DOGGER BANK D WIND FARM

Preliminary Environmental Information Report

Volume 2
Appendix 25.4 Construction Traffic Noise Assessment

Document Reference No: 2.25.4
Date: June 2025
Revision: V1

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Document Title:	**Volume 2, Appendix 25.4 Construction Traffic Noise Assessment**
Document BIM No.	**PC6250-RHD-XX-ON-RP-EV-0100**
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Prepared For:	**Dogger Bank D Offshore Wind Farm**

Revision No.	Date	Status / Reason for Issue	Author	Checked By	Approved By
V1	27/05/2025	Final	BC / NH	AT	RH

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Glossary

Term	Definition
Baseline	The existing conditions as represented by the latest available survey and other data which is used as a benchmark for making comparisons to assess the impact of the Project.
Decibels (dB)	A logarithmic ratio of two values of a variable. The decibel is not a true measurement unit nor is it exclusive to noise assessments. Decibels are used because they can represent very wide ranges of ratios (from trillionths and billionths to billions and trillions) with a small range of decibel values. Decibels can be used to represent measured values by using a known reference value in the ratio. When using decibels to measure something it is therefore important to specify what variable is being measured and what reference level has been used. This is done by adding a reference value statement in the form dB re x units, where the units indicate the variable being measured and x is the reference value. As the decibel is used in acoustics to represent a range of sound level parameters, there is a standardised notation system. This takes the form of an italic capital letter 'L' (referring to 'level') and subscript characters which give specific details of what is being represented. Decibels are used in noise assessments because the human ear responds to sound pressure in a logarithmic way and the quantities measured in acoustics vary over wide ranges. Because decibels are logarithmic, they must be added, subtracted, multiplied, divided and averaged using different techniques from normal, linear, quantities.
Effect	An effect is the consequence of an impact when considered in combination with the receptor's sensitivity / value / importance, defined in terms of significance.
Environmental Impact Assessment (EIA)	A 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 and includes the publication of an Environmental Statement.
Haul Roads	Temporary tracks set aside to facilitate transport access during onshore construction works.
Impact	A change resulting from an activity associated with the Project, defined in terms of magnitude.
L_A or L_{pA}, L_{WA}	Within its operating limits a precision measurement microphone measures all frequencies the same so the output it produces does not reflect what we would hear. When considering impacts on humans, it is therefore often necessary to apply an A-weighting to the measured sound frequency spectrum. When A-weighted, the Sound Pressure Level Lp becomes LpA (or LA) and the Sound Power Level LW becomes LWA.

Noise	No strict definition and is often used interchangeably with sound. However, it is usually taken to mean unwanted sound.
Onshore Converter Station (OCS)	A compound containing electrical equipment required to stabilise and convert electricity generated by the wind turbines and transmitted by the export cables into a more suitable voltage for grid connection into Birkhill Wood Substation.
Preliminary Environmental Information Report (PEIR)	The PEIR provides a draft environmental assessment and information to support and inform the statutory consultation process in the pre-application phase. The PEIR will be updated to produce the Project's ES that will accompany the DCO application.
Sound Power Level	The total amount of sound produced by a source. It cannot be measured directly but can be calculated from Sound Pressure Level measurements in known conditions. It can be used to predict the Sound Pressure Level at any point. Sound Power Level is expressed in decibels with a reference level of 1x10-12 W (LW in dB re 1 pW).
Study Areas	A geographical area and / or temporal limit defined for each EIA topic to identify sensitive receptors and assess the relevant likely significant effects.
The Project	Dogger Bank D (DBD) Offshore Wind Farm Project, also referred to as DBD in this PEIR.

25.4 Construction Traffic Noise Assessment

25.4.1 Introduction

1. This appendix to the Dogger Bank D Offshore Wind Farm (hereafter 'the Project' or 'DBD') Preliminary Environmental Information Report (PEIR) supports **Volume 1, Chapter 25 Noise and Vibration.** This appendix forms part of the PEIR for the onshore elements of the Project.

2. The purpose of this appendix is to present the details of the construction road traffic noise assessment including the traffic data and calculated construction traffic noise impacts on each road link. The results of these calculations are used in the assessment of construction traffic noise effects presented in **Section 25.7.1.3** of **Volume 1, Chapter 25 Noise and Vibration**.

25.4.2 Approach to Assessment

3. Construction traffic noise impacts along existing roads are estimated based on the Calculation of Road Traffic Noise (1988) (CRTN) methodology for the calculation of the Basic Noise Level (BNL) at a reference distance of 10m from the nearside carriageway. Predictions are undertaken for both the 'with' and 'without' construction traffic scenarios, for each road link in the construction traffic model.

4. The forecast future baseline data (i.e. without construction traffic scenario) are provided for the year 2029 as this is when Project construction heavy vehicle traffic flows are likely to peak. The 'with construction traffic' scenario is the sum of the baseline and the peak construction traffic.

5. Details of the road network study area for the construction phase traffic assessment has been provided by the traffic Environmental Impact Assessment (EIA) specialists, along with Annual Average Weekday Traffic (AAWT) 18-hour (hr) flows, the percentage of Heavy Goods Vehicles (HGV) and speed data for each road link (see **Volume 1, Chapter 26 Traffic and Transport** for further details).

6. In order to determine impacts, the assessment of construction traffic noise compares the calculated BNL with and without the construction traffic. Any changes in traffic noise levels due to a corresponding change in volume and composition is assessed using the impact magnitude criteria detailed in **Table 25.4-1**, which is reproduced from Table 3.17 of the *'Design Manual for Roads and Bridges LA111 Noise and Vibration'* (2020) (DMRB).

Table 25.4-1 Traffic Noise Magnitude of Impact at Receptors

Magnitude of Impact	Increase in BNL of Closest Public Road Used for Construction Traffic (Decibels (dB))
Negligible	Less than 1.0
Minor	Greater than or equal to 1.0 and less than 3.0
Moderate	Greater than or equal to 3.0 and less than 5.0
Major	Greater than or equal to 5.0

7. For those links on which the predicted baseline traffic flows are below the validated CRTN calculation range (less than 1000 vehicles per 18hrs), the calculation method detailed in BS 5228-1:2009 + A1:2014 *'Code of practice for noise and vibration control on open sites [4] Annex F 'Method for mobile plant using a regular well-defined route (e.g. haul roads)'* has been used to determine the noise from the construction traffic HGV. This methodology predicts the noise level at a receiving position by accounting for vehicle average speed, number of vehicles per hour, the HGV sound power level (108 dB L_{WA}) and the receptor distance to the middle of the road.

8. The noise from the link has been assessed using the criteria for daytime impacts used to identify construction noise effects, as shown in **Table 25.4-2** and described more fully in **Volume 1, Chapter 25 Noise and Vibration**, where the terminology used in the table is also defined.

Table 25.4-2 Magnitude Criteria for Construction Noise Impacts

Magnitude of Impact	Construction Noise Level (dB, $L_{Aeq,T}$)			Noise Policy Statement for England (NPSE) / Planning Practice Guidance (PPG) Category
	Daytime	Evenings and weekends	Night-time	
Negligible	≤65	≤55	≤45	-
Low	>65 to ≤68	>55 to ≤58	>45 to ≤48	Lower end of range is equivalent to the lowest observable adverse effect level (LOAEL)
Medium	>68 to ≤70	>58 to ≤60	>48 to ≤50	Lower end of range is equivalent to the significant observed adverse effect level (SOAEL)
High	>70	>60	>50	-

9. The same analysis undertaken for assessing potential effect significance for construction noise has been used to determine the effect significance for these construction traffic noise impacts.

25.4.3 Data and Assessment

25.4.3.1 Off-Site Construction Traffic Data

10. The traffic data detailed in this section is provided by the traffic EIA specialists for the Project. The link IDs have been taken from **Appendix 26.2 Transport Assessment**. The supplied traffic speed data were determined from either surveys or posted speed limit (PSL). Where the PSL was provided, the speed for use in the BNL calculation has been determined using the road classification, as per Section 14.2 of CRTN. Some road links included sections with different speed limits. In this case the worst-case speed (i.e. resulting in the greatest change in noise level) has been determined. The traffic data used in the BNL calculations are shown in **Table 25.4-3**.

11. It is noted that the roads / links listed below were omitted from the noise assessment as they did not present any change in traffic flow:

- Link 70 – North Turnpike; and
- Link 78 – Highgate.

Table 25.4-3 Peak Construction Road Traffic Data (18hr AAWT)

Link ID	Description	Speed (km/hour)	2029 Baseline		2029 Baseline Plus Peak Construction Traffic	
			18-hour AAWT	Total HGV	18-hour AAWT	Total HGV
1	A165 north of Allison Lane	70/81*	9,493	628	9,525	628
2	A165 between Allison Lane and Skipsea Road	50	9,493	628	9,651	754
3	A165 Between Skipsea Road and Grange Road	88	9,520	783	10,567	1,147
4	A165 Between Grange Road and Brandesburton Roundabout	70/81*	9,836	591	11,214	955
5	A165 between A1035 and New Road	60	11,593	769	12,970	1,132
6	A1035 between Leven Roundabout and White Cross Roundabout	81	19,250	313	20,634	676
7	A1035 between White Cross Roundabout and Hall Farm	70	21,915	825	23,365	1,235
8	A1035 between Hall Farm and Swinemoor Lane Roundabout	50/70*	21,915	825	23,499	1,235
9	A1035 between Swinemoor Roundabout and Driffiled Roundabout	81	15,419	863	16,660	1,274
10	A1035 between Driffiled Roundabout and Dog Kennel Lane Roundabout	81	13,262	1,023	14,769	1,448
11	A1035 between Dog Kennel Lane Roundabout and Killingravesworld Roundabout	81	13,313	1,149	14,946	1,574
12	A1035 between Killingravesworld Roundabout and Jocks Lodge Roundabout	97	22,562	1,566	24,251	1,991

Link ID	Description	Speed (km/hour)	2029 Baseline		2029 Baseline Plus Peak Construction Traffic	
			18-hour AAWT	Total HGV	18-hour AAWT	Total HGV
13	A164 Jocks Lodge between A1079 and A164 northern diverge point	97	36,803	1,673	39,186	2,098
14	A164 Northbound only from southern diverge point	97	18,769	853	19,999	1,066
15	A164 southbound only from northern diverge point	97	18,033	820	19,263	1,032
16	A164 from Southern diverge point to Dunflat Road	70	36,803	1,673	39,186	2,098
17	A164 between Dunflat Road and the B1233	70	36,803	1,673	39,186	2,098
18	A164 between B1233 and Castle Road	70	36,803	1,673	38,686	2,098
19	A164 between Castle Road and the B1232	60	36,803	1,673	38,423	2,098
20	A164 between the B1232 and B1231	81	21,075	1,593	22,458	2,018
21	A164 between the B1231 and Boothferry Road	81	21,075	1,593	22,299	2,018
22	A15 - Boothferry Road	60	34,313	3,552	35,018	3,978
23	A63 - Hull West	97	51,341	7,963	52,045	8,388
24	A63 between Boothferry Road and the A1166	97	69,887	7,986	70,312	8,411
25	A63 between the A1166 and Daltry Street	97	62,965	6,888	63,390	7,313
26	A63 between Daltry Street and the A1165	50	52,780	6,622	53,251	7,047

Link ID	Description	Speed (km/hour)	2029 Baseline		2029 Baseline Plus Peak Construction Traffic	
			18-hour AAWT	Total HGV	18-hour AAWT	Total HGV
27	A63 between the A1165 and Southcoates Roundabout	97	30,101	3,605	30,526	4,030
28	A1033 (between Southcoates Roundabout to Northern Gateway	60	37,785	5,138	38,240	5,563
29	A1033 (between Northern Gateway and Marfleet Roundabout)	60	37,785	5,138	38,240	5,563
30	A1033 (between Marfleet Roundabout and B1362)	60	34,805	4,021	35,279	4,446
31	A1033 (between Mount Pleasant North Roundabout and A165 Holderness Road)	50	19,656	1,583	20,156	2,008
32	A165 Holderness Road (between A1033 and Maybury Road)	50	13,652	984	13,717	984
33	A165 Holderness Road (between Maybury Road and Main Road)	50/60*	20,206	1,338	20,693	1,749
34	A165 (between Main Road and Main Street)	50	25,908	765	26,399	1,176
35	A165 (between Main Street and Skirlaugh)	50	25,908	765	26,394	1,176
36	A165 - Skirlaugh	50	9,398	696	9,888	1,107
37	A165 (between Skirlaugh and the A1035)	81	9,065	628	9,571	1,038
38	A1033 (between Holderness Road and Sutton Road)	50/60*	24,902	2,426	25,461	2,851
39	A1033 (between Howell Road and Stockholme Road)	50	19,274	927	19,814	1,352

Link ID	Description	Speed (km/hour)	2029 Baseline		2029 Baseline Plus Peak Construction Traffic	
			18-hour AAWT	Total HGV	18-hour AAWT	Total HGV
40	A1033 (between Stockholm Road and Roebank Roundabout)	50	19,274	927	19,814	1,352
41	A1033 (between Roebank Roundabout and Dunswell Roundabout)	60	19,656	1,583	20,453	2,008
42	A1079 (between Dunswell Roundabout and Jocks Lodge Roundabout)	81	21,745	1,391	22,856	1,816
43	A1174 (between Dunswell Roundabout and the A164)	50	15,189	640	15,519	640
44	A164 (between Ward Way and the A1174)	70	12,973	666	13,063	666
45	A164 (between the A1174 and Jocks Lodge)	80	12,973	666	13,924	964
46	Jocks Lodge (between Minster Way and the A1079)	81	23,915	1,180	24,866	1,478
47	A1174 (between Dunswell Roundabout and the A164)	50	17,529	902	17,949	902
48	Neptune Street	34	1,324	197	1,749	622
49	Jackson Street / Daltry Street	35	12,611	372	13,036	797
50	English Street / Kingston Street / Commercial Road	44	8,927	102	9,352	527
51	Maybury Road / MaA compound containing electrical equipment required to stabilise and convert electricity generated by the wind turbines and transmitted by the export cables into a more suitable voltage for grid connection into Birkhill Wood Substation. rfleet Lane	45	12,085	377	12,569	787

Link ID	Description	Speed (km/hour)	2029 Baseline		2029 Baseline Plus Peak Construction Traffic	
			18-hour AAWT	Total HGV	18-hour AAWT	Total HGV
52	Coppleflat Lane between A164 to Onshore Converter Station (OCS)	82	3,237	107	4,499	477
53	Bentley Lane between OCS and Broadgate	82	3,237	107	3,607	477
54	B1248 (between the A1035 and Rootas Lane)	74	12,864	689	13,221	803
55	B1248 (between Rootas Lane and Main Street)	82	9,593	741	9,711	741
56	Rootas Lane (east)	97	100	3	280	61
57	Walkington Heads	82	5,155	273	5,331	390
58	Leconfield Road / Miles Lane	64	3,758	138	3,893	195
59	West Street - Leven	50	206	7	297	63
60	Killingwoldgraves Lane	71	9,286	433	9,462	549
61	Coppleflat Lane (between Walkington Heads and Broadgate)	82	3,237	107	3,324	107
62	York Road	76	6,093	214	6,190	214
63	A164 (between Driffiled Road Roundabout and Old Road)	74	10,283	736	10,810	877
64	Old Road (between A164 and Miles Lane)	50	2,476	21	2,488	21
65	A164 (between Old Road and Onshore Export Cable Corridor (ECC))	70	9,656	564	10,195	705

Link ID	Description	Speed (km/hour)	2029 Baseline		2029 Baseline Plus Peak Construction Traffic	
			18-hour AAWT	Total HGV	18-hour AAWT	Total HGV
66	A164 (between Onshore EEC and Station Road)	70	9,656	564	9,857	649
67	Station Road	52	222	35	403	120
68	Aike Lane	52	222	35	403	120
69	Manor Farm Cottages	81	109	13	203	79
71	B1249 (Bridlington Balk)	81	1,718	87	1,995	272
72	North Froddingham Road	72	1,785	73	2,062	258
73	Dunnington Lane	76	192	74	377	198
74	A1033 (between Mount Pleasant North Roundabout and Southcoates Roundabout)	59	11,222	1,210	11,464	1,423
75	A63 (Off ramp to Mount Pleasant North Roundabout)	50	3,883	599	4,141	812
76	A1079 (between Killingravesworld Roundabout and west Bishop Burton)	50	12,263	1,070	12,664	1,128
77	A1079 (between Bishop Burton and Highgate)	78	10,194	1,015	10,429	1,015
79	Grange Road	81	761	65	1,341	303
80	A15 - Humber Bridge	80	34,183	3,142	34,702	3,142

Link ID	Description	Speed (km/hour)	2029 Baseline		2029 Baseline Plus Peak Construction Traffic	
			18-hour AAWT	Total HGV	18-hour AAWT	Total HGV
81	West Street - West of Leven	50/81	206	7	285	63
82	Beverley Road (from A1035 to West Street)	54	4,574	192	4,664	248
83	North Street (from West Street to Onshore ECC)	73	2,340	117	2,396	173
84	New Road (from A165 to Onshore ECC)	55	1,813	137	1,869	193
85	Dunflat Road	63	275	41	424	119
86	B1242 (between Cliff Road and the Onshore ECC)	87	3,780	183	3,990	309
87	Beeford Road (between the A165 to Bewholme Lane)	65	1,589	78	1,798	204
88	B1242 (between the A165 to Skipsea	57	3,355	161	3,482	287
98	B1230 (Broadgate, East)	61	7,579	249	7,584	249
99	Heigholme Lane	81	103	8	170	64
100	Scorborough Lane	57	56	4	330	79

* Both provided speeds for this link resulted in the same BNL change (to 0.1 dB). Hence, both are included.

25.4.3.2 Noise from Off-Site Construction Traffic Assessment

12. Off-site construction traffic noise impacts along existing roads have been estimated based on the CRTN methodology for the calculation of the BNL at a reference distance of 10m from the nearside carriageway. Calculations have been undertaken for the forecast 2029 future year baseline and forecast 2029 future year baseline plus peak construction traffic scenarios, for each road link on which construction traffic data has been supplied. The magnitude of impact depends on the change in BNL between these scenarios.

13. The results of these calculations are provided in **Table 25.4-4**.

Table 25.4-4 Calculated Off-Site Construction Traffic Noise Impacts

Link ID	Road	2029 Baseline BNL (dB $L_{A10,18hr}$)	2029 Baseline Plus Peak Construction BNL (dB $L_{A10,18hr}$)	Overall Change (dB)	Magnitude of Impact
1	A165 north of Allison Lane	71.0	71.0	0.0	Negligible
2	A165 between Allison Lane and Skipsea Road	68.3	68.7	0.4	Negligible
3	A165 Between Skipsea Road and Grange Road	71.9	72.7	0.8	Negligible
4	A165 Between Grange Road and Brandesburton Roundabout	71.0	72.1	1.1	Low
5	A165 between A1035 and New Road	70.0	70.9	0.9	Negligible
6	A1035 between Leven Roundabout and White Cross Roundabout	73.0	73.7	0.7	Negligible
7	A1035 between White Cross Roundabout and Hall Farm	73.0	73.6	0.6	Negligible
8	A1035 between Hall Farm and Swinemoor Lane Roundabout	73.0	73.7	0.7	Negligible
9	A1035 between Swinemoor Roundabout and Driffiled Roundabout	72.9	73.6	0.7	Negligible
10	A1035 between Driffiled Roundabout and Dog Kennel Lane Roundabout	71.7	72.6	0.9	Negligible
11	A1035 between Dog Kennel Lane Roundabout and Killingravesworld Roundabout	72.8	73.7	0.9	Negligible
12	A1035 between Killingravesworld Roundabout and Jocks Lodge Roundabout	74.8	75.4	0.6	Negligible
13	A164 Jocks Lodge between A1079 and A164 northern diverge point	77.9	78.3	0.4	Negligible

Link ID	Road	2029 Baseline BNL (dB $L_{A10,18hr}$)	2029 Baseline Plus Peak Construction BNL (dB $L_{A10,18hr}$)	Overall Change (dB)	Magnitude of Impact
14	A164 Northbound only from southern diverge point	75.0	75.4	0.4	Negligible
15	A164 southbound only from northern diverge point	74.8	75.2	0.4	Negligible
16	A164 from Southern diverge point to Dunflat Road	75.4	75.9	0.5	Negligible
17	A164 between Dunflat Road and the B1233	75.4	75.9	0.5	Negligible
18	A164 between B1233 and Castle Road	75.4	75.9	0.5	Negligible
19	A164 between Castle Road and the B1232	74.5	74.9	0.4	Negligible
20	A164 between the B1232 and B1231	74.6	75.2	0.6	Negligible
21	A164 between the B1231 and Boothferry Road	74.6	75.2	0.6	Negligible
22	A15 - Boothferry Road	75.5	75.8	0.3	Negligible
23	A63 - Hull West	81.0	81.1	0.1	Negligible
24	A63 between Boothferry Road and the A1166	81.8	81.9	0.1	Negligible
25	A63 between the A1166 and Daltry Street	77.5	77.7	0.2	Negligible
26	A63 between Daltry Street and the A1165	77.1	77.2	0.1	Negligible
27	A63 between the A1165 and Southcoates Roundabout	78.2	78.4	0.2	Negligible
28	A1033 (between Southcoates Roundabout to Northern Gateway)	76.5	76.7	0.2	Negligible

Link ID	Road	2029 Baseline BNL (dB $L_{A10,18hr}$)	2029 Baseline Plus Peak Construction BNL (dB $L_{A10,18hr}$)	Overall Change (dB)	Magnitude of Impact
29	A1033 (between Northern Gateway and Marfleet Roundabout)	76.5	76.7	0.2	Negligible
30	A1033 (between Marfleet Roundabout and B1362)	75.8	76.0	0.2	Negligible
31	A1033 (between Mount Pleasant North Roundabout and A165 Holderness Road)	71.8	72.3	0.5	Negligible
32	A165 Holderness Road (between A1033 and Maybury Road)	70.0	70.0	0.0	Negligible
33	A165 Holderness Road (between Maybury Road and Main Road)	72.4	72.9	0.5	Negligible
34	A165 (between Main Road and Main Street)	71.6	72.1	0.5	Negligible
35	A165 (between Main Street and Skirlaugh)	71.6	72.1	0.5	Negligible
36	A165 - Skirlaugh	68.4	69.5	1.1	Low
37	A165 (between Skirlaugh and the A1035)	70.9	71.8	0.9	Negligible
38	A1033 (between Holderness Road and Sutton Road)	74.0	74.4	0.4	Negligible
39	A1033 (between Howell Road and Stockholme Road)	70.9	71.5	0.6	Negligible
40	A1033 (between Stockholm Road and Roebank Roundabout)	70.9	71.5	0.6	Negligible
41	A1033 (between Roebank Roundabout and Dunswell Roundabout)	72.6	73.2	0.6	Negligible
42	A1079 (between Dunswell Roundabout and Jocks Lodge Roundabout)	74.6	75.1	0.5	Negligible
43	A1174 (between Dunswell Roundabout and the A164)	69.6	69.7	0.1	Negligible

Link ID	Road	2029 Baseline BNL (dB $L_{A10,18hr}$)	2029 Baseline Plus Peak Construction BNL (dB $L_{A10,18hr}$)	Overall Change (dB)	Magnitude of Impact
44	A164 (between Ward Way and the A1174)	71.1	71.1	0.0	Negligible
45	A164 (between the A1174 and Jocks Lodge)	72.0	72.6	0.6	Negligible
46	Jocks Lodge (between Minster Way and the A1079)	74.7	75.1	0.4	Negligible
47	A1174 (between Dunswell Roundabout and the A164)	70.5	70.6	0.1	Negligible
48*	Neptune Street	59.0	64.0	5.0	High
49	Jackson Street / Daltry Street	67.2	68.6	1.4	Low
50	English Street / Kingston Street / Commercial Road	65.6	67.5	1.9	Low
51	Maybury Road / Marfleet Lane	67.9	69.0	1.1	Low
52*	Coppleflat Lane between A164 to OCS	65.7	68.6	2.9	Low
53*	Bentley Lane between OCS and Broadgate	65.7	68.0	2.3	Low
54	B1248 (between the A1035 and Rootas Lane)	71.4	71.7	0.3	Negligible
55	B1248 (between Rootas Lane and Main Street)	71.4	71.4	0.0	Negligible
57	Walkington Heads	68.2	68.7	0.5	Negligible
58*	Leconfield Road / Miles Lane	64.8	65.3	0.5	Negligible
60	Killingwoldgraves Lane	69.6	69.9	0.3	Negligible

Link ID	Road	2029 Baseline BNL (dB $L_{A10,18hr}$)	2029 Baseline Plus Peak Construction BNL (dB $L_{A10,18hr}$)	Overall Change (dB)	Magnitude of Impact
61*	Coppleflat Lane (between Walkington Heads and Broadgate)	65.7	65.8	0.1	Negligible
62	York Road	68.0	68.0	0.0	Negligible
63	A164 (between Driffiled Road Roundabout and Old Road)	70.8	71.2	0.4	Negligible
64*	Old Road (between A164 and Miles Lane)	60.3	60.3	0.0	Negligible
65	A164 (between Old Road and Onshore ECC)	70.0	70.4	0.4	Negligible
66	A164 (between Onshore EEC and Station Road)	70.0	70.2	0.2	Negligible
71*	B1249 (Bridlington Balk)	61.4	64.0	2.6	Low
72*	North Froddingham Road	61.7	64.2	2.5	Low
74	A1033 (between Mount Pleasant North Roundabout and Southcoates Roundabout)	71.1	71.5	0.4	Negligible
75*	A63 (Off ramp to Mount Pleasant North Roundabout)	67.3	68.1	0.8	Negligible
76	A1079 (between Killingravesworld Roundabout and west Bishop Burton)	72.2	72.4	0.2	Negligible
77	A1079 (between Bishop Burton and Highgate)	71.9	72.0	0.1	Negligible
80	A15 - Humber Bridge	76.9	77.0	0.1	Negligible
82	Beverley Road (from A1035 to West Street)	64.8	65.2	0.4	Negligible

Link ID	Road	2029 Baseline BNL (dB $L_{A10,18hr}$)	2029 Baseline Plus Peak Construction BNL (dB $L_{A10,18hr}$)	Overall Change (dB)	Magnitude of Impact
83*	North Street (from West Street to Onshore ECC)	63.5	64.0	0.5	Negligible
84*	New Road (from A165 to Onshore ECC)	60.8	61.5	0.7	Negligible
86*	B1242 (between Cliff Road and the Onshore ECC)	67.2	68.0	0.8	Negligible
87*	Beeford Road (between the A165 to Bewholme Lane)	60.1	62.3	2.2	Low
88*	B1242 (between the A165 to Skipsea)	63.9	64.9	1.0	Low
98	B1230 (Broadgate, East)	67.4	67.4	0.0	Negligible

* AAWT total vehicular 18hr flows between 1000 and 4000 vehicles, hence low flow correction applied.

14. Based on the information presented in **Table 25.4-4,** 64 links have a negligible magnitude of impact, 11 links have a low magnitude of impact and one link (link 48, Neptune Street in Hull) has a high magnitude of impact.

15. The results in **Table 25.4-4** relate to the roads on which traffic flows are within the criterion stated in CRTN for reliable BNL calculations to be undertaken (minimum of 1000 vehicles per 18hr AAWT). For those roads on which the traffic flows are below this criterion, as per the methodology detailed in **Paragraph 7**, the closest residential dwelling has been identified, and the distance from the centre of the carriageway determined. The results of the calculation of the Project's HGV construction traffic noise for these links are provided in **Table 25.4-5**, along with the determined magnitude of impact.

Table 25.4-5 Predicted $L_{Aeq,1h}$ Due to Construction HGV Only at Road Links with Low Traffic Flows

Link ID	Road	HGV per hour	Speed (km/h)	Distance From Receptor (m)	Predicted $L_{Aeq,1h}$ dB (Façade)	Magnitude of Impact
56	Rootas Lane	5	97	90	43	Negligible
59	West Street	5	48	3.5	66	Low
67	Station Road	7	52	11	61	Negligible
68	Aike Lane	7	52	3	68	Low
69	Manor Farm Cottages	6	97	6.5	27	Negligible
73	Dunnington Lane	10	59	220	36	Negligible
79	Grange Road	20	64	24	37	Negligible
81	West Street	5	48	3.5	66	Low
85	Dunflat Road	7	63	20	24	Negligible
99	Heigholme Lane	5	97	14	54	Negligible
100	Scorborough Lane	6	57	13	56	Negligible

16. The determined construction traffic noise impact at the links with traffic flows below the minimum criterion for accurate BNL calculations is in all cases either negligible or low.

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List of Acronyms

Acronym	Definition
AAWT	Annual Average Weekday Traffic
BNL	Basic Noise Level
CRTN	Calculation of Road Traffic Noise
DBD	Dogger Bank D
DMRB	Design Manual for Roads and Bridges
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
HGV	Heavy Goods Vehicles
NPSE	Noise Policy Statement for England
LOAEL	Lowest Observable Adverse Effect Level
OCS	Onshore Converter Station
PEIR	Preliminary Environmental Information Report
PPG	Planning Practice Guidance
PSL	Posted Speed Limit
SOAEL	Significant Observed Adverse Effect Level