APPENDIX 12-6

BASELINE NOISE SURVEY FOR GRID CONNECTION

APPENDIX 12-6. BASELINE NOISE SURVEY FOR GRID CONNECTION

An environmental noise survey was conducted at six locations in order to quantify the existing noise environment in the vicinity of the proposed underground cable route. The survey was conducted in general accordance with ISO 1996: 2017: Acoustics – Description, measurement and assessment of environmental noise.

Noise Measurement Locations

The noise measurement locations were selected to represent the noise environment at the NSLs along the underground cable route.

The monitoring locations for this survey are described below and illustrated in Figure 12-9-1.

Table A12-6-1 Noise Monitoring Coordinates

Name	ITM Coordinates	
	N	E
AT1	591388	647011
AT2	589706	646754
AT3	585259	649174
AT4	577764	651420
AT5	572144	650842
AT6	568963	651498

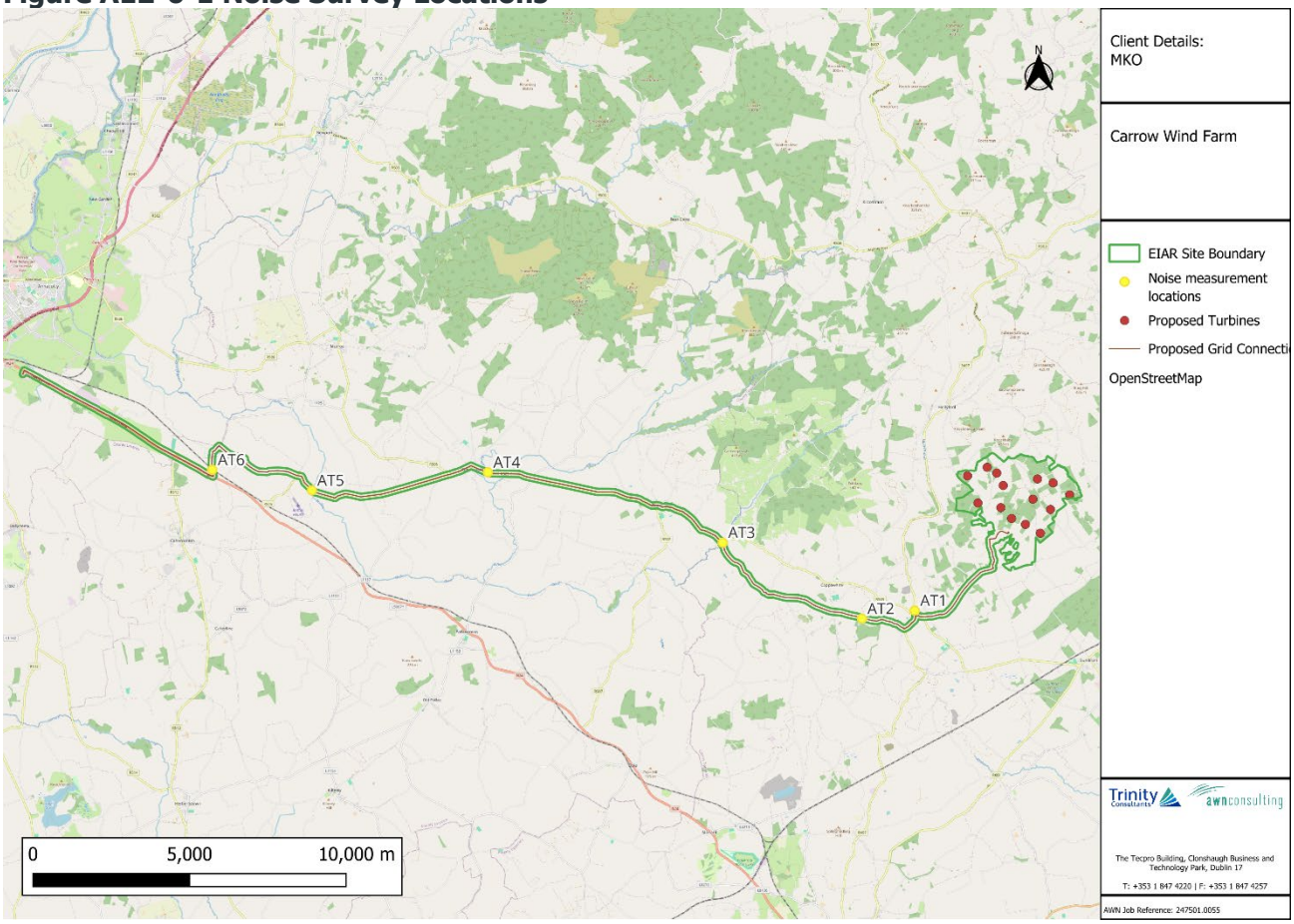
Personnel and Instrumentation

The noise survey was undertaken by AWN Consulting using Rion NL-52 and Rion NL-53 sound level meters and were calibrated using Rion NC-75 and Bruel & Kjaer 4231 type calibrators. The specific equipment details are summarised in Table 2-2.

Table A12-9-2. Noise Monitoring Equipment

Type	Manufacturer	Equipment Model	Serial Number	Calibration Date
Sound Level Meter	Bruel & Kjaer	Type 2250	2818091	22 Nov 2023
Calibrator	Bruel & Kjaer	Type 4231	2236026	20 Feb 2024

Figure A12-6-1 Noise Survey Locations



Survey Results

The survey results for the attended monitoring locations are presented in Table A12-6-3.

Table A12-6-3. Attended Noise Monitoring Results

Location	Date	Period	Time	Measured Noise Levels (dB re.2x10-5Pa)	
				L_{Aeq}	L_{A90}
AT1	4 Decemeber 2024	Day	11:29	61	50
			12:46	63	50
			13:56	62	51
AT2	4 Decemeber 2024	Day	11:53	56	30
			13:05	58	31
			14:15	56	35
AT3	4 Decemeber 2024	Day	12:17	55	51
			13:29	57	51
			14:40	57	51
AT4	4 Decemeber 2024	Day	15:15	71	42
			16:35	70	40
			18:03	70	40
AT5	4 Decemeber 2024	Day	15:40	67	46
			17:05	67	49
			18:29	65	45
AT6	4 Decemeber 2024	Day	16:03	58	52
			17:33	58	51
			18:51	56	49

Location AT1

Audible noise sources noted location AT1 water flowing in a nearby stream, intermittent traffic and birdsong. Ambient daytime noise levels were measured in the range of 61 to 63 dB $L_{Aeq, 15min}$. Background daytime noise levels were in the range 50 to 51 dB $L_{A90, 15min}$.

Location AT2

Audible noise sources noted location AT2 were local road traffic, distant traffic, farmyard activity birdsong, and dogs barking. Ambient daytime noise levels were measured in the range of 56 to 58 dB $L_{Aeq, 15min}$. Background daytime noise levels were in the range 30 to 35 dB $L_{A90, 15min}$.

Location AT3

Audible noise sources noted location AT3 were local road traffic, flowing water, birdsong, and dogs barking. Ambient daytime noise levels were measured in the range of 55 to 57 dB $L_{Aeq, 15min}$. Background daytime noise levels were of the order of 51 dB $L_{A90, 15min}$.

Location AT4

Audible noise sources noted location AT4 included road traffic, roadworks near the bridge, a reversing alarm, dogs barking and birdsong. Ambient daytime noise levels were measured in the range of 70 to 71 dB $L_{Aeq, 15min}$. Background daytime noise levels were in the range 40 to 42 dB $L_{A90, 15min}$.

Location AT5

The main noise sources at location N5 were local road traffic with road traffic, birdsong and farmyard activity. Ambient daytime noise levels were measured in the range of 65 to 67 dB $L_{Aeq, 15min}$. Background daytime noise levels were in the range 45 to 49 dB $L_{A90, 15min}$.

Location AT6

The main noise sources at location N6 were local road traffic with distant road traffic audible during lulls. Passing trains were audible during the second and third measurement period. Ambient daytime noise levels were measured in the range of 56 to 58 dB $L_{Aeq, 15min}$. Background daytime noise levels were in the range 49 to 52 dB $L_{A90, 15min}$.