

Marine Scotland Licensing Operations Team (MS-LOT)
Marine Scotland
By email

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27 January 2022

Attn: Marine Scotland Licensing Operations Team (MS-LOT)

**Global Energy Nigg Ltd – Marine License MS-00009032 (Quay Construction)
Request for a Screening Opinion**

We write on behalf of our clients, Global Energy Nigg Ltd, to formally request a screening opinion under The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 for the above-named project. The screening request relates to the proposals to amend the license to include the use of rock armour within the project design. This proposed amendment to the marine construction license is a result of safety issues relating to stability of some sections of the berthing pocket slope.

As required by Paragraph 10 of the above Regulations we have provided information relevant to this proposal (attached) which includes:

- (2) A request for a screening opinion under paragraph (1) must include –
 - a) a description of the location of the proposed works, including a plan sufficient to identify the area in which the works are proposed to be sited;
 - b) a description of the proposed works, including in particular—
 - (i) a list of all of the regulated activities which are proposed;
 - (ii) a description of the physical characteristics of the proposed works and, where relevant, works to be decommissioned; and
 - (iii) a description of the location of the proposed works, with particular regard to the environmental sensitivity of geographical areas likely to be affected;
 - c) a description of the aspects of the environment likely to be significantly affected by the proposed works; and
 - d) a description of any likely significant effects, to the extent of the information available on such effects, of the proposed works on the environment resulting from either, or both, of the following:—
 - (i) the expected residues and emissions and the production of waste, where relevant;
 - (ii) the use of natural resources, in particular soil, land, water and biodiversity.
- (3) A request for a screening opinion may, in addition to the information required in accordance with paragraph (2), also be accompanied by a description of any features of the proposed works or proposed measures envisaged to avoid or prevent significant adverse effects on the environment.
- (4) The information referred to in paragraph (2) is to be compiled taking into account, where relevant—
 - a) the selection criteria set out in schedule 3; and
 - b) the available results of any relevant assessment.

The information provided is drawn from a desk-based appraisal of the site in relation to its environmental setting.

If you have any questions related to the information provided, please do not hesitate to contact the undersigned.

Yours sincerely
for EnviroCentre Ltd

(issued electronically)

Emma Cormack
Principal Consultant

Campbell Fleming
Director

Enc: Nigg East Quay (Marine License MS-00009032 (Construction) – Request for a Screening opinion

CC: Rory Gunn and Stuart Innes (Global Energy Nigg Ltd)

NIGG EAST QUAY (MARINE LICENSE MS-00009032 (CONSTRUCTION) – REQUEST FOR A SCREENING OPINION

Introduction

Global Energy Ltd seek a formal Screening Opinion from Marine Scotland as the Consenting Authority under Regulation 10(1) of the Marine EIA Regulations in respect of the proposal to revise Condition 2.4 of Dredging License MS-00009032 to include the use of rock armour in the construction works. The approximate National Grid Reference (NGR) for the centre of the site is NH 79527 69016 with the site boundary shown in Drawing No SL06904-HBPW-00-ZZ-DR-C-0002, Appendix A.

Site Location

The site is situated south east of Nigg Energy Park at an elevation of 5m above sea level. The proposed entirety of the site boundary is approximately 11.27ha and is comprised of coastal waters and land of the former Dunskeath House.

The Nigg Oil Terminal is located to the immediate north of Nigg Energy Park, with the B9175 and Fearn Peninsula to the east, the area where the Cromarty Firth meets the Moray Firth to the south (known as 'The Sutors') and Nigg Bay to the west (also part of the Cromarty Firth). Adjacent to the south-east of the site, the Cromarty Ferry crosses the entrance to the firth to the west of The Sutors in the summer season from May to September. Access to the facility can be gained via the B9715.

Local Sensitivities

The surrounding area contains several designations within a 5km radius, as illustrated within Drawing No 673123-GIS001, Appendix A. These include the following:

- Cromarty Firth Site of Special Scientific Interest (SSSI), situated approximately 0.59km to the west of the site, designated for intertidal mudflats and sandflats;
- Cromarty Firth Special Protection Area (SPA), situated approximately 0.59km west of the site, designated for a range of non-breeding birds;
- Cromarty Firth Ramsar Site, situated approximately 0.59km west of the site, designated for intertidal mudflats and sandflats and waterfowl assemblage;
- Rosemarkle to Shandwick Coast SSSI, situated approximately 0.76km east of the site, designated for maritime cliffs, geological features and breeding birds;
- Moray Firth Special Area of Conservation (SAC), situated adjacent to the east of the site and designated for bottlenose dolphin;

There are other designations at greater distance, for example the Dornoch Firth and Morrich More SAC, but these areas are not in the immediate vicinity of the site.

June 2019 Environmental Impact Assessment

An Environmental Impact Assessment Report (reference 671906/001, hereafter referred to as the EIAR) was prepared under the Marine EIA Regulations to accompany marine licence applications for

construction and dredging/disposal. The applications were submitted to Marine Scotland in June 2019.

The EIAR referred to the formation of a new East Quay at Nigg Energy Park comprising the construction of a perimeter-piled quay combi-wall, capital dredging, demolition of existing outbuildings associated with the former Dunskeath House and subsequent construction of an onshore laydown area with associated lighting, fencing and access.

Climate Change

Climate change has taken a prominent position within policy and legislation at a national level, with the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019¹ amending the Climate Change (Scotland) Act 2009². The 2019 Act sets a target date of 2045 for Scotland reaching net-zero emissions.

In addition, under Schedule 4(4), the Marine EIA Regulations require:

“A description of the factors specified in Regulation 5(3) likely to be significant affected by the works... (Including) climate (for example greenhouse gas emissions, impacts relevant to adaption)”

Note: Climate change was considered in the EIAR in Chapter 5 Water Environment and Coastal Processes specifically in relation to its impact on flooding.

Construction Marine License and Proposed Variation

The Marine License MS-00009032 (Construction) was granted in December 2020. Condition 2.4 of the license authorised the use of certain types and associated maximum quantities of construction materials that there required in connection with the construction of the development. These construction materials and associated maximum quantities are listed below:

- 3,800 tonnes of steel;
- 32 tonnes of timber;
- 4,780 tonnes concrete;
- 4,015 tonnes of silt;
- 19,668 tonnes of sand;
- 3,319 tonnes of gravel; and
- 1,230 tonnes of Cathodic Protection Anodes (Al-Zn-In).

In relation to the construction materials, Condition 3.1.13 of the license states

“that all substances and materials used during the execution of the works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.”

¹ Climate Change (Emission Reduction Targets) (Scotland) Act 2019 (asp 15). Available at: <https://www.legislation.gov.uk/asp/2019/15/enacted>

² Climate Change (Scotland) Act 2009 (asp 12). Available at: <https://legislation.gov.uk/asp/2009/12/contents>

The proposed amendment to the marine license is to include a maximum quantity of 8,830 tonnes (~3,293 m³) of rock armour onto the list of licensed material authorised under Condition 2.4 of the license.

The incorporation of the rock armour into the development design is intended to provide long-term stability to the final dredge slope design as well as minimise maintenance requirements. There are three areas in which the rock armour will be placed as detailed below and shown on Drawing No SL06904-HBPW-))-ZZ-DR-C-0078, Appendix A.

Area 1

For operational reasons, the berthing footprint on the western side of the quay requires a depth of -12m CD. The existing piles at the East Roundhead have a toe level of -9m CD. As a result, the removal of sediment through dredging cannot go deeper at this point due to stability concerns relating to the existing East Roundhead. To accommodate a steeper slope to minimise infringement on the berthing footprint and prevent collapse of the East Roundhead, it is proposed to place circa 611 tonnes (~228 m³) of Type 2 rock armour to face the slope over an area of 0.04 Ha (400 m²).

Area 2

The concern in relation to Area 3 is the existing gabion wall being undermined due to scouring action. On the east side of the quay, approximately 869 tonnes (~324 m³) of Type 2 rock armour is required over an area of 0.05 Ha (500 m²) to reduce the effect of scouring in this area.

Area 3

It is proposed to place circa 7,350 tonnes (~2,741 m³) of Type 1 rock armour over an area of 0.35 Ha (3,500 m²) to stabilise the dredge slope up from the final dredge level.

The specification of the rock armour proposed for the works is provided in Appendix B.

EIA Screening

Under the Marine EIA Regulations, proposals are screened to determine whether they fall within one of the types or scales of development which would require an EIA. In screening an application, consideration is given to whether the proposal would fall into any of the categories set out in Schedules 1 or 2 of the Regulations.

The EIA Regulations do not attempt to define 'significant effects' as each development must be dealt with in its own merits. Schedule 1 of the Regulations lists types and scales of development for which an EIA will always be required. Schedule 2 of the Regulations lists types and scales of development for which an EIA might be required, subject to assessment under Schedule 3.

Assessment in Relation to Schedule 1

The proposed alteration to the works is not of a type/scale listed in Schedule 1 of the Regulations; it is therefore necessary to assess the proposal in terms of Schedule 2.

Assessment in Relation to Schedule 2

The proposed development was originally identified as being a Schedule 2 development as it fell under:

Paragraph 10 (g) - Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1,350 tonnes.

The applicable threshold and criteria related to this paragraph is the area of works exceeds 1 Ha.

The Schedule 2 classes in which the proposed alteration to the works could fall under are:

Paragraph 13 - Any change to or extension of works of a description mentioned in paragraphs 1 to 12 of Column 1 of this table where those works are already authorised, executed or in the process of being executed.

The applicable threshold and criteria in relation to this Paragraph are that the thresholds and criteria in the corresponding part of Column 2 of Schedule 2 applied to the works as changed or extended are met or exceeded and in such a case the change or extension may have significant adverse effects on the environment.

The total area for deposition of rock armour is 0.44 Ha which is within the 1 Ha applicable threshold. All three areas are also within the boundary of the marine licensed construction area. As the site is located in, what is considered to be an environmentally sensitive area, it is necessary to assess the proposed alterations to the site design against the criteria contained in Schedule 3 in order to establish whether the proposed change would be deemed a “significant effect” and thereby require an EIA to accompany any application to vary the marine construction license.

Assessment in Relation to Schedule 3

Schedule 3 of the Regulations provides selection criteria for the screening of Schedule 2 developments. It must be noted that there are no rigid thresholds providing a universal test of whether or not an EIA is required. The proposal must be considered on a case-by case basis by virtue of factors such as its nature, size or location. The fundamental test to be applied in each case is whether that particular type of development proposed, and its specific impacts are likely, in that particular location, to result in significant effects on the environment.

The main concerns in relation to the incorporation of rock armour into the quay design is considered to be:

- Coastal Processes; and
- Marine Environment and Sediment Quality;

All three areas are located within the lee of the newly constructed quay therefore it is considered that the environmental impact from introducing rock armour into these three areas will be dwarfed by the effect the quay will have on coastal processes. Long term rock armour will have a beneficial impact as it will protect the development structures from wave erosion and scouring thereby prolonging the life of the structure. As the 2019 EIAR considered the impact of the quay on coastal processes and thereby defined appropriate mitigation measures to limit any impact as summarised in the Schedule of Mitigation, we are of the opinion that there is no requirement to re-assess Coastal Processes as a result of rock armour being incorporated into the development design.

In relation to the marine environment and sediment quality, Condition 3.1.13 of the marine license stipulates that only inert, uncontaminated material is to be used in the marine environment for construction of the development. The principal contractor has put in place measures to ensure this condition is adhered to. These measures will continue to be followed when emplacing the rock armour. Similar to Coastal Processes, the potential for impacts during construction were assessed in the 2019 EIAR and appropriate mitigation measures identified as detailed in the Schedule of Mitigation. Taking the above into account we are again of the opinion that the impact to the marine water and sediment quality has been suitably addressed in the 2019 EIAR.

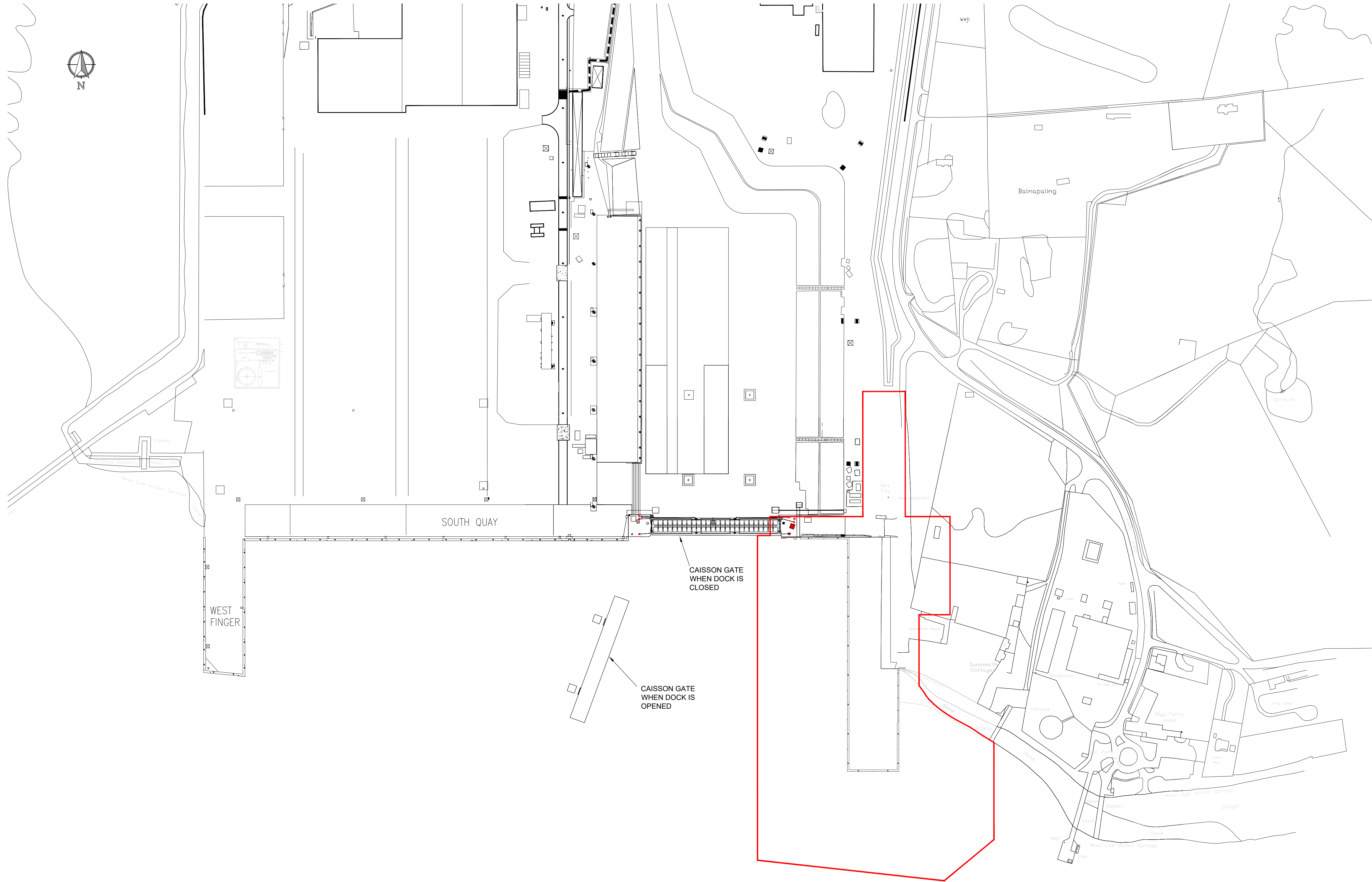
Assessment in Relation to Climate Change

As noted above, Climate change was considered in the 2019 EIAR in Chapter 5 Water Environment and Coastal Processes specifically in relation to its impact on flooding. We are of the opinion that the use of rock armour in the construction of the development will not impact the outcomes of the EIAR assessment of climate change.

Conclusions

In conclusion, we are of the opinion that the pollution prevention measures within the existing CEMP are considered sufficient to avoid any significant impacts on the site or surrounding area and its notable environmental features. Benefits to using rock armour are increasing stability and protection to infrastructure in addition to prolonging the life span of the development and its associated maintenance requirements.

A DRAWINGS



EXISTING SITE PLAN
SCALE 1:2000

NOTES

DENOTES SITE BOUNDARY

CONSTRUCTION

C01	ISSUED FOR CONSTRUCTION	KB	TF	PM	10.06.21
P02	FOR ACCEPTANCE	KB	TF	PM	29.04.21
P01	FIRST ISSUE	KB	TF	PM	12.03.21
REV	DESCRIPTION	BY	CHK	APP	DATE

REVISION TABLE

HBPW
CONSULTING ENGINEERS

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RETFORD
NOTTINGHAMSHIRE
DN22 7UX
TEL (01777) 869896
www.hbpw.co.uk

CLIENT:

THE PORT OF

NIGG

CONTRACTOR:

FARRANS

A CRH COMPANY

HBPW PROJECT NUMBER:

SL06904

PROJECT:

NIGG PORT EAST QUAY

DRAWING:

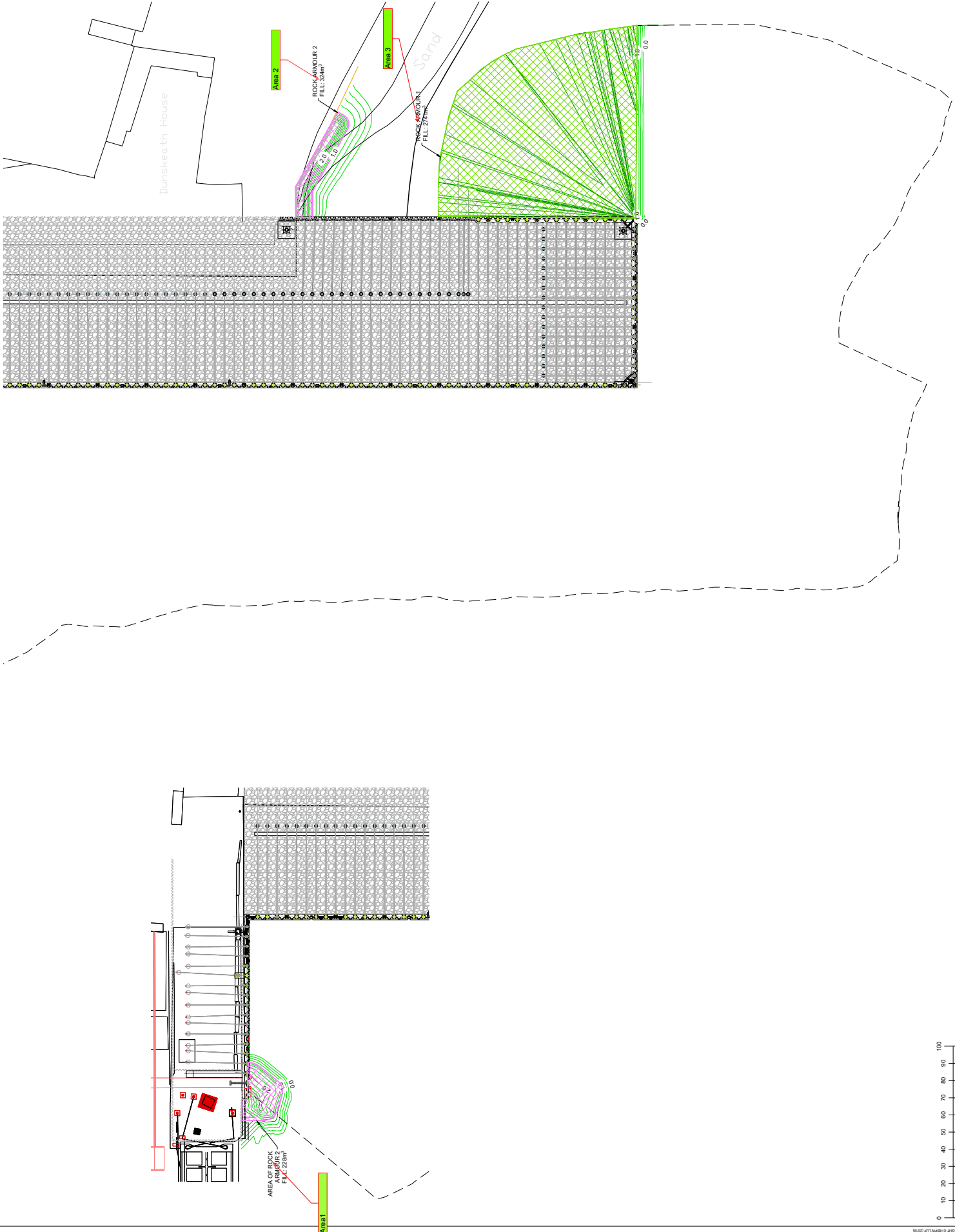
SITE BOUNDARY

PROJECT ENGINEER:	PM	DRAWN:	KB
CHECKED:	TF	APPROVED:	PM
DATE:	29.04.2021	SCALE:	1:2000
SIZE:	A1	SUITABILITY:	A
REVISION:	C01	DOCUMENT REFERENCE NUMBER:	Project-HBPW-00-ZZ-DR-C-0002

SAFETY, HEALTH AND ENVIRONMENTAL	
IN ADDITION TO THE HAZARDS OR RISKS NORMALLY ASSOCIATED WITH THE ACTIVITIES DESCRIBED ON THIS DRAWING, THE FOLLOWING RISKS OF WORK RELATED TO THIS COASTAL FILLING PROJECT HAVE BEEN IDENTIFIED. RESIDUAL RISKS SHOULD BE NOTED.	
CONSTRUCTION:	DEEP EXCAVATION, DEEP WATER
MAINTENANCE, CLEANING AND OPERATION :	
DECOMMISSIONING OR DEMOLITION :	

NOTES

- DO NOT SCALE OFF THIS DRAWING.
- SHOULD THERE BE ANY CONFLICT BETWEEN THE DETAILS INDICATED ON THIS DRAWING AND THE DETAILS INDICATED ON ANY OTHER DRAWING, THE DETAILS ON THIS DRAWING SHALL PREVAIL. THE ENGINEER SHOULD BE INFORMED PRIOR TO CONSTRUCTION ON SITE.
- ALL DRAWINGS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE THE WORKS AT ALL TIMES IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MODUR ACT 1974, THE MODUR REGULATIONS 1974 AND CDM REGULATIONS 2015.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.
- DESIGN OF THE TEMPORARY BUND AND ROCK ARMOUR FILLING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOT ACCEPT ANY LIABILITY FOR THESE WORKS.
- CUT AND FILL ANALYSIS.
- MAIN ARMOUR FILL 3144m³



REVISION TABLE				
NO.	DESCRIPTION	BY	CHK	APP
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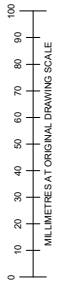
HBPW
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WWW.HBPW.CO.UK

CLIENT: GLOBAL ENERGY NIGG LTD

CONTINUATION

HBPW PROJECT NUMBER:
SL08904
PROJECT:

PROJECT:
STAGE F
CAPITAL DREDGE CUT AND FILL
ANALYSIS
DRAWN: DPS
PROJECT MANAGER: PM
CHECKED: IF
DATE: 17/01/22
SCALE: 1:500
SHEET: A1
TOTAL SHEETS: 54
PROJECT NO: P02
DOCUMENT REFERENCE NUMBER: SL08904-HBPW-00-ZZ-DR-C-0078



B ROCK ARMOUR SPECIFICATIONS

7 Rock Armour Specification

7.1 Extents

- Extents and slopes of rock armour as defined on design drawings
- Main Armour 1 Rock armour thickness shall be minimum 1000mm
- Main Armour 2 Rock armour thickness shall be minimum 1100mm

7.2 Material Description

- **Main Armour 1** - Designed in accordance with CIRIA C683 Rock Manual and BS EN 13383, is an LMB declared 15-80; extreme limits: 5-150. The rock armour is made of 4 layers of material, having a total thickness of, at least, 1.0m
- **Main Armour 2** - Designed in accordance with CIRIA C683 Rock Manual and BS EN 13383, is an HMA declared 260-910; extreme limits: 130-1440; effective mean mass: 450-600, with W15 = 380kg and W85 = 1000kg. The main armour is made of two layers of material, having a total thickness of, at least, 1.1m.

7.3 Material Prescriptions

- Rock material used for protections will be healthy, compact, hard, dense, of good quality and high resistance to atmospheric agents and disintegration by the action of sea water. It will be free of veins, fissures, weak planes, cracks due to blasting and other imperfections or defects that in the opinion of the Construction Management can contribute to its collapse or break during handling, placement or exposure to the weather. All edges shall have their rough faces of angular shape, and their minimum dimension shall not be less than one third (1/3) of their maximum dimension. Slabs, thin, flat or elongated slabs, as well as boulders, or parts of them, will be rejected.
- The density of the stone will be, at least, two with sixty-five (2.65) tons per cubic meter.
- For rock protections, the specifications below refer to a series of specified weights of rocks (rock sizes ELL, NLL, NUL and EUL in increasing size order) and the associated allowable range of "xx", the "cumulative percentage by weight lighter than" values, in accordance with the CIRIA/CUR/CETMEF (2007).
- The grading of the armour materials is shown in **Figure 1**. Next figure shows the limits of grading considered in this document.

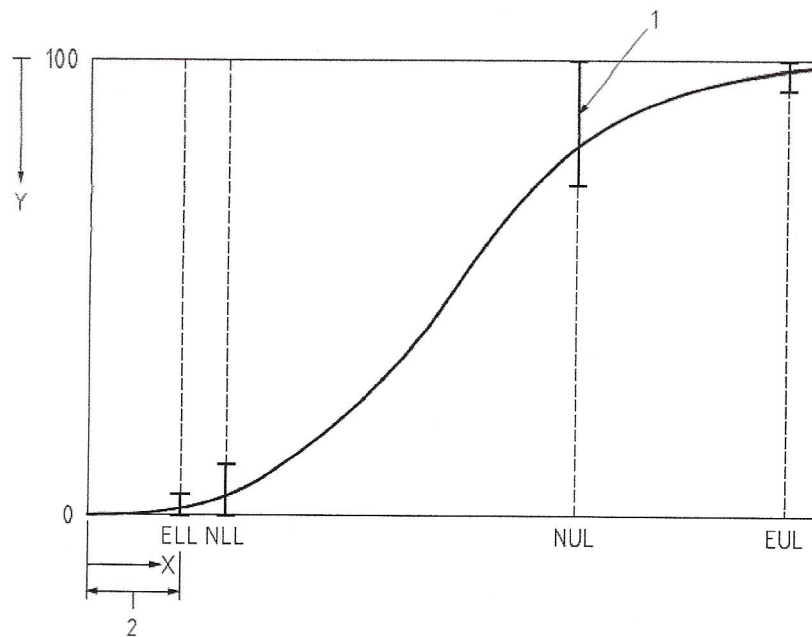


Figure 1 - Limits of gradings

- ELL: Extreme Lower Limit- the mass below which no more than 5 per cent passing by mass is permitted
- NLL: Nominal Lower Limit- the mass below which no more than 10 per cent passing by mass is permitted
- NUL: Nominal Upper Limit- the mass below which no less than 70 per cent passing by mass is permitted
- EUL: Extreme Upper Limit- the mass below which no less than 97 per cent passing by mass is permitted
- M_{emll} : lower level for mean effective mass
- M_{emul} : upper level for mean effective mass

Variable	Unit	Main Armour 1	Main Armour 2
Density	kg/m ³	2650	2650
EUL (97%-100%)	kg	150	1440
NUL (70%-100%)	kg	80	910
NLL (0%-10%)	kg	15	260
ELL (0%-5%)	kg	5	130
M _{emll}	kg	30	450
M _{emul}	kg	50	600
M ₈₅	kg	100	1190
M ₁₅	kg	20	290

Table 1 - Grading for Main Armour Layer 1 & 2

- According to EN 13383, the percentage of rocks with length to thickness ratio (LT=maximum length/minimum distance) greater than 3 will be lower than 20%.
- Specific tests to be provided by the supplier are defined in Section **Table 2**.

7.4 Testing

- The following table summarizes the material requirement, the standardized test and the minimum test frequency:

Property	Test standard	Requirement	Minimum test frequency
Grading	EN 13383-2:2002	Table 1 of this document	One set of tests per 10,000t production
Block integrity test (drop test)	CIRIA C683 (Section 3.8.5.2 and Table 3.12)	IM50 < 5% (Field test) Bm < 10%	One set of tests per 10,000t Production In addition, visual inspection of all heavy grading rocks ⁽¹⁾ .
Density	EN13383-2: 2002 (Clause 8) CIRIA C683 (Table 3.12 and Section 3.8.2.3)	Average apparent mass density $\geq 2650 \text{ kg/m}^3$	One set of tests per 5,000t production
Shape	EN 13383-2: 2002	Main armour layer: - $\leq 50\%$ of stones with $l/d^{(2)} > 2$ - $\leq 5\%$ of stones with $l/d > 3$	One set of tests per 10,000t production
Pieces of armour stone with less than 50% crushed or broken surfaces	EN 13383-1: 2015	RO < 5%	One set of tests per 10,000t production
Water absorption	EN 13383-2: 2002 (Clause 8) CIRIA C683 (Table 3.12 and Section 3.8.2.3)	Average water absorption $\leq 2.0\%$	One set of tests per 5,000t production
Weathering resistance (MgSO4 soundness)	EN 13383-2: 2002, Clause 7.5	MS < 10	One set of tests taken at the start and again mid-way through the planned production quantity ⁽³⁾
Compressive strength or Point load strength	EN 1926:1999 (Annex A) or ISRM (1985)	$>100\text{N/mm}^2$ or $\geq 4\text{MPa}$	One set of tests per 5,000t production
Micro-Deval test	EN 1097-1:2011	Loss of material < 20%	One set of tests per 5,000t production
Los Angeles test	EN 1097-2	Loss of material < 35%	6 piece series whose masses do not differ between more than 25%
Impact Resistance	BS 812: Part 112: 1990	Aggregate impact value shall be $<24\%$ for standard test fraction	One set of tests per 5,000t production
⁽¹⁾ Blocks shall be free from visually observable cracks, veins, fissures, shale layers, stylolite seams, laminations, foliation planes, cleavage planes, unit contacts or other such flaws which could lead to breakage during loading, unloading or placing ⁽²⁾ l =maximum length, d =minimum distance. Rock shall have high angularity and sharpness. Blocks showing clear signs of significant edge or corner wear or severe rounding shall not be accepted ⁽³⁾ Additional set of tests shall be taken if the density of rock as determined in density and/or water absorption test varies outside the specified limits stated herewith			

Table 2 – Summary of rock property requirements and frequency of testing for underlayer rocks and armour layer rocks

7.5 Placement and Tolerances

- Rocks for armour will be placed in the protection in two layers with random orientation.
- Material for armour will be placed as bulk material and shall comply with the following requirements:
 - Armour layers shall have a minimum thickness equivalent to two stone layers.
 - Heavy armour stone defined in EN 13383-I or with a NLL $\geq 300 \text{ kg}$ shall be individually placed to achieve a dense protection so that each armour stone is securely held in

place by its neighbours. Placing shall commence at the toe and proceed upwards towards the crest.

- Tipping of armour from vehicles, or bulldozing or dumping from hoppers or barges into final position, shall not be permitted.
 - Heavy armourstone above water shall be placed so that a minimum of three points of contact within the layer being placed is ensured.
 - Armourstone below water shall be placed according to Random Placement without control of orientation and should not be assumed to be any tighter than would be expected if the stones were placed out of view underwater by single cable release from a crane.
 - Unless otherwise stated, the surface of the armoured slope shall present an angular uneven face to the water to achieve the desired energy dissipation of waves. Pieces of armourstone smaller than the equivalent of the ELL value of the grading shall not be used to fill interstices, or to prop larger stones in order to achieve the required profile.
 - Armour stone should be placed in such a manner as to avoid the displacement of the underlying subgrade.
 - Any void below the finished profile level as shown in the drawings in excess of $0.75D_{n50}$ shall be filled with an appropriate stone/stones.
 - Rocks should not be broken or present cracks after completion of placing process. All broken or cracked rocks shall be removed.
- Vertical placing tolerances for armour material shall be in accordance with the following:

Depth of placing	Allowable deviation
Dry or Above low water	$\pm 0.3 D_{n50}$
Below low water placed using land based equipment	$\pm 0.5 D_{n50}$
Below low water placed using water borne equipment	$\pm 0.8 D_{n50}$

Table 3 – Vertical placing tolerances for armour

- Rock materials shall be placed to the levels, dimensions and slopes according to drawings. The surface profile of rock placed as armour, when measured using the techniques specified in CIRIA C683 (spherical probe), shall comply with vertical tolerances presented in **Table 3**.
- Notwithstanding the point tolerances above, the following shall also apply:
 - The tolerances on two consecutive mean actual profiles shall not be negative.
 - Notwithstanding any accumulation of positive tolerances on underlying layers, the thickness of the layer shall not be less than 80% of the nominal thickness when calculated using mean actual profiles. Where an accumulation of positive tolerances arises and is acceptable to the designer, the position of the design profiles will need to be adjusted to suit.

7.6 Re-use of temporary bund material

- Material recovered from the temporary bund shall comply fully with this specification. The grading characteristics shall be checked at an increased frequency of min. 1 sample per 1000t of reclaimed rock armour.