Institute of Acoustics' Renewable Energy Working Advisory Group and has presented research at international conferences.</p>

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Glossary

Term	Meaning
Ambient Noise	As defined in BS 5228-1:2009+A1:2014: noise in a given situation at a given time, usually composed of sound from many sources near and far, but excluding site noise. Ambient noise is normally expressed as the equivalent continuous A-weighted sound pressure level, $L_{Aeq,T}$.
An Bord Pleanála.	The Competent Authority (CA) designated as responsible for performing the duties arising from the EIA Directive as amended.
Arklow Bank Wind Park 1 (ABWP1)	Arklow Bank Wind Park 1 consists of seven wind turbines, offshore export cable and inter-array cables. Arklow Bank Wind Park 1 has a capacity of 25.2 MW. Arklow Bank Wind Park 1 was constructed in 2003/04 and is owned and operated by Arklow Energy Limited. It remains the first and only operational offshore windfarm in Ireland.
Arklow Bank Wind Park 2 – Offshore Infrastructure	“The Proposed Development”, Arklow Bank Wind Park 2 Offshore Infrastructure: This includes all elements under the existing Maritime Area Consent.
Arklow Bank Wind Park 2 (ABWP2) (the Project)	<p>Arklow Bank Wind Park 2 (ABWP2) (The Project) is the onshore and offshore infrastructure. This EIAR is being prepared for the Offshore Infrastructure. Consents for the Onshore Grid Infrastructure (Planning Reference 310090) and Operations Maintenance Facility (Planning Reference 211316) has been granted on 26 May 2022 and 20 July 2022, respectively.</p> <ul style="list-style-type: none"> • Arklow Bank Wind Park 2 Offshore Infrastructure: This includes all elements to be consented in accordance with the Maritime Area Consent. This is the subject of this EIAR and will be referred to as ‘the Proposed Development’ in the EIAR. • Arklow Bank Wind Park 2 Onshore Grid Infrastructure: This relates to the onshore grid infrastructure for which planning permission has been granted. • Arklow Bank Wind Park 2 Operations and Maintenance Facility (OMF): This includes the onshore and nearshore infrastructure at the OMF, for which planning permission has been granted. • Arklow Bank Wind Park 2 EirGrid Upgrade Works: any non-contestable grid upgrade works, consent to be sought and works to be completed by EirGrid.
Array Area	The Array Area is the area within which the Wind Turbine Generators (WTGs), the Offshore Substation Platforms (OSPs), and associated cables (export, inter- array and interconnector cabling) and foundations will be installed.
Cable Corridor and Working Area	The Cable Corridor and Working Area is the area where the export, inter array and interconnector cabling will be installed. This area will also

Term	Meaning
	facilitate vessel jacking operations associated with installation of WTG structures and associated foundations within the Array Area.
Competent Authority	The authority designated as responsible for performing the duties arising from the EIA Directive as amended. For this application, the Competent Authority is An Bord Pleanála (ABP).
Environmental Impact Assessment (EIA)	An Environmental Impact Assessment (EIA) is a statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU of the European Parliament and of the Council (EIA Directive).
EirGrid	State-owned electric power transmission system operator (TSO) in Ireland and Transmission Asset Owner (TAO) for the Project's transmission assets.
Foundations	<p>The load carrying support structure for the wind turbine generator tower or offshore substation platform topside. The foundation is the part of the structure from the interfacing flange with the turbine tower or topside-foundation interface, down to below seabed. This includes any secondary steel items associated with the structure.</p> <p>For the purposes of the EIAR the term 'foundation' includes the structure from the WTG tower or topside interface down to the lower end of the monopile commonly known as the 'substructure' and encompasses monopiles and transition pieces.</p>
Landfall	The area in which the offshore export cables make landfall and is the transitional area between the offshore cabling and the onshore cabling.
Maritime Area Consent (MAC)	A consent to occupy a specific part of the maritime area on a non-exclusive basis for the purpose of carrying out a Permitted Maritime Usage strictly in accordance with the conditions attached to the MAC granted on 22 December 2022 with reference number 2022-MAC-002.
Mitigation Measure	Measure which would avoid, reduce, or remediate an impact.
Permitted Maritime Usage	The construction and operation of an offshore windfarm and associated infrastructure (including decommissioning and other works required on foot of any permission for such offshore windfarm).
Site Noise	As defined in BS 5228-1:2009+A1:2014: noise in the neighbourhood of a site that originates from the site. Site noise is normally expressed as the equivalent continuous A-weighted sound pressure level, $L_{Aeq,T}$.

Term	Meaning
The Application	The full set of documents submitted to An Bord Pleanála in support of the consent application.
The Developer	Sure Partners Ltd.
Total Noise	As defined in BS 5228-1:2009+A1:2014: ambient noise plus site noise gives total noise. Total noise is normally expressed as the equivalent continuous A-weighted sound pressure level, $L_{Aeq,T}$.

Acronyms

Term	Meaning
BS	British Standard
CA	Competent Authority
CNMP	Construction Noise Management Plan
ECoW	Environmental Clerk of Works
EIAR	Environmental Impact Assessment Report
EM	Environmental Manager
MAC	Maritime Area Consent
NSR	Noise Sensitive Receiver
OGI	Onshore Grid Infrastructure
OMF	Operations and Maintenance Facility
OSP	Offshore Substation Platform
SPL	Sure Partners Limited

Units

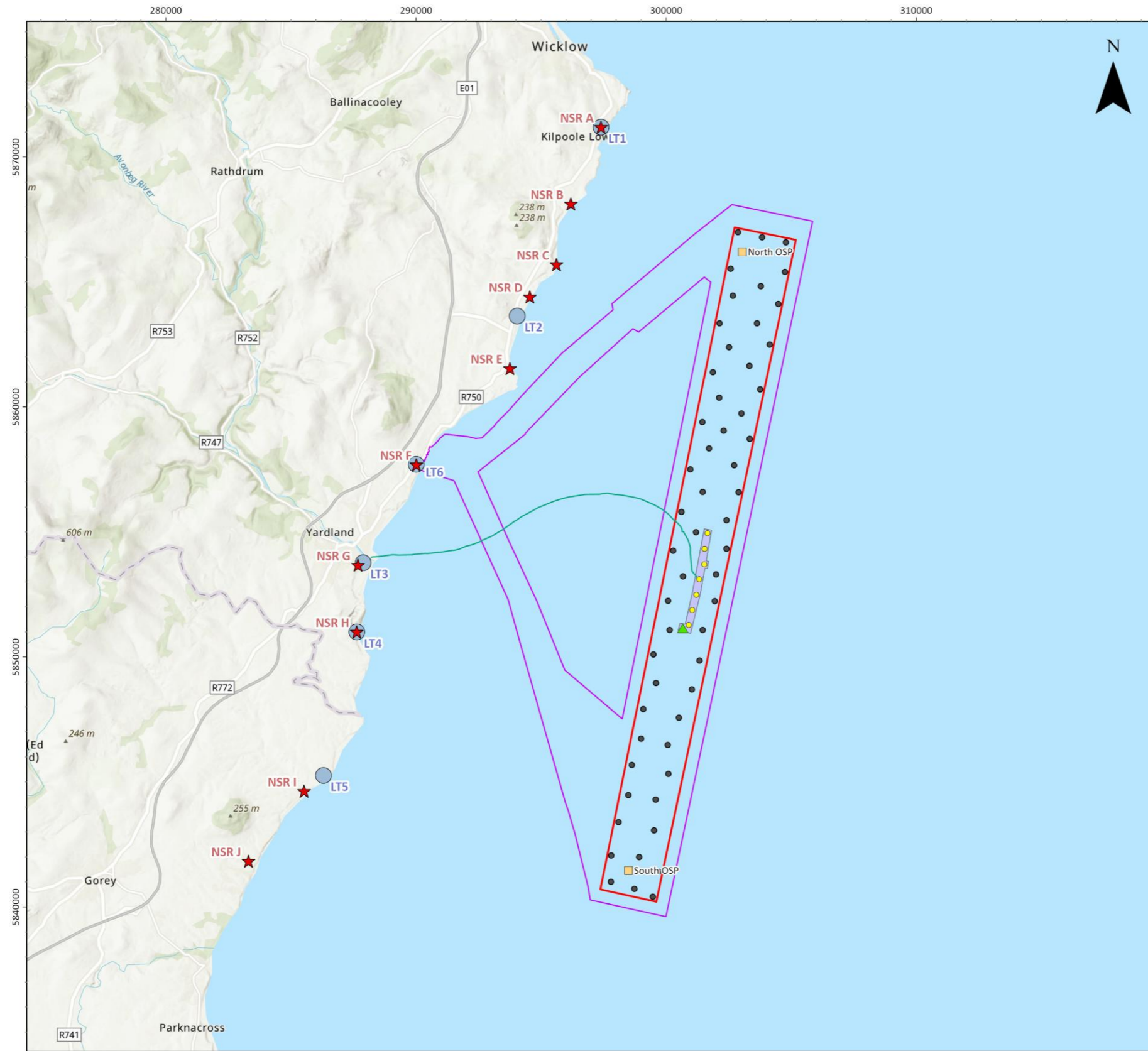
Unit	Description
dB	A logarithmic ratio of two numbers used, in this case, to express sound pressure levels. All dB values used within this report use the standard airborne reference value of 20 μ Pa.
$L_{Aeq,T}$	Equivalent continuous A-weighted sound pressure level over measurement period, T
L_{pAF}	Instantaneous A-weighted fast weighted sound pressure level
km	Kilometre
km^2	Kilometre squared

1 Construction Noise Management Plan

1.1 Introduction

1.1.1 Purpose

- 1.1.1.1 This Construction Noise Management Plan (CNMP) has been prepared by GoBe on behalf of Sure Partners Limited (SPL) (the Developer) to support the Environmental Impact Assessment Report (EIAR) for the Arklow Bank Wind Park 2 Offshore Infrastructure (hereinafter referred to as 'the Proposed Development').
- 1.1.1.2 The purpose of this CNMP is to define the measures and controls required to limit airborne noise emissions from the construction of the Proposed Development at noise sensitive receivers (NSRs). The continued application of these measures will reduce onshore noise levels and ensure that they will be maintained at levels that will comply with the 'ABC method' defined in BS 5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise (BS 5228-1).



Arklow Bank Wind Park 2

Noise Monitoring Locations

Legend

- ABWP2 Array Area
- ABWP2 Cable Corridor and Working Area
- ABWP2 WTGs (56 Turbine Option)
- ABWP2 OSP Locations
- ABWP1 WTGs
- ABWP1 Existing Met Mast
- ABWP1 Existing Export Cable
- ABWP1 Array Area
- ★ Noise Sensitive Receiver Locations
- Noise Monitoring Survey Locations



Notes
OceanWise, Esri, GEBCO, Garmin, NaturalVue, Esri UK, Esri, TomTom, Garmin, FAO, NOAA, USGS, Esri UK, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS, Esri, Ordnance Survey, NASA, NGA, USGS. Contains Ordnance Survey data © Crown copyright and database rights (2022). OS OpenData.

Coordinate System:
ETRS 1989 UTM Zone 30N

0 3 6 km
0 2 3 nm

Scale: 1:150,000 @ A3 Date: 27/03/2024 Drawn By: GB Checked By: EM Approved By: LK

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Higher Mill Lane
Buckfastleigh
Devon
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Figure Number 25.8.1

Figure Reference: Ark_001_NoiseMonitoringSurveyLocationsFig25.8.1

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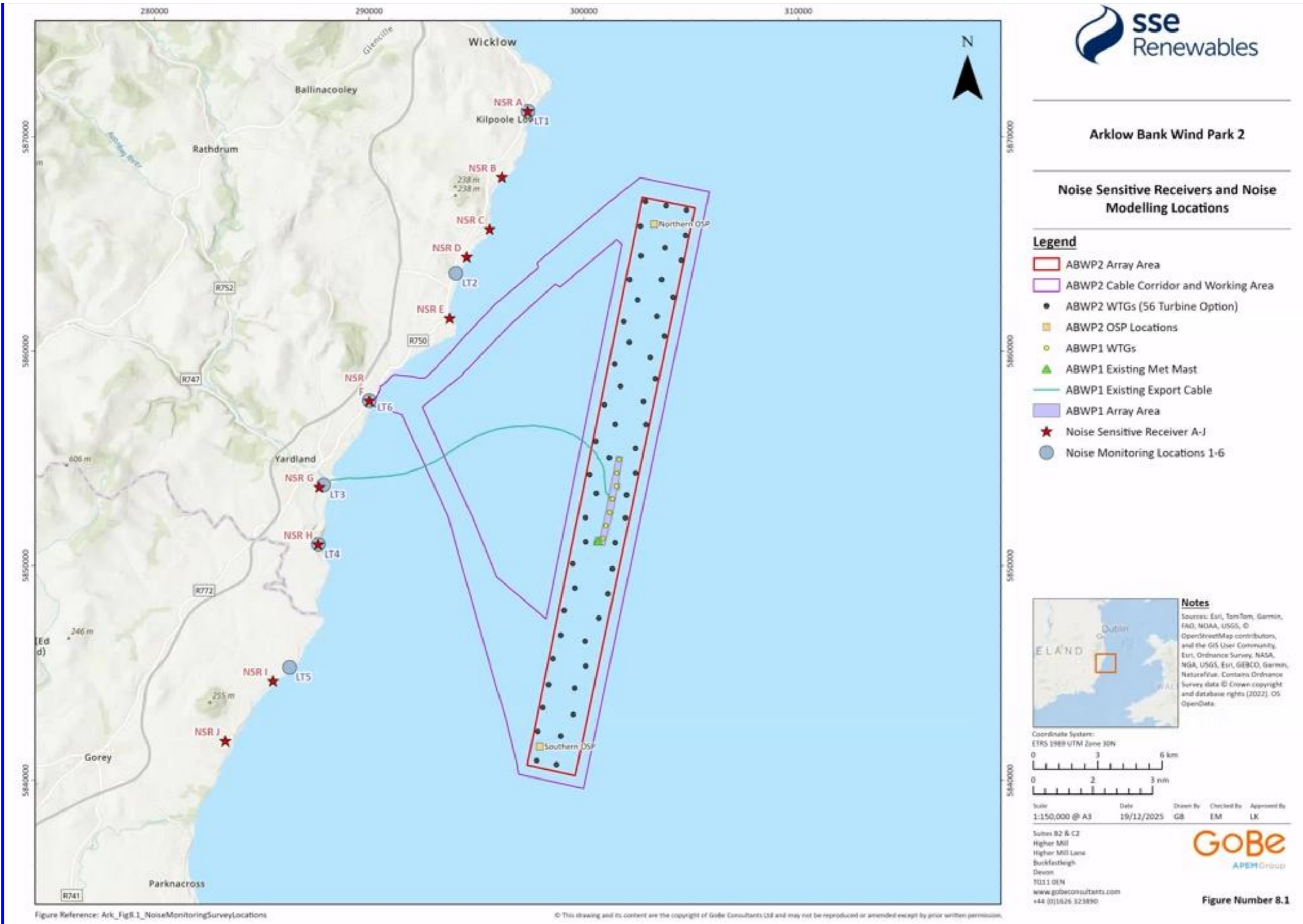


Figure 25.8.1: Noise Sensitive Receiver map

1.1.2 Scope

- 1.1.2.1 This CNMP covers airborne noise associated with the construction of the Proposed Development only, affecting onshore NSRs only. Potential noise impacts associated with decommissioning have been scoped out of the EIAR (Volume II, Chapter 8: Airborne Noise (Revised March 2026)).
- 1.1.2.2 In May 2022, Sure Partners Ltd. (the Developer) received planning approval for the onshore grid infrastructure (OGI) (Case Reference: 310090). In June 2022, the Developer received planning permission for the Operations and Maintenance Facility (OMF) (Planning Register Reference: 21/1316). This CNMP therefore does not apply to activities associated with the OGI and OMF.

1.1.3 Project background and consents

- 1.1.3.1 The Proposed Development is a proposed offshore windfarm situated on and around Arklow Bank in the Irish Sea, approximately 6 to 15 km to the east of Arklow in County Wicklow (see Figure 25.8.1). The Proposed Development will comprise either 5653 or 47 wind turbines, two offshore substation platforms (OSPs), a Cable Corridor and Working Area which extends from the Array Area in two locations, to a landfall approximately 4.5 km to the north of Arklow at Johnstown North, and a network of inter-array cabling. The Array Area (i.e. the area in which the wind turbines, inter-array cables and OSPs will be located) covers 63.4 km² (a rectangular block approximately 27 km long and 2.5 km wide).

1.1.4 Guidance

- 1.1.4.1 There are no legislatively binding construction noise limits in Ireland. Hence, the construction noise assessment is based on the industry standard practice outlined in BS 5228-1. BS 5228-1 sets out the recommendations for basic methods of noise control relating to construction sites including open sites where work activities/operations generate significant noise levels, whilst including industry-specific guidance.
- 1.1.4.2 Specifically, in accordance with the 'ABC method' defined in BS 5228-1 noise is assessed and, for the quietest category of noise sensitive locations, a potentially significant effect is indicated above 45 dB L_{Aeq,T} during the night time (23:00 – 07:00), 55 dB L_{Aeq,T} during evenings and weekends (19:00 – 23:00 weekdays, 13:00 – 23:00 Saturdays and 07:00 – 23:00 Sundays) and 65 dB L_{Aeq,T} during daytimes (07:00 – 19:00 weekdays, 07:00 – 13:00 Saturdays). If a potentially significant effect is identified, the assessor needs to consider other project-specific factors, such as the number of NSRs affected and the duration and character of the impact, to determine if there is a significant effect.
- 1.1.4.3 It has been interpreted, for the purpose of establishing whether the Proposed Development will comply with BS 5228-1 'ABC' method, that the specified time interval, T, as indicated in the limits made with reference to dB L_{Aeq,T}, refers to the duration of the assessment period, i.e. 12 hours during the daytime, four hours during the weekday evenings, 10 hours during the Saturday weekend period, 16 hours during the Sunday weekend period and eight hours during the night time.
- 1.1.4.4 On the basis that the guidance is included to minimise adverse noise effects on NSRs, it is assumed that the limit would only apply, and be assessed, at onshore residential locations.
- 1.1.4.5 As described in Section 8.6.3 of Volume II, Chapter 8: Airborne Noise (Revised March 2026), it is conservatively assumed that all NSRs are in Category A of the ABC method. Based on the construction noise threshold levels outlined in BS 5228-1 'ABC' method, a daytime construction noise threshold level of 65 dB L_{Aeq,T}, an evenings and weekend construction noise threshold level of 55 dB L_{Aeq,T} and a night-time construction noise threshold level of 45

dB $L_{Aeq,T}$ has been recommended. These daytime, evenings and weekend and night-time construction noise threshold levels are the most conservative limits outlined in BS 5228-1.

1.1.5 Roles and responsibilities

1.1.5.1 The Developer's Project Manager will have day to day responsibility for ensuring ongoing compliance with the CNMP (and overall Environmental Management Plan (see Volume III, Appendix 25.1: [Environmental Management Plan \(Revised March 2026\)](#))). Key responsibilities in relation to the CNMP include the following:

- Communicating the requirements of the CNMP to SPL personnel, contractors and subcontractors.
- Monitoring the implementation of the CNMP and ongoing compliance.
- Provision of advice to SPL personnel, contractors and subcontractors on compliance with the CNMP.
- Reviewing contractor and subcontractor documentation.
- Engaging with local communities to inform them of the potential for audible noise and to alert residents to periods where there is a potential for noise to be audible.
- Liaising with relevant stakeholders, as required.
- Ensuring that noise management issues form part of progress meetings and site inductions.
- The establishment and implementation of a noise complaints procedure. This should include:
 - A dedicated complaints telephone line, available 24 hours a day.
 - A system to log all complaints, which can be shared with the local authority on request.
 - Provision for information on how formal complaints can be made by members of the public to the relevant authority.
 - A noise complaint investigation procedure.
- Commissioning and management of consultants to conduct complaint investigations, if required.

1.1.5.2 All contractors (and their subcontractors) will ensure that their own procedures comply with the requirements of this CNMP. Key responsibilities in relation to the CNMP include the following:

- Ensuring that sufficient resources and processes are in place to comply with the CNMP and to manage the potential adverse noise impacts of their activities.
- Responsible for implementing the required noise management measures (Section 1.2).
- Monitoring of offshore meteorological conditions (wind speed and direction) by the contractors piling operations team.
- Maintaining regular dialogue with the Developer's Environmental Manager (EM) / the Developer's Environmental Clerk of Works (ECoW) and contacting the Developer's EM / ECoW in the event of any incident or noise queries. The Developer's EM / SPL ECoW will ensure the Developer's Project Manager is made aware of all relevant information.

1.1.5.3 Contact details will be added to Table 25.8.1 in a future plan iteration.

Table 25.8.1: Contact details of responsible parties

Name	Telephone	Email	Company

1.2 Noise management measures

1.2.1.1 As outline in Volume II, Chapter 8: Airborne Noise ([Revised March 2026](#)), necessary noise management measures are dependent on the portion of the site in which the impact piling is being carried out, the period of day and the meteorological conditions.

1.2.1.2 The measures for impact piling [to comply with comply with the 'ABC method' defined in BS 5228-1](#) are summarised in Table 25.8.2, below.

Table 25.8.2: Noise Mitigation / Management Matrix

Period*	Portion of Array Area**	No wind / Downwind Mitigation***	Crosswind / Upwind Mitigation***
Daytime	North	None	None
	Centre / South	None	None
Evening	South North	None	None
Evening	North	Screen -or Dolly -or Stop piling	None
	Centre	None	None
	Centre / South	None	None
Night Time	North	Screen and Dolly**** or Stop piling	None
	Centre / South	Screen and Dolly -or Stop pilingNone	None
	South	Screen and Dolly -or Stop piling	None

*As defined in Paragraph 1.1.4.2

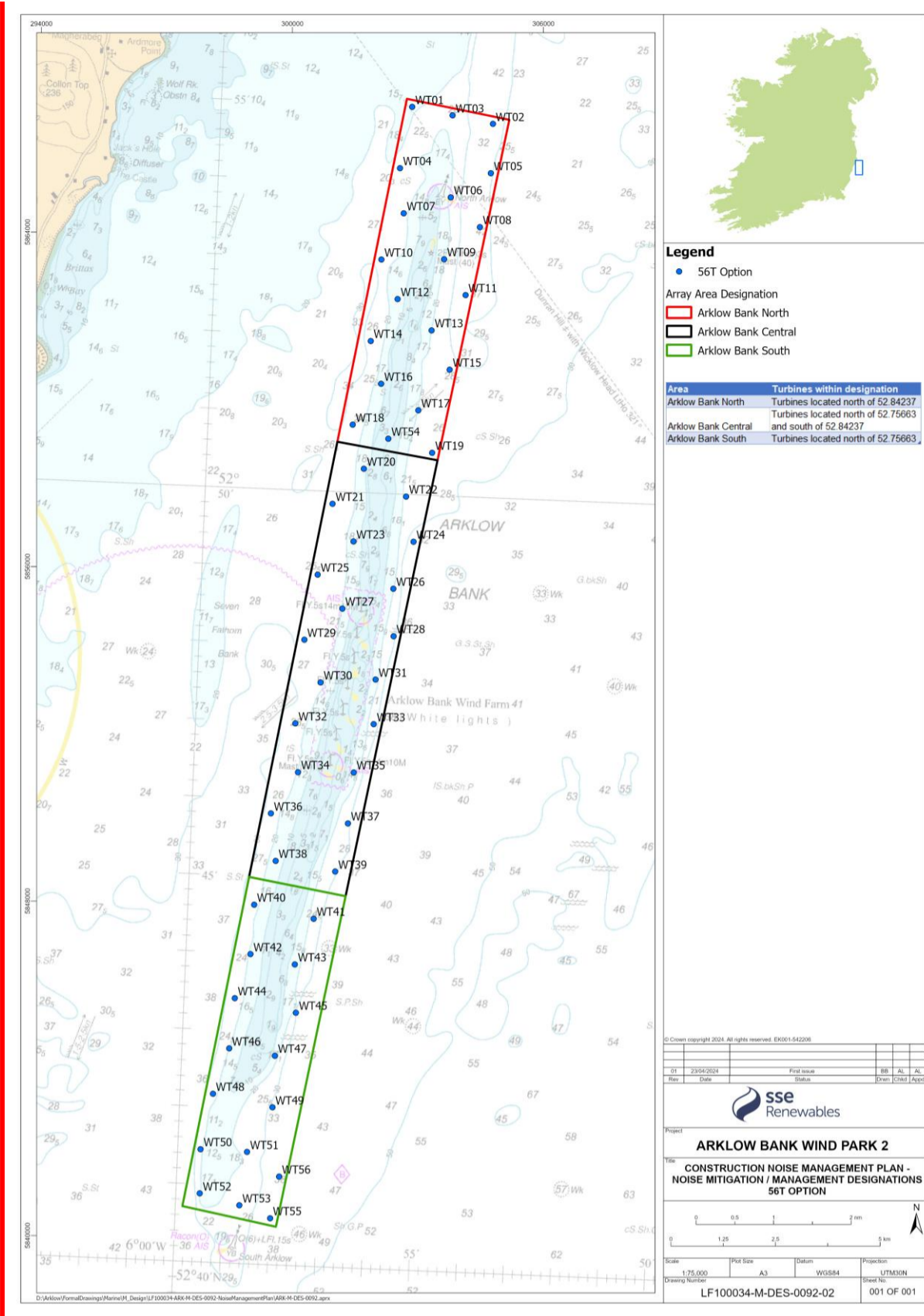
** As defined in Paragraph ~~1.2.1.4~~1.2.1.4

*** As defined in Paragraph ~~1.2.1.5~~1.2.1.5

**** As described in Paragraph 1.2.1.3

1.2.1.3 The Screen is described in Volume II, Chapter 8: Airborne Noise (Revised March 2026). Different physical mitigation systems might be offered by different transport and installation contractors. Alternative physical mitigation systems will be utilised, as necessary, provided they can be shown to achieve the necessary attenuation (i.e. attenuate noise to levels that will comply with the 'ABC method' defined in BS 5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise.

1.2.1.4 ~~1.2.1.3~~The turbines are grouped into the North, Centre and South of the site to allow for consideration of different distances to shore ~~and different ground conditions~~. The designation of each turbine for both layouts are indicated in Figure 25.8.2 and Figure 25.8.3.



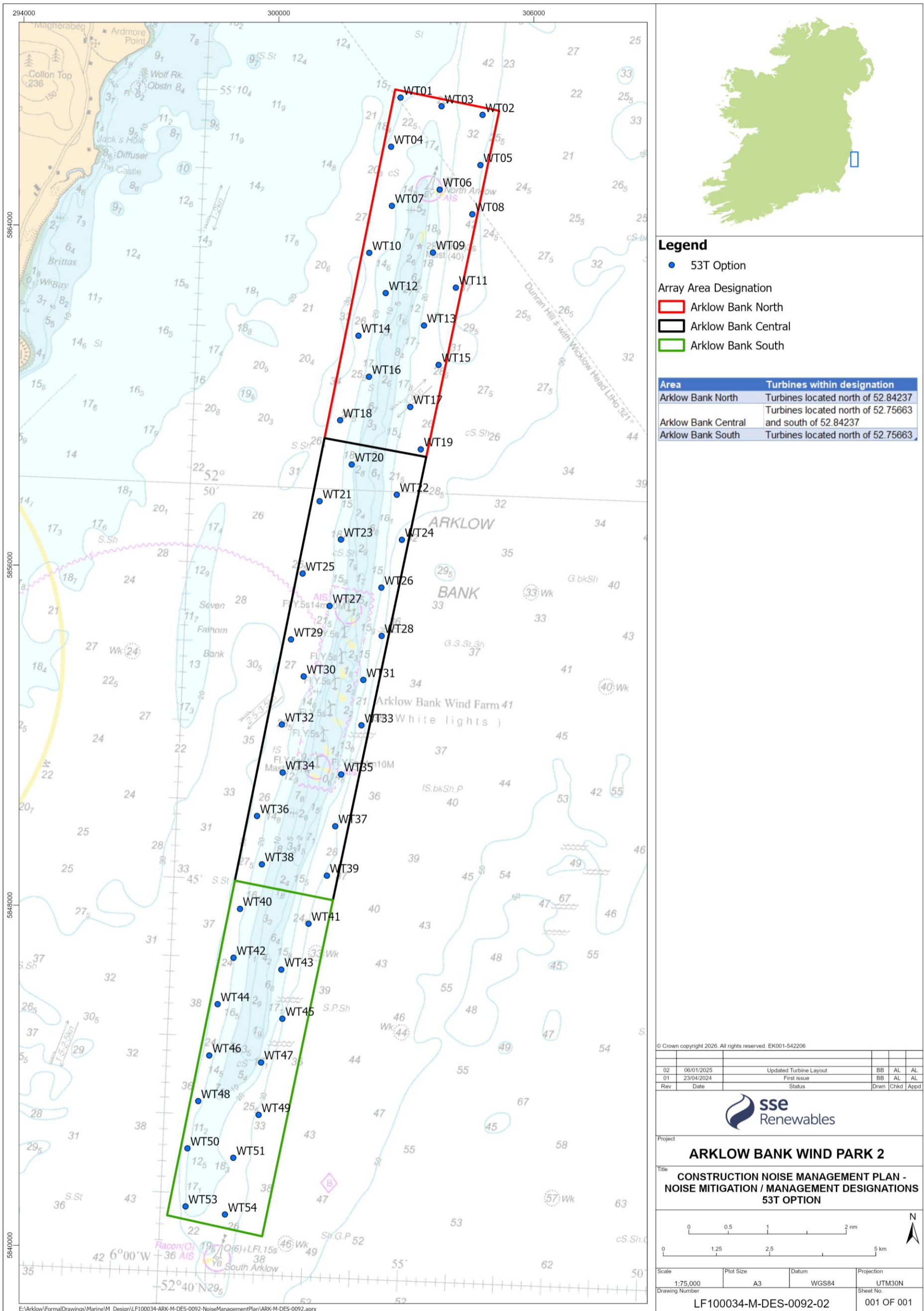
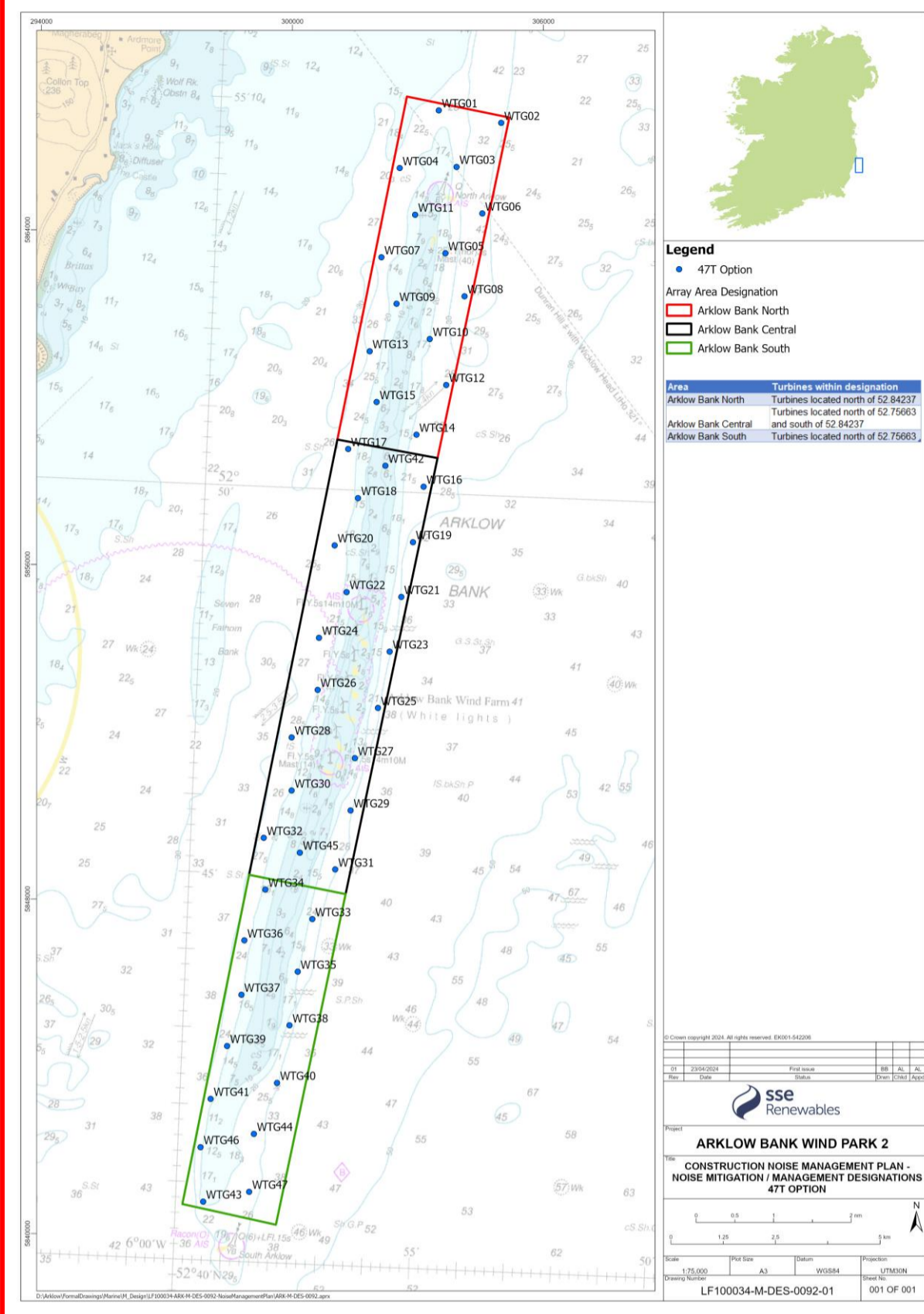


Figure 25.8.2: Northern, Central and Southern Designations for Option 1



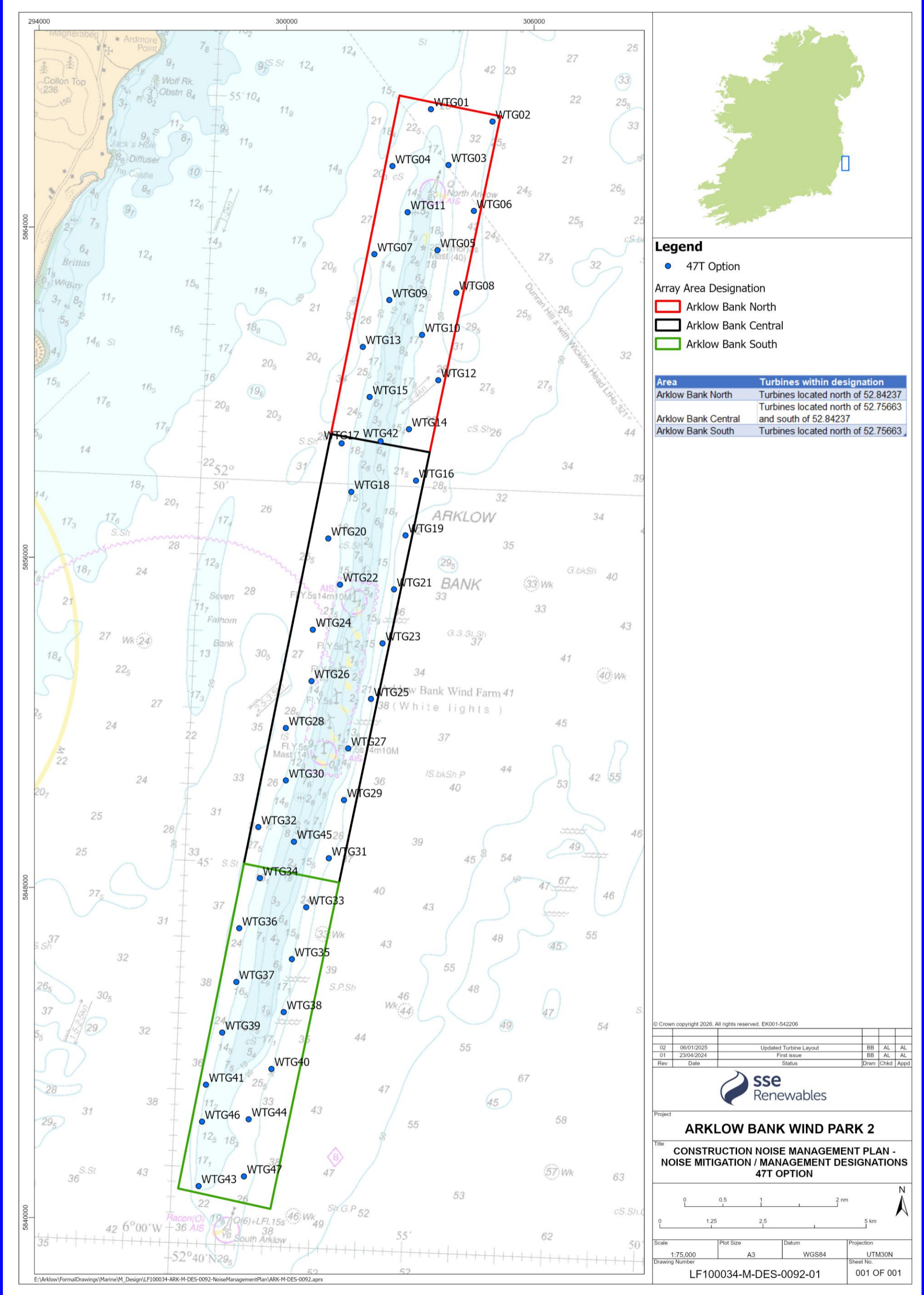


Figure 25.8.3: Northern, Central and Southern Designations for Option 2

- 1.2.1.5 ~~4.2.1.4~~ Offshore meteorological conditions (wind speed and direction) will be monitored by the Contractors piling operations team. Wind conditions for each pile driving event will be determined through a combination of wind directions and speeds measured on the vessel prior to installation and observations from the forecast for the anticipated pile driving period. Downwind is considered to be when wind is travelling from North East to South ~~South West~~East and crosswind / upwind is considered to be all other wind directions.
- 1.2.1.6 ~~4.2.1.5~~ If, once piling activity has commenced, meteorological conditions unexpectedly change and are expected to remain as such for the remainder of the piling works, the necessary mitigation will be reevaluated in accordance with the mitigation matrix, and, if required, piling activity will cease as soon as it is reasonably and safely practicable to do so.
- 1.2.1.7 ~~4.2.1.6~~ If onshore noise levels during downwind conditions are shown through measurement to be below the levels predicted using the precautionary modelling parameters in the EIAR for at least five foundations, the mitigation matrix will be revisited. In such an event, the minimum level of headroom below the predicted levels will be determined. If there is sufficient headroom (≥ 3 dB), it may be possible to (depending on the magnitude of measured headroom):
- remove the need for the ~~screen or the dolly~~physical mitigation or to stop piling during downwind conditions in the northern portion of the Array Area during the ~~evening~~night-time.
 - ~~Alter the need for night-time mitigation in any of the three portions of the site during downwind conditions from the requirement to use a combination of the screen and the dolly or to stop piling, to an alternative mitigation approach of using a screen or the dolly or to stop piling or no mitigation.~~
- 1.2.1.8 ~~4.2.1.7~~ If there is sufficient headroom to permit a change to the mitigation strategy, measured noise levels will be analysed within two days of each pile for the first five piles following the change in strategy. Should these measurements identify the potential for the threshold values outlined in section 1.1.4.2 to be exceeded during these first piles, or any thereafter, the original mitigation strategy, as outlined in Table 25.8.2, will be reverted to.

1.2.2 External communications

- 1.2.2.1 The Developer will carry out external communications, notifications and reporting in relation to Proposed Development activities in line with the commitments made in the EIAR and in compliance with the requirements of the consent conditions.

1.3 References

British Standards Institution (2014), BS 5228-1:2009+A1:2014: Code of practice for noise and vibration control on construction and open sites – Part 1: Noise