Saltfleet to Gibraltar Point Beach Nourishment 2025-27

Environment Agency

NEC4 ECC engineering and construction contract

SCOPE

Project / contract information

Project name	Saltfleet to Gibraltar Point Strategy (SGPS) – Beach Management
Project SOP reference	ENV0002657C
Contract reference	C22100
Date	9 August 2024
Version number	V3
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
November 2023	First issue	1
March 2024	Issued for Tender	2
August 2024	Issue for Contract	3

Documents included in Scope by reference

This Scope should be read in conjunction with the documents detailed in the table below current at the Contract Date.

In accordance with clause 17.1 either party can notify of any inconsistency or ambiguity in or between these documents which are part of the contract.

In the event of conflict, this Scope shall prevail.

The *works* are to be compliant with the following:

Document	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements – Standard	V 12	December 2021
LIT 65150	Minimum Technical Requirements – Environment and Sustainability	V 2	March 2023
LIT 17641	BIM Protocol Exchange Information Requirements	V3	December 2022
LIT 16559	SHEW CoP	V5	20/01/2023
LIT 12507	(SHE) handbook for managing capital projects	V2	23/03/2023
	BIM Protocol – Production and Delivery Table		
LIT 14284	Carbon Operating Instruction		
FHU 309	Carbon methodology	V 3.1	02/10/2023

Contents

S 100 Description of the *works*

General Description of the *works*

1. The drawings describing the *works* are included in **Appendix 3.**

2. The *works* consist of beach nourishment to targeted areas of the Lincolnshire coastline between Mablethorpe and Skegness. The *works* are required for the 2025, 2026, & 2027 beach nourishment campaigns. The beach nourishment works are to be programmed to start March-April 2025 (following the Easter Weekend) and dredging operations are to be completed prior to the last Friday of July in the applicable year. The total frontage length is 20km. The primary objective of the *works* is to enable the current standard of defence to be maintained at 0.5% annual exceedance probability (AEP) or a 1 in 200-year standard of protection.

3. The *work*s include:

- a total beach survey of the entire coastal frontage (Saltfleet to Gibraltar Point – 38km) will be undertaken in early February that will be used to confirm locations and quantities for the following campaign,
- the production and maintenance of a coastal model incorporating the output from *Client's* Computational Fluid Dynamics,
- the detailed pre nourishment in-surveys of the entire coastal frontage Mablethorpe to Skegness, including the Nourishment Areas,
- the acquisition of suitable nourishment material from licensed offshore site(s),
- the placing of the nourishment material on the beach at the targeted nourishment areas within the design profile, including recycling of existing beach material.
- the profiling of the nourishment material including transition areas to non-nourished areas, and
- detailed post nourishment out-surveys.
- The *Contractor* may be requested within the duration of this contract to undertake other construction activities (for example but not limited to structural investigations, rock work, revetment works and/or concrete works) required for coastal defence along this stretch of coastline, generally known as "Additional Works"

4. The *Contractor* provides the *works* in a manner that contributes positively to the *Client's* primary objective. The *Contractor* and the *Client* shall be committed to working together in a co-operative manner to achieve mutual benefit. The parties will promote a culture and methods which support co-operation.

5. The areas targeted for nourishment will be confirmed in the February of each campaign year prior to the *works* following analysis of the winter beach profiles. Nourishment target volumes are anticipated to comprise between 200,000m^3 and 500,000m^3. The target volume will be confirmed within two weeks of receiving the outputs from the *Contractor's* beach survey and will, in general, allow for approximately 40% more losses than those that have been identified from the analysis of the winter beach profiles.

6. The *Contractor* shall provide the total beach survey by the 14$^{th\ of}$ February each year.

7. The in-year volume will be determined from the accepted "In-survey" and will consist of the volume of beach material required to be placed to reach the design profile. Any beach material above the design profile already on the beach shall not be moved.

8. The *Contractor* will be able to recover costs for sand volumes placed on the beach within the agreed tolerances of the design profile. No quantity will be measured more than that required to achieve the in-year design profile including the agreed tolerances. Volumes measured on the beach shall be calculated as the difference between the accepted *Contractor's* pre-nourishment in-surveys and the design profile. The accepted *Contractor*'s post-nourishment out-surveys shall confirm the design profile has been achieved.

9. The *Contractor* will also keep records and issue to the *Project Manager* the dredger hopper volumes. All in-surveys and *Contractor* proposed nourishment volumes to be placed in each targeted Nourishment Area will be made available to the *Supervisor* for information and the *Project Manager* for acceptance.

10. The extent of the Site is shown on drawings:

ENV0001081C-CH2-ZZ-00-DR-C-1901-A5-C02
ENV0001081C-CH2-ZZ-00-DR-C-1902-A5-C02
ENV0001081C-CH2-ZZ-00-DR-C-1903-A5-C02
ENV0001081C-CH2-ZZ-00-DR-C-1904-A5-C02
ENV0001081C-CH2-ZZ-00-DR-C-1905-A5-C02

11. The *Contractor* will establish the extent of the in-year beach nourishment works and confirm the extent with the *Supervisor* before commencement of any construction works. The *Contractor* shall check the provision of any level reference points shown on the drawings for acceptance of the position and level by the *Supervisor* before use for setting out the *works*. The *Contractor* shall inform the *Project Manager* when all setting out reference points have been accepted.

12. All reporting must comply with the *Client's* requirements and standards as set out in the EIR.

13. Provide information for inputting and maintaining the production of the *Client's* Carbon Cost Tool, (refer to section S 215) throughout any construction. Including a fully costed and documented plan to move to zero carbon which will be reviewed annually.

14. Analysis of carbon usage to be reviewed and should lead to a reduction in Carbon where justified.

15. Provide information to the *Client* to allow them to update the Midlands Sustainability Plan (reference Chapter 3 of Annual Plan for Midlands Hub '2022-23' Vn1.0 and subsequent annual updates)

16. Meeting the *Client's* monthly project reporting timetable and supporting data entry into the *Client's* system.

S 102 Purpose of the *works* / Outcome required

Purpose

The Saltfleet to Gibraltar Point Coastal Strategy (Environment Agency, 2019) encompasses the beach frontage from Saltfleet to Gibraltar Point on the Lincolnshire coastline. The primary project objective is to reduce the risk to people and the developed and natural environment along the frontage from flooding (coastal, fluvial and surface water) by encouraging the provision of technically, environmentally and economically sound and sustainable flood management measures. Lower beach levels associated with high surge tide levels make the seawalls more susceptible to wave attack and resultant wave overtopping, which would lead to failure of the defences in an event of sufficient magnitude. Replenishing beach levels to required design profiles helps reduce the risk of flooding along the coastal frontage.

The Strategy's Ambition includes

- "Delivering a transformational solution, in partnership with others, for coastal management and defences on the Lincolnshire coast whilst working with nature to sustain the existing standards, enhancing public confidence and reduce environmental impacts"
- "Enhancing local resilience and reducing the vulnerability of the coastal communities, and the coastal economy, in Lincolnshire to climate change."
- The strategy objective for this contract is to hold the line, i.e. the Lincolnshire Coast and hinterland continue to be defended by the current management regime - beach nourishment and management of the hard defences.
- minimised carbon as a strategic objective

Outcome Required

1. Reduced risk of asset failure
2. Energy efficient working
3. Strategic access to sites is always still available
4. Makes a positive contribution to the achievement of local and national Biodiversity Action Plan BAP) targets.
5. Demonstrates the successful integration of environmental design and civil engineering.

S 200 General constraints on how the *Contractor* provides the *works*

S 201 General Constraints

1. Use of site

a. The boundaries of the Site are the extent of the areas shown on the Drawings. The landward limit of the *works* area extends to the seaward face of the seawall if present (as dimensioned on the Drawings) or the seaward side of any sand dune.

b. Prior to the commencement of operations, the *Project Manager* supplies the *Contractor* with the known names and addresses of relevant landowners and occupiers.

c. The *Client* issues statutory Notices of Entry for all private land within the site at least 7 days before the possession dates. Additional Working Areas required by the *Contractor* outside of the site are to be provided by the *Contractor*. The *Contractor* shall ensure that all permits and permission are sought for these additional Working Areas.

d. The *Contractor* notifies the *Project Manager* of any additional Working Areas that they have negotiated outside of the boundaries of the site before entering them.

e. The *Contractor* confines their construction operations to the Working Areas. In addition, the *Contractor*'s Day to day operations are confined to the Area of Occupation.

f. The *Contractor* shares all the site with Others, except the Area of Occupation.

g. The *Contractor* supplies, erects, maintains and removes at the end of the *works* the moveable warning signboards and the scheme signboard as shown in the drawings.

h. The *Contractor* proposes the location of the scheme sign board at the site office to the *Project Manager* and gains any necessary permissions, approvals and consents for its establishment at least one week prior to its planned installation date.

i. The *Contractor* does not erect any other signboards without the written consent of the *Project Manager*.

j. The public have a right of access to the beach with exception of the Area of Occupation. The *Contractor* is responsible for arranging safe diversions for pedestrians around the Area of Occupation, whilst maintaining existing access along the sea walls and crest of dunes.

2. Access to Site

a. The *Client* will issue a formal Notice of Entry with drawings of proposed access routes to Lincolnshire County Council and copies of these will be provided to the *Contractor*. Most of these access routes are used by the public and this varies from very little use to extremely

high usage and it is essential that adequate arrangements are in place to recognise and plan for extremely high usage during all stages of operations. If the *Contractor* requires any additional temporary traffic restriction the process is detailed at https://www.lincolnshire.gov.uk/traffic-management/apply-temporary-traffic-restriction Lincolnshire County Council require a minimum of 13 weeks from submission of a valid application to determination.

b. The *Contractor* shall arrange for all approvals with Lincolnshire County Council Highways to close the access road(s) (for example the adopted highway to Huttoft Car Terrace from the Coast Road) for mobilisation and demobilisation periods.

c. Access to the site is shown on the drawings (refer to Appendix 3). During beach nourishment the *Contractor*'s access to the beach will be limited to the vehicular access points as agreed with the *Client*. Vehicular access onto the flood defences and beach must be controlled and limited to the least number of vehicles needed to undertake the *works*. The *Contractor* shall limit the number of vehicles that need to be parked up upon the seawall. Arrangements must be made to park workforce vehicles in a safe place other than on the beach or seawall.

d. The *Contractor* shall provide for acceptance by the *Project Manager* a Construction Traffic Management Plan for all site deliveries. Details should include and not be limited to the following:

- show that they will adopt the principles to encompass all aspects of safety, fuel efficiency, vehicle emissions and improved operations.
- describe the proposed supply route to and from the site, showing details of links to the strategic road network (A and B roads).
- how the *Contractor*'s site, other *Contractor*s, delivery companies and visitors be made aware of the route (to and from the site) and of on-site restrictions, prior to undertaking the journey.
- where vehicles can access the site and turn to exit in a forward direction.
- Should delivery vehicles not be able to access the site where will they wait to load/unload?
- Provide a breakdown of the number, type, size and weight of vehicles accessing the site.
- What are the arrangements to ensure that the loading/collection area is clear of vehicles and materials before the next lorry arrives?
- how will the *Contractor* protect pedestrians, beach users from the construction works, particularly vulnerable users?

- The Construction Traffic Management Plan should be monitored and reviewed at least annually.

e. No other access is used without the *Project Manager's* written acceptance.

f. The *Contractor* does not enter or use the site for any purpose not connected with the *works*.

g. The *Contractor* takes care to avoid disturbance and damage to the dunes and scrub.

h. The *Contractor* shall use existing access ramps where possible.

i. The *Contractor* shall use the existing splash deck/promenade where possible.

j. If temporary access ramp(s) from the top of the seawall are required, the *Contractor* notifies the *Project Manager* at least 72 hours in advance, provides details of the construction, maintenance and removal of the proposed temporary access ramps and confirms to the *Project Manager* that arrangements have been accepted.

k. If temporary access route(s) between the nearest vehicular access point and the Area of Occupation are required the *Contractor* notifies the *Project Manager* at least 72 hours in advance, provides details of the construction, maintenance and removal of his proposed temporary access route(s) and subsequently confirms to the *Project Manager* what arrangements have been accepted.

l. Pedestrian and vehicular access (e.g. for fishing boats) shall be provided over pipelines and around other temporary works located outside the Area of Occupation. Details of the *Contractor's* proposals are submitted to the *Project Manager* for acceptance prior to work being undertaken.

m. Existing public access as shown on the drawings along the sea walls and crest of dunes are to be always maintained.

n. The *Contractor* secures the Area of Occupation so far as is reasonably practicable against access by the public before other work starts in the Area of Occupation. The *Contractor* shall inspect and maintain all site fencing and gates and promptly repair defects.

o. The *Contractor* shall keep the Area of Occupation to a length that allows them to undertake the *works* safely but must not be longer than 600m in length.

p. The *Contractor* should note that the public has the right to pursue watersports within the site and the *Contractor* is responsible for clearly warning swimmers, small-boat sailors, etc. that they may be entering areas of risk when approaching the Area of Occupation.

q. Copies of formal entry notices, details of agreements with landowners and/or powers of entry will be made available to the *Contractor* at commencement. The *Contractor* notifies relevant owners and

occupiers (including the Highway Authority) in writing, sending a copy to the *Project Manager*, 14 days in advance of their intention to start work.

r. The *Contractor* keeps records of the dates of their first entry onto and departure from all property and land of each owner and occupier (including public highways, footpaths and thoroughfares) together with the dates of the erection and removal of all temporary fencing.

3. Site tidiness and branding

a. The *Contractor* keeps the Area of Occupation, site offices, site yards and parking areas tidy and promptly removes rubbish, waste and surplus. Materials, Plant and Equipment are positioned, stored and stacked in a safe and orderly manner. The site outside the Area of Occupation, site offices and site yards are kept free of construction debris and suitable for use by the public. Materials contaminated by oil and spillages or otherwise polluted due to the *Contractor's* activities shall be immediately removed and disposed of according to the statutory regulations.

b. Overnight accommodation at the site offices and on the site is prohibited.

c. All Offices, lockups, storerooms, working areas, Plant and Equipment within the Area of Occupation or being used for the purposes of delivering the *works*, shall be Environment Agency branded and carry at least one visible Environment Agency name badge (supplied by the *Contractor*) that can be seen from the Public Areas.

d. Environment Agency branding shall be of equal size, number and in visible locations as the branding of the *Contractor*. All plant and equipment shall include at least one Environment Agency sticker and or logo. Branding shall provide a clear message to the public that the *Client* and the *Contractor* are working in partnership to reduce the flood risk. Should the *Contractor* fail to meet this requirement, then they will be asked to remove all their branding.

4. Noise, Vibration and Dust

a. Noise and vibration levels shall be limited to those noted under the Minimum Technical Requirements. Activity in the part of the Trusthorpe - Mablethorpe area, where residences are located close to the beach, is to be kept to the minimum practicable level to reduce noise during night-time hours (10pm to 8am).

b. The *Contractor* takes all reasonable measures to minimise the generation of noise and vibration resulting from their activities, including but not limited to:

- employs 'best practicable means' as defined in the Control of Pollution Act 1994 to minimise the noise and vibration resulting from their operations.

- complies with the recommendations and requirements of BS 5228 Code of Practice for Noise Control on Construction and Demolition Sites.
- all Equipment is fitted with effective exhaust silencers, maintained in good repair and in accordance with the manufacturer's instructions and operated as to minimise noise emissions.
- only 'sound reduced' compressors or other alternatives approved by the *Supervisor* are used and any parts fitted by the manufacturer for the purpose of noise reduction is maintained and operated to minimise noise.
- any pneumatic operated percussive tools are fitted with approved mufflers or silencers which are kept in good repair.
- any machinery which is intermittent in use is shut down in intervening periods of non-use or where this is impractical is throttled back to a minimum.
- stationary Equipment (e.g. pumps, compressors, generators, etc.) are situated as far as possible from residential property and acoustic screens are erected if required by the *Supervisor*. Other Equipment is screened if necessary.
- Equipment known to emit noise strongly in one direction is, where practical, orientated so that noise is directed away from noise sensitive areas; and
- as far as possible, construction operations are not so noisy as to be a danger to those on or about the *works* or to be a nuisance to the neighbourhood.

c. The Contractor takes all reasonable measures to control the generation of dust and mud resulting from their activities, including but not limited to:

- watering exposed surfaces using mobile bowsers equipped with sprinkler bars.
- limiting vehicle speeds to 5 mph on the Area of Occupation and on unsurfaced roads.
- covering dust creating materials being delivered to or removed from site on the truck.
- cleaning vehicles leaving site; and
- Immediately removing any debris deposited on the public highway.

5. Working hours

a. Working hours shall be as noted in the Minimum Technical Requirements, with the following exceptions:

- 24-hour working is permitted for nourishment activities, except in the part of the Trusthorpe - Mablethorpe area, see above Noise and Vibration.

6. Parking

a. Equipment parking and servicing areas and wheel washing facilities (if required) are to be in the site compound.

b. The *Contractor* shall provide adjacent to the *Project Manager's* accommodation hardstanding for car parking sufficient for at least three cars, for the sole use of the *Project Manager*, *Supervisor* and their staff.

c. The *Contractor* shall provide and maintain four electric charging points for the *Client* and their staff.

7. Use of explosives

a. Explosives are not to be used on the site.

8. Storage of fuel and chemicals

a. All materials shall be carefully and properly stored in accordance with the suppliers' or manufacturers' instructions and directions.

b. Any materials that are found to be damaged, or that have suffered deterioration for any reasons whatsoever, shall not be incorporated in the *works*, shall be removed from the site forthwith and shall be replaced with materials that comply with the Scope.

c. The *Contractor* shall not make use of public highways, thoroughfares or footpaths for depositing and storing Plant and Materials but shall make provision for the proper storage and protection of all Plant and Materials on the site at locations accepted by the *Project Manager*. All such provisions shall be removed at Completion and any disturbance made good.

d. The *Contractor* shall maintain a detailed record of all materials received on the site and in their stores or storage and Working Areas in the vicinity of the site and shall make such records available to the *Project Manager* and *Supervisor* at such times as the latter may require.

9. Pollution, ecological and environmental impacts

a. The *Contractor* complies in full to the Environmental Action Plan (EAP). Where the EAP refers to associated documents (for example method statements, marine licence, consents and plans) the *Contractor* complies also with the measures described within these documents. The EAP shall be monitored on site for compliance by the *Supervisor*.

10. Sustainability and Carbon

a. The *Contractor* shall demonstrate sustainability leadership through fully considering and contributing to achieving the *Client's* environment and sustainability aspirations. These are outlined in the Environment Agency's e: Mission 2030 Strategy incorporating the UN Sustainability Goals (document included Interactive_emission); The Environment Plan 2023; and the Environment Act 1995 and are in line with the principles of sustainability as described by the United Nation's Sustainable Development Goals.

b. The *Contractor* shall take early action to reduce carbon emissions where the reduction opportunity is greatest by following the Carbon Reduction Hierarchy.

c. The *Contractor* shall complete a BREEAM infrastructure for Term Contract assessment (refer to S 2004).

11. Archaeological requirements

a. The *Client* will organise a briefing for the *Contractor*'s staff to explain the archaeology of the site and necessary precautions and actions to be followed.

b. The *Contractor* deals with the following items of known value or of historical or other interest, as follows:

- The *Contractor* shall immediately inform the *Project Manager* if any items thought to be of archaeological importance are discovered. The *Contractor* shall refer to the following documents, which are available from the *Client*, for archaeological information:
- Saltfleet to Gibraltar Point Strategy StAR Appendix N – Environmental Reports ENVIMAN002226-CH2-DZ-L00-TN-Z_1014-S3-P01.00-D001-EA-LOD0-SGPS_StAR_Appendix_N_Environmental_Reports
- Marine Application Environmental Statements Volume 1 and 2 ENV0002657C-JAC-00-500-RP-EN-001 and ENV0002657C-JAC-00-500RP-EN-017 and Appendices
- Refer also to the Environmental Action Plan.

c. The *Contractor* has title to the materials from excavation and demolition. All deleterious material, resulting from the *works*, are disposed of in accordance with the statutory requirements. Before disposing of any material, the *Contractor* submits to the *Supervisor* details of the proposed disposal area and the type of haul plant to be used together with the route to be adopted. The haul route is always kept clean.

12. Interfaces between the *works* and existing premises and users

a. Survey of highways, property and land

- Shortly before first entry of all campaigns, the *Contractor* undertakes 'Pre-starting condition surveys' of all highways, property and land as agreed with the *Project Manager* (including trees, boundaries, crops and any other features which may be affected by the *works*) within the *boundaries of the site* and of the access route(s) and ramp(s) to the Nourishment Area(s) outside of the site boundaries.
- The pre-starting condition surveys shall consist of digital photographs with an inventory. Copies of the survey shall be made and provided to the following:
  - *Client* (electronic format)
  - *Supervisor* (electronic format and hard copy)
  - *Project Manager* (electronic format)
  - Landowners whose land is used to access the site or whose land, forms part of the site (hard copy)
  - Occupiers whose land is used to access the site or whose land, forms part of the site (hard copy)
- The *Contractor* undertakes similar 'post-completion condition surveys' when the work is complete and on dates agreed with the *Supervisor*. Copies of the 'post-completion condition surveys' are distributed in the same format and to the same recipients as the pre-starting condition surveys.

b. The *Contractor* undertakes the condition surveys in conjunction with the *Supervisor* and accompanied by any others invited (and notified in advance) by the *Contractor*, *Project Manager* or *Supervisor*.

c. The *Contractor* gives at least 5 working days' notice to the *Project Manager* and *Supervisor* prior to any condition survey.

13. Site fencing

a. The *Contractor* provides a set of keys for all site entrance locks to the *Project Manager* and *Supervisor* and always allows the Client's Operations team emergency access.

b. The *Contractor* provides access in temporary site fencing and gates as necessary for the use of the occupiers of adjacent land.

14. Bill posting and advertising

a. The *Contractor* does not undertake or allow bill posting or advertising of any kind without the written consent of the *Project Manager*. Planning consent, if required, is obtained by the *Contractor*.

15. Third party land interests

a. Subject to unavoidable disturbance caused by Providing the Works, the *Contractor* does not unreasonably interfere with land rights which may

be enjoyed on or near the site and causes the least possible interference with existing amenities whether natural or man-made.

16. Third party complaints and claims

a. The *Contractor* notifies the *Project Manager* immediately following any damage or injury arising out of the *Contractor* Providing the Works.

b. The *Contractor* and *Project Manager* notify each other without delay of all complaints, claims or warnings of intended claims which they may receive.

c. The *Contractor* deals promptly with any complaints, claims, damage or injury by or to owners or occupiers.

d. The *Contractor* shall immediately inform the *Client* if any complaint, claims, damage or injury to owners or occupiers made by those owners or occupiers under the Water Resources Act 1991 and pursuant to clause Z27 (Fisheries Liaison Officer) allows the *Client's* Estates Department to agree the claim. If the compensation claim is because of the *Contractor's* (or their Subcontractor or supplier) actions, the full cost of the claim shall be reimbursed to the *Client* by the *Contractor*.

17. Interference with any access to property, apparatus or service

a. Before interfering with any access to property, apparatus or service, the *Contractor* identifies its access requirements. The *Contractor* notifies the *Project Manager* and the relevant owners and occupiers in writing 14 days in advance of any such interference and confirms to the *Project Manager* if alternative arrangements have been agreed.

b. The *Contractor* considers the access and service requirements of those with protected characteristics.

18. Accommodation for the contract

a. The *Contractor*, *Project Manager* and *Supervisor* shall share the site accommodation, offices and facilities, which will be secure, dry and energy efficient as well as painted in accordance to the *Client's* site Branding Guide. The *Contractor* provides accommodation and services described in the Minimum Technical Requirements. The accommodation is to be sited to the acceptance of the *Project Manager*.

b. The accommodation is provided ready for use from 2 weeks prior to the start of the *works*, unless otherwise agreed with the *Project Manager*. The *Contractor* maintains agreements relating to the accommodation and services until Completion.

Note: The existing contract compound / accommodation at Anderby Creek has been used as offices and compound premises under the previous contract. The compound area is currently occupied by others until 31 December 2024.

c. Should the current site compound area be used, then the *Contractor* will be required to deal with all landowner discussions and approvals and maintain the area until 31 December 2027.

d. In relation to the solar panels at the current site compound, the units will be used to generate project income and offset costs of running the offices/sites during the period of occupation. The *Contractor* shall be responsible for the solar panel's maintenance and repair.

e. Outside the periods of occupation, the units will be used to generate electricity that will be sold to the national grid. All income during this time will benefit the *Client*.

19. *Contractor's* compounds, storage areas and site roads

a. The *Contractor* identifies suitable areas within the Working Area for use for offloading/ loading equipment and materials and as compounds, storage areas and site roads and proposes these for acceptance by the *Project Manager*.

b. Except as may be otherwise required by the contract, the *Contractor* designs, constructs, maintains and afterwards removes and reinstates any temporary works including temporary accommodation, services, compounds, storage areas, site roads and accesses required for the *works*. The *Contractor* submits details of their design and reinstatement proposals to the *Project Manager* for acceptance.

c. Planning consent for offices, cabins, other temporary accommodation, and signboards at the site offices or temporary works required by the *Contractor* or required for the *Project Manager* and *Supervisor* is, if necessary, obtained by the *Contractor*.

d. Reinstatement work includes the removal of all materials used in the construction of roads and restoring the area to at least its original degree of safety, stability, drainage and appearance unless specific approval to provide otherwise is given by the *Project Manager*.

20. Transport

a. The *Contractor* provides for the sole use of the *Project Manager*, *Supervisor* and their staff one plain-coloured hybrid car capable of carrying 4 No. people and suitable for use on and around the site. A suitable charging point must be provided. If during the contract the car's mileage exceeds 80,000 miles or becomes more than 5 years old, the *Contractor* replaces it with another car meeting or exceeding this specification.

b. The *Contractor* licences, insures, services, runs (including fuel and lubricants), maintains, cleans and repairs the vehicle(s) and provides a replacement for any vehicle expected to be unavailable for a period of more than 24 hours.

c. The *Contractor* comprehensively 'insures' the vehicles for driving at any time by any licensed driver, together with any authorised

passengers and the carriage of goods and samples, named in advance by the *Project Manager*.

d. The vehicle(s) are returned to the *Contractor* 2 weeks after Completion of each section of the *works*.

21. Datums and reference points

a. Tide Information

Tide levels are those given by the Admiralty Tide Tables for Skegness. Tide levels at the site will vary. Tide levels according to Ordnance Datum (Newlyn) (mODN) and Chart Datum (mCD) are as follows:

MHWS	+3.15 mODN	+6.9 mCD
MHWN	+1.55 mODN	+5.3 mCD
MLWS	-1.25 mODN	+2.5 mCD
MLWS	-2.85 mODN	+0.9 mCD

The Saltfleet to Gibraltar Point frontage has been split into 3 Zones as per below. This contract concentrates on beach nourishment to Zone B.

Zone A is the stretch of coastline from Saltfleet to Theddlethorpe (Grid Ref: TF 45406 93904 to TF 49717 86980), taken as a frontage length of 8km.

Location	**X(Easting)**	**Y(Northing)**	**Nearest Post Code**
Saltfleet	345406	393904	LN11 7RJ
Theddlethorpe	549717	386980	LN12 1QQ

Zone B is the stretch of coastline from Theddlethorpe to Skegness (Grid Ref: TF 49717 86980 to TF 56602 61001), taken as a frontage length of 25km.

Location	**X(Easting)**	**Y(Northing)**	**Nearest Post Code**
Theddlethorpe	549717	386980	LN12 1QQ
Skegness	556602	361001	PE25 3AZ

Zone C is the stretch of coastline from Skegness to Gibraltar Point (Grid Ref: TF 56602 61001 to TF 55744 55009), taken as a frontage length of 5km.

Location	X(Easting)	Y(Northing)	Nearest Post Code
Skegness	556602	361001	PE25 3AZ
Gibraltar Point	555744	355009	PE24 4BA

The works datum is Ordnance Survey Datum (Newlyn). The primary reference points for setting out the *works* are provided by the *Client's* system of beach monitoring profiles. Details of profile markers within the site frontage are set out below. More profiles are available should the *Contractor* need them to undertake the *works*.

Marker Reference	Easting	Northing	Height (mODN)
P10 (L038) *	550931.680	385142.796	6.386
P12 (MB078)	551168.605	384692.295	7.016
P14 (L039) *	551378.588	384248.129	6.566
P18 (L040)	551815.840	383295.461	5.945
P20 (MB116)	551982.457	382831.036	6.208
P22 (L041) *	552152.585	382343.898	6.625
P24 (MB135)	552342.488	381904.520	5.563
P26 (L042) *	552514.105	381413.832	6.683
P28 (MB153)	552733.167	380970.307	6.587
P30 (L043) *	552998.528	380502.916	6.534
P32 (MB171)	553248.756	380130.958	7.354
P34 (L044) *	553559.144	379673.551	7.366
P36 (MB193)	553881.897	379120.744	7.347
P38 (L045) *	554182.139	378577.552	6.336
P40 (MB213)	554404.939	378161.160	6.852
P42 (L046) *	554615.826	377674.155	8.313
P44 (MB231)	554778.618	377295.310	7.439
P46 (L047)	554980.932	376750.478	8.911
P48 (MB249)	555112.164	376352.140	7.219
P50 (L048)	555321.565	375803.046	NaN (nearest 5.609)
P52 (MB270)	555532.390	375271.531	8.338
P54 (L049)	555736.860	374745.108	7.536
P56 (MB289)	555923.947	374288.726	7.468
P58 (L050)	556094.750	373748.400	NaN (nearest 7.353)
P59 (MB304) *	556164.454	373509.441	6.117
P60 (MB309)	556243.566	373286.164	5.86
P62 (L051) *	556210.190	372741.663	6.755
P64 (MB334)	556274.128	372148.374	6.699
P66 (L052) *	556369.136	371734.644	6.81
P68 (MB351)	556543.512	371264.799	7.474
P70 (L053) *	556722.986	370811.578	7.183
P72 (MB371)	556907.703	370295.947	6.711
P74 (L054) *	557058.788	369792.808	6.601

P76 (MB390)	557171.993	369305.137	6.607
P78 (L055) *	557360.074	368835.078	6.623
P80 (MB406)	557399.786	368516.673	6.526
P82 (L056) *	557465.074	368127.352	6.542
P84 (MB426)	557402.792	367510.468	6.529
P86 (L057) *	557372.368	366889.901	6.882
P88 (MB448)	557320.166	366403.170	6.724
P90 (L058) *	557284.330	365888.034	6.683

(NaN – not a number)

b. From the primary reference points, the *Contractor* establishes appropriate secondary survey stations at suitable locations close to the *works*. The *Contractor* proposes the location of the secondary survey stations for acceptance by the *Supervisor* and *Project Manager*.

c. The *Contractor* periodically checks the secondary survey stations against the primary reference points and notifies the *Supervisor* immediately of any discrepancies.

d. In advance of any survey station being demolished during the *works*, the *Contractor* transfers it to a new location. Similarly, any survey station which is damaged or dislodged during the contract is to be re-installed by the *Contractor*. The *Contractor* proposes the surveyed values of all transferred and re-installed survey stations for checking and acceptance by the *Supervisor* before making use of them.

e. The *Contractor* checks that the existing ground levels and levels and locations of structures where they are relevant to the *works* as indicated in the contract (including the drawings) are confirmed as being correct. If the *Contractor* considers there is an inconsistency with the information given, they will refer it to the *Project Manager* for resolution before work commences.

S 202 Constraints imposed to meet the requirements of others

1. Nourishment in the vicinity of outfalls

a. Outfalls shall not be trafficked over, unless the *Contractor* has assessed the impact and demonstrated to the *Project Manager* that it is safe to do so. Prior to commencement, the *Contractor* is to provide to the *Project Manager*, for acceptance, an assessment of the anticipated loading on the outfall structures by the Equipment to be used, concluding whether it is safe to traffic over and what safeguards are to be put in place. The *Contractor* is to ensure all safeguards are in place throughout the period when trafficking over the outfalls. Any subsequent

change to the Equipment to be used must undergo a similar assessment before accessing over the outfalls.

b. Any damage to the outfalls and/or associated structures because of the *Contractor*'s actions, remains a *Contractor* held risk.

c. Nourishment shall be transitioned off in accordance with drawing information and instruction from the *Project Manager* Ordnance Survey National Grid Reference for the landward ends of outfalls are:

Ingoldmells Outfall	TF 5748 6869
Chapel Outfall	TF 5620 7294
Anderby Outfall	TF 5525 7595
Boygrift Outfall	TF 5338 7996
Trusthorpe Outfall	TF 5159 8412
Mablethorpe Outfall	TF 5084 8539

2. Licences and Consents

a. The *works* are undertaken under the *Client's* powers of permitted development and have been approved by Natural England. The *Client* has obtained the following licences and consents for the *works*:

- Marine Management Organisation (MMO) licence (not including any dredging works) – MMO Letter, issued 27th May 2022, and Marine Licence (Licence Number L/2022/00197/1) – Licence is valid to 30th April 2032.
- Crown Estates notification – to be provided prior to the *works*.

S 203 Confidentiality

1. The *Contractor* does not disclose information in connection with the *works* except when necessary to carry out their duties or obligations under the contract

2. The *Contractor* may publicise the *works* only with the *Client*'s written permission.

S 204 Security and protection on the site

1. The *Contractor* shall keep the public fully informed of the *works* and of the dangers present on site.

2. The *Contractor* considers the security of neighbouring properties and does not leave unattended scaffolding, ladders or any condition, which

provide or assist access to neighbouring properties. Where permanent security fencing to neighbouring properties is removed as part of the *works*, it is to be replaced by suitable temporary fencing when the site is unoccupied.

3. The *Contractor* is responsible for the security of the Working Areas, Area of Occupation, site offices, site yard and any other facilities.

S205 Security and identification of people

Not used

S 206 Protection of existing structures and services

1. The *Contractor* shall be responsible for maintaining the current standard of protection of the flood defences during execution of the *works*.
2. Where an existing flood defence must be removed, lowered or weakened as part of the *works*, the *Contractor* provides a temporary flood defence ensuring that the existing standard of flood defence is maintained at all times. The *Contractor* gains the *Project Manager's* acceptance and the Environment Agency's statutory consent for the temporary flood defence. This will be achieved through completion of the Environmental Permitting (England and Wales) Regulations 2016, updated 2018 and 2019.
3. Except where required as part of the *works*, the *Contractor* ensures that the structural integrity and performance of existing flood defences are not damaged by their activities during the *works*.
4. The *Contractor* shall take reasonable measures to avoid damage to existing roads, property and other works caused by their operations. The *Contractor* is responsible for any damage to existing roads, properties and other works caused by its operations.
5. Information concerning the believed location of apparatus of the Statutory Undertakers, Highway Authority or others is included, where available, in the Site Information.
6. The *Contractor* liaises with all relevant Statutory Undertakers, the Highway Authority, and other owners of apparatus before commencing any excavations and satisfies themselves as to the exact position of existing apparatus which may affect or be affected by the construction of the *works*. The *Contractor* complies with all specific requirements from these third parties.
7. Where any portion of the *works* is close to, across or under any existing apparatus of Statutory Undertakers, the Highways Authority or other parties, the *Contractor* shall obtain all necessary licences and consents and temporarily supports and works around, under or adjacent to all apparatus in a manner designed to avoid damage, leakage or danger and to ensure uninterrupted operation.

8. Should any leakages or damage to existing services, highways or apparatus be discovered, the *Contractor* at once notifies the Statutory Undertaker, Highways Authority or owner concerned, as appropriate, and the *Project Manager*. The *Contractor* affords every facility for the repair or replacement of the apparatus affected.

9. Before mechanically excavating close to services, the *Contractor* undertakes full preliminary investigations in accordance with PAS128:2014 – Specification for underground utility detection, verification, and location – parts A to D and by means of electromagnetic and other locating devices and hand-dug trial holes to locate the existing services. The *Contractor* notifies the *Project Manager* of the results of these investigations without delay.

10. The *Contractor* notifies the *Project Manager* in advance of any diversion or removal of apparatus, which the *Contractor* requires for their own convenience or because of their proposed methods of working. The *Contractor* arranges (including obtaining any necessary permissions, notices, licences, or consents) and undertakes any such additional diversion or removal of apparatus but complies with any requirements of the *Project Manager*.

11. The *Contractor* provides photographs, and a record drawing of services and apparatus encountered, highlights the differences from the information provided by the Statutory Undertaker and Highway Authority and issues this to the *Project Manager*.

S 207 Protection of the *works*

1. The *Contractor* shall take all reasonable care to protect the *works* from damage, including weather and tidal related conditions

S 208 Cleanliness of the roads

1. Refer to the Minimum Technical Requirements

S 209 Traffic management

Traffic Safety and Management

1. The *Contractor* is responsible for traffic safety and management, including obtaining traffic signals consents and nominates one of their site staff to be responsible for all related activities.

2. Before any work in or affecting the use of any highway or road is commenced, the *Contractor*'s proposed method of working, including any special traffic requirements, is agreed with, and confirmed in writing to the *Project Manager* and all relevant authorities.

3. Throughout the duration of the contract, the *Contractor* co-operates with the relevant authorities concerning works in, or access to, the highway. The *Contractor* informs the *Project Manager* of any requirements of, or arrangements made with the relevant authorities.

4. The *Contractor* prevents vehicles entering and leaving the site depositing mud or other debris on the surface of adjacent roads, pavements or footpaths and removes promptly any materials deposited.

5. The *Contractor* provides the *Project Manager* with an up-to-date list of 'Supervisors' and 'Operatives' who have achieved accreditation in the relevant activities in the New Roads and Street Works Act 1991 or The Street Works (Northern Ireland) Order 1995.

Permanent closures and diversions

1. No permanent highway, road or footpath closures or diversions are required for the *works*.

2. The *Contractor* arranges all the necessary permissions, notices and licences for any permanent closures or diversions that become necessary.

Temporary closures and diversions

1. The *Contractor* arranges all the necessary permissions, notices and licences for these and any other temporary closures or diversions that become necessary. The *Contractor* will notify the requirement to the *Client* 13 weeks in advance of requirement.

2. The *Contractor* arranges all the necessary permissions, notices and licences for these and any other temporary closures or diversions that become necessary. Contacts are Lincolnshire County Council, Highways & Planning Directorate, 4th Floor City Hall, Lincoln, LN1 1DN.

3. The *Contractor* arranges all necessary temporary traffic control measures and always maintains them in good working order and condition, re-positioning, covering or removing them as necessitated by the progress of the *works*.

S 210 Condition survey

1. The *Contractor* shall undertake a condition survey in accordance with the Minimum Technical Requirements. As stated in S201. The survey record should be stored in the BIM archive.

S 211 Consideration of others

1. Where elevated levels of vibration are expected the *Client* shall undertake pre-condition surveys of the existing buildings that might be affected. The *Client* shall give the *Contractor* 7 days' notice of such surveys, and the *Contractor* shall attend the surveys and sign the survey reports in acknowledgement of their accuracy. In the absence of such attendance and signature, the *Contractor* shall be deemed to have attended the surveys and acknowledged the accuracy of the survey reports.

2. Noise and vibration monitoring shall be undertaken in accordance with the Minimum Technical Requirements except that the *Contractor* shall propose a specialist consultant for both noise and vibration monitoring

for acceptance by the *Project Manager*. Should any of the vibration or noise levels exceed those noted in the Minimum Technical Requirements the *Contractor* shall stop works, identify the cause, and agree remedial actions to comply with the limits noted with the *Supervisor*.

S 212 Control of site personnel

1. The *Contractor* shall ensure that all site personnel are respectful of the public

S 213 Site cleanliness

1. The *site* shall be kept clean and tidy to avoid any wind-blown rubbish.

S 214 Waste materials

1. Refer to the Minimum Technical Requirements

S 215 Deleterious and hazardous materials

Not used

S 216 Carbon

Carbon terminology

Carbon Terminology. For clarity the below terms are definitions for required deliverables and related data and should be used in communications about carbon.

Carbon Reporting

a) Reporting on **capital carbon forecasts and budgets** via FastDraft is a monthly requirement of a service for business case project stages. The reported data will be project carbon figures from the latest ERIC calculations that consultants maintain as 'work in progress' versions to support their appraisal and design deliverables.

b) Reporting on **capital carbon actuals to date** and a latest **capital carbon forecast** for construction completion via FastDraft is a monthly requirement of a service for construction stage. The reported data will be based on evidence of embodied carbon in products supplied and construction services carried out up to the reported date and aligned to reported expenditure at the same time. See ref S216

Additional terminology for carbon reporting:

Consultant Carbon Forecast Form Carbon forecast form in FastDraft to be completed monthly as per contract Scope requirement – reporting is for Project (not contract).

FastDraft Carbon Forecast menu option in FastDraft can't be changed but add FastDraft to name in communications to distinguish from capital carbon forecast

1. The *Contractor* must aim as a strategic objective to minimise carbon.
2. The *Client* carbon assessment tools for calculating Capital Carbon Forecasts is ERIC Carbon Modelling Tool (CMT) or ERIC Carbon Calculator (CC).

Carbon responsibilities of all Parties

1. Aim to minimise carbon emissions by:

(1) State minimised carbon as one of the strategic objectives of the contract under S 101

(2) Looking at how to reduce Capital Carbon Actuals (compared to the Capital Carbon Forecast) and how to reduce Whole Life Carbon of the asset

(3) Work collaboratively, including with sub-contractors, on lower carbon products and services that meet the project scope and deliverables

(4) Exploit opportunities for further reductions Carbon during construction.

Carbon Responsibilities of the *Client*

1. Has a corporate and publicly declared target to reach net zero by 2030.

2. It is at the *Client'* discretion to decide if Scope change is significant and merits a re-assessment of the ECC Carbon Target.

3. *Project Manager* and *Client* will monitor and be informed of decarbonisation progress by comparing Fast Draft Carbon Forecast to the Verified Capital Carbon Forecast

Carbon responsibilities of the *Contractor*

Submit monthly the FastDraft Carbon Forecast (*Contractor* Carbon Forecast Form). Reporting

(1) Capital Carbon Forecast

(2) Capital Carbon Actuals to date

S 217 Reporting Requirements

Monthly Reporting

1. For the duration of the contract FastDraft Carbon Forecast (*Contractor* Carbon Forecast Form) is to be submitted monthly. Reporting is a Contract level on

(1)

(2) Capital Carbon Forecast

(3) Capital Carbon Actuals to date

2. For the duration of the contract, progress is to be reported monthly via [redacted]

S 300 *Contractor's* design

S 301 Design responsibility

1. There are no design related tasks assigned to the *Contractor* within this Scope of beach nourishment works. Beach Profile Designs will be made available to the *Contractor*.

S 302 Design submission procedure

1. Not applicable

S 303 Design approval from Others

1. Not applicable

S 304 *Client*'s requirements

Interfaces with the *Client's* or others

1. The *Contractor* provides information to the *Client* and *Project Manager* on the availability of dredgers and other Equipment and Materials for use on these *works* and co-operates with the *Client* in defining the timing of the *works*.

Operations & Maintenance Manual (incorporating the Health and Safety File)

1. Details of the requirements of the Health and Safety File, which incorporates any Operation and Maintenance are detailed in the Pre-Construction Information in S 1100. The *Contractor* shall provide the information detailed in the Pre-Construction Information to the *Project Manager* within 4 weeks of completion of each nourishment area.

Record drawings

1. Record drawings are prepared showing the 'as built' works by the *Contractor* for inclusion in the Health and Safety File. Furthermore, all bathymetric and survey or modelling information should be issued to the Client within the H&S file.
2. The *Contractor* submits the full set of record drawings for each Section of the *works* to the *Project Manager* for acceptance within 4 weeks after physical completion of that Section.

S 305 Design co-ordination

1. The *Contractor* will work with the Client to ensure all *Contractor* proposed beach profile design changes can be developed, reviewed, adopted, and implemented without any negative impact on the programme.

S 306 Requirements of Others

1. Refer to S 900 for requirements of Others

S 307 Copyright / licence

1. Not applicable

S 308 Access to information following completion

1. Not applicable

S 309 Site investigation

1. Not applicable

S 400 Completion

S 401 Completion definition

1. The following are an absolute requirement for Completion to be certified, without these items the *Client* is unable to use the *works*:

(1) Health and Safety File	Provide all information to the Principal Designer for them to compile the Health and Safety file.,
(2) Operating and Maintenance Manuals	one hard copy and one electronic version.
(3) As Built Drawings	one hard copy and one electronic version
(4) As Built Carbon Appendix	Delivery of the Final Carbon Appendix, this is to be saved into Asite.
(5) Carbon Assessment	Delivery of the Carbon Assessment, this is to be saved into Asite
(6) Verification	of Carbon Assessment and Carbon Appendix by Carbon Specialist
(7) BIM Data	Transferred to the *Client* databases of BIM data
(8) Clause 11.2(2)	Work to be done by the Completion Date: all *works* required by this Contract**.**

S 402 Sectional Completion definition

Work to be done for each Sectional Completion

Sectional Completion for this Contract is the same as Completion Requirements above.

S 403 Training

1. Where training courses are held on site as part of the *Contractor*'s general duties, the courses should be offered to the wider project team.

S 404 Final clean

1. Not used

S 405 Security

2. Not used

S 406 Correcting Defects

1. Access for the correction of any Defect after Completion shall be arranged via the *Project Manager* and *Client*.

S 407 Pre-Completion arrangements

1. A joint walk through of the *works* may be arranged with the *Contractor*, *Project Manager*, *Supervisor*, *Client* and Environment Agency's

Operations personnel to agree any defects that require attention prior to Completion Certificate being issued.

S 408 Take over

1. At the *Client's* discretion the *Client* may take over part/parts of the *works* prior to Completion, The *Contractor* may offer up nourishment areas for takeover to the *Supervisor* for acceptance from the *Client* or otherwise. The Pre-Completion arrangements detailed above shall be followed before any *works* are taken over by the *Client*.

2. Use, in part or as a whole, of the *works* as a flood defence prior to Completion shall not constitute Take over of the *works* by the *Client*.

S 500 Programme

S 501 Programme requirements

1. The programme complies with the requirements of Clause 31.2 and includes alignment and submission of the BIM Execution Plan (BEP) and Master Information Delivery Plan (MIDP).

2. The *Contractor* includes the following information as separate activities in the programme in addition to that stated in the ECC clause 31.2 and includes alignment and submission of the BEP and Master Information Delivery Plan (MIDP):

1) Opening the compound
2) Total Beach Survey and issue date
3) Mobilisation.
4) Nourishment operations
5) Demobilisation.

Each submitted programme shall include the Critical Path and be fully resourced.

S 502 Programme arrangement

1. Not used

S 503 Methodology statement

1. Method statements submitted with a programme for acceptance are to include but are not limited to the following matters:

1) Health & safety measures.
2) Extent of working areas and protective barriers.
3) Access to working areas, including confined spaces.
4) The implementation of relevant statutory regulations.
5) The design and construction of temporary works and de-watering measures.
6) Compliance with the Environmental Action Plan.
7) How the environmental impact of the activities is to be minimised.
8) Equipment requirements, siting and mode of operation.
9) Labour requirements and supervision.
10) Delivery and storage of materials.
11) Provision of access to third parties.
12) Details of the construction sequence.

13) Details of working methods.

14) Detailed programme with key dates.

15) Result of any consultation with third parties.

16) Contingency plans in the event of flooding, other difficulties or emergencies; and

17) Risk and COSHH assessments.

S 504 Work of the *Client* and Others

1. The *Contractor* shall allow continued access for the *Client* during any works.

S 505 Information required

1. Not used

S 506 Revised programme

1. All submissions of revised programmes should include a full explanation of any changes in sequencing and duration of the work activities from the previous accepted programme.

S 507 Monthly reports

1. Ref S802

S 600 Quality assurance

S 601 Samples

1. Samples of materials shall be provided as required in the Scope. The *Contractor* shall allow sufficient time for samples to be taken and accepted and if required additional samples taken in order not to impact on the programme. Refer to testing requirements in S 1800's

2. Results from the sample testing must be submitted to the *Supervisor* within 2 weeks of the material being placed on the beach.

S 602 Quality statement

1. The *Contractor's* Quality Control Manager is to certify that activities have been carried out in accordance with the contract when:

1) an experienced and qualified Surveyor has checked and certified that the work is in its correct position, level and alignment.
2) a works checker has checked and certified that materials, workmanship cleanliness and other matters not checked by the surveyor are correct; and
3) a testing technician has certified materials tests.

2. Copies of relevant supporting certificates relied on by the Quality Control Manager are to be attached to their certificate.

3. The *Project Manager* and/or the *Supervisor* may at any time audit the quality control process and for this purpose is given assistance and access by the *Contractor* to:

1) documents used in connection with the certification process, including but not limited to site diaries, calibration certificates, memos etc.; and
2) interview persons involved in Providing the *works*.

S 603 Quality management system

1. The *Contractor* is to describe the Quality Management System in a Quality Plan, which is to be provided to the *Project Manager* for acceptance within 28 days of the Contract Date.

2. The quality of the *works* is self-certified by the *Contractor* as set out in the accepted Quality Plan.

3. State any requirements for a quality management system, including accreditations or legislative standards.

S 604 BIM requirements

1. The *Contractor* needs to provide a dedicated BIM Information Manager to the support the project BIM requirement

S 700 Test and inspections

S 701 Management of tests and inspections

1. Testing and inspection of Materials and the *works* shall be undertaken in accordance with the Scope.

S 702 Covering up completed work

1. Any immediate covering up of any completed *works* shall be agreed with the *Supervisor* in advance.

S 703 *Supervisor's* procedures for inspections and watching tests

1. The *Supervisor* shall be given a minimum of 12 hours' notice to undertake any inspections and/or witness tests.

S 800 Management of the *works*

S 801 Project Teams – others

1. The project team 'Others' includes, but are not limited to:

1) *Client's* Project Executive
2) *Client's* Project Manager
3) *Client's* Project Sponsor
4) *Client's* Senior User and Senior User Representative
5) *Client's* NEAS officers
6) *Client's* Designer
7) Environment Agency's Operations personnel
8) Environmental Clerk of Works
9) CDM Principal Designer
10) Communications officer
11) BIM manager

S 802 Communications

1. Communications to and from the *Contractor* and storage of project files shall be administered through *Client* E-CDE (Asite)

2. All contract communications shall contain a unique reference number and shall be appropriately titled. Numbering logic and sequencing to be agreed with the *Project Manager* and in line with the IDP requirements.

3. Monthly progress meetings are to be held on site and chaired by the *Project Manager* who provides an agenda and minutes the meeting. Meetings shall be attended by the *Contractor's* project manager, agent, HSQE Manager and QS as a minimum.

4. The *Contractor*, *Project Manager* and *Supervisor* shall attend a weekly issues meeting, chaired by the *Project Manager*. This meeting may include members of the *Client* team via MS teams or similar.

5. Monthly progress reports shall be prepared by the *Contractor* and provided to the *Project Manager* for distribution to the project team a minimum of three (3) working days in advance of each monthly progress meeting. The progress report shall include those details listed in the Minimum Technical Requirements and:

1) Progress
   - Activities started, progressed and completed during the month.
   - Activities planned for the forthcoming month.
   - Summary of ground conditions encountered.
   - Summary of weather conditions experienced; and
   - Instructed changes to the Scope.

2) Labour/Materials/Equipment
   - Summary of principal equipment and materials brought to site or taken off site.
   - Subcontractors on site; and
   - Approximate numbers on site.
3) Programme
   - A marked up copy of the current programme showing progress and percentage completion of each activity; and
   - A revised programme (if appropriate)
4) Financial Forecast actual v forecast.
5) Issues
   - Problems encountered or anticipated
   - Issues log that will be reviewed and updated during monthly progress meetings an determine the appropriate action required to resolve.
6) Information/services required from the *Client*
7) Information required by the *Contractor*
8) Public Relations
   - Contacts with the public or other third parties; and
   - Complaints or claims.
9) Health & safety incidents
10) Environmental
   - Breaches of the EAP.
   - Carbon calculator update
   - Pollution incidents, etc.; and
   - Recycling and waste reports.
11) Efficiency register
12) Team Performance Measures (or equivalent)
13) Representative progress photographs.
14) Any other issue/subject requested by the *Project Manager*

6. The *Contractor* shall provide a summary 2 week look ahead programme which shall be updated and issued on a weekly basis to the *Project Manager* and *Supervisor*.

7. The Client's NEC standard contract forms shall be administered through Fastdraft contract management system.

8. Terminology and abbreviations:

1) Pre-starting condition surveys – Surveys (including a visual/photographic record) providing information of the existing state prior to any physical works being undertaken.

2) Area of Occupation – The area of beach closed off to the public to carry out the *works*.

3) Post-completion condition surveys – Surveys providing information at the end of the physical *works*.

4) Acceptance Certificate – Certificate issued to confirm acceptance by the *Project Manager* of the completion of a Nourishment Area as proposed by the *Contractor*.

5) BIM naming convention which will go into the BIM execution plan is as follows: -

Project	ENV0002657C	Saltfleet to Gibraltar Point – Beach Management (SGP-BM)
Author	EA	Environment Agency
Volume	CD	Coastal Defences
Location	ZZ	Multiple Locations – (Total Project)
Type	CD	Contract Document
Role	PE	Project Executive
Status	A4	Construction
Deliverable Ref	G0300	G0300 Contract Scope/Works Information
Stage	EA4	Construction
Level of Definition	LOD4	Construction
Year	2023	Year of Production
File Name	Document Name	Construction, Contract Scope

S 900 Working with the *Client* and Others

S 901 Sharing the working areas with the *Client* and Others

1. Refer to S 504

S 902 Co-Operation

Public relations

1. The *Contractor* understands the importance of and assists the *Client* to establish and maintain good public relations during the contract and thereafter. *Contractor* shall provide a Public Liaison Officer for each in-year campaign (1 FTE) keeping the public informed; publicising the project and the work of the *Client* in general; liaising with *Client's* Public Relations Officer, residents, businesses and landowners; dealing with complaints; and supporting the *Client* in dealing with the press and media. The *Contractor* shall inform the *Client* within 24 hours of any complaint.

   The Contractor to provide a means of informing the public of the works before during and after. Also collect feedback of all public communications.

2. The *Contractor* notifies the *Project Manager* of all press or media enquiries and refers them to the *Client*.
3. Also refer to the Minimum Technical Requirements.
4. Special Requirements in Relation to UK Piers Ltd (Owners of Skegness Pier)

The *Contractor* is to keep the owner of the pier fully informed of any work within 100m of the pier. Refer to contact details for the owners of Skegness Pier:

Organisation	Contact	Address
UK Piers Ltd	[redacted]	[redacted]

5. Special Requirements in Relation to Highways Division of Lincolnshire County Council

2 weeks prior to the delivery of any plant, cabins, pipelines, etc. the *Contractor* is to meet on *site* with a representative of the Highways Division to agree access routes.

The *Project Manager* is to be informed of the results of this meeting within 48 hours of the meeting.

Refer to contact details of the Lincolnshire County Council Highway Division:

Council	Contact	Address
Lincolnshire County Council East Lindsey Division (Wolds and Coast)	[redacted]	[redacted]

6. Special Requirements in Relation to Lincolnshire Coast Fishermen's Association

The following accesses are regularly used by the members of the Lincolnshire Coast Fishermen's Association (LCFA) and are not to be restricted:

Seaview Pullover	Co-ordinates	N 557180 – E 363960
North Shore Pullover	Co-ordinates	N 557170 – E 364600
Jacksons Corner	Co-ordinates	N 557300 – E 366200
Ingoldmells Point	Co-ordinates	N 531920 – E 355411

Where pipelines along the beach restrict access, the *Contractor* is to provide ramps over the pipelines suitable for a Land Rover and fishing boat trailer.

The *Contractor* is to provide the LCFA with a 24-hour, 7 days a week contact telephone number for the Fisheries Liaison Officer.

The *Contractor* is to liaise regularly with LCFA and to generally co-operate with its members. The *Contractor* shall inform LCFA 2 weeks before pipelines are moved.

The *Contractor* shall provide LCFA with marked-up charts showing pipeline positions.

Refer to contact details of the Lincolnshire Coast Fishermen's Association:

Position	
Secretary	[redacted]
Chairman	

[redacted]

7. Special Requirements in Relation to Eastern Inshore Fisheries and Conservation Authority (Eastern IFCA)

Prior to commencing work the *Contractor* is to liaise fully with the Eastern IFCA regarding the position and movement of pipelines, routes the *Contractor*'s vessels will take between the dredging area(s) and the onshore site.

The *Contractor* is to furnish the Eastern IFCA with a marked-up chart showing pipeline positions and access routes etc.

Refer to contact details for ESFJC:

Position	[redacted]
Clerk	

8. Special Requirements in Relation to other Offshore Fishing Interests

The *Contractor* may be required to attend and participate in a pre-commencement meeting and then monthly meetings with representatives of the offshore fishing interests. A final meeting may be held following the completion of the dredging operations.

The meetings, if required, will be arranged by the *Client* and held in either North Norfolk, Cambridgeshire or Lincolnshire.

If meetings are to be held, the *Contractor* shall prepare a chart indicating the route to be taken by vessels travelling between the dredging area(s) on the onshore site.

Meetings are not expected to last longer than 2 hours.

9. Special Requirements in Relation to the Department for Environment, Food and Rural Affairs (Fisheries Office)

One month prior to the commencement of dredging the *Contractor* is to contact the Department for Environment, Food and Rural Affairs Ministry of Agriculture (Defra) at Lowestoft and Grimsby so that a Notice to Fishermen may be issued.

The *Contractor* is to liaise with Defra regarding the position and movement of pipelines and routes between the dredging area(s) and the onshore site.

The *Contractor* is to work to the Code of Practice for the Extraction of Marine Aggregates December 1981.

Refer to contact details for the Defra District Inspector of Fisheries:

Position	[redacted]
Defra District Inspector of Fisheries	

10. Special Requirement in Relation to Port of Boston Ltd

At award of contract the *Contractor* shall provide the Harbour Master with sufficient information to enable the issue of a Notice to Mariners. Refer to contact details for the Port of Boston Ltd:

Position	[redacted]
Harbour Master	

11. Special Requirements in Relation to King's Lynn Conservancy Board

At award of contract the *Contractor* is to contact the Deputy Harbour Master and provide similar details to those submitted to the Port of Boston Ltd. Refer to contact details for the King's Lynn Conservancy Board:

Position	[redacted]
Deputy Harbour Master	

12. Special Requirements in Relation to Royal National Lifeboat Institution

There are RNLI stations in Mablethorpe and Skegness at the northern and southern end of the *works* respectively. The lifeboats are launched from Tower Esplanade in Skegness and from the promenade in Mablethorpe.

The *Contractor* shall:

Ensure that at no time is the launching of the lifeboats impeded by pipelines, plant, etc.

Provide the coxswains of the lifeboats with a 24-hour, 7 days a week contact telephone number for the *Contractor* during the duration of each in-year campaign

Refer to contact details for the RNLI:

Position	[redacted]
Hon. Sec. Mablethorpe Lifeboat	
Vice-Chairman Skegness Lifeboat	

13. Special Requirements in Relation to Trinity House

If the dredged sand is pumped ashore along a submerged pipeline from a fixed floating buoy moored offshore, the *Contractor* shall meet the following requirements:

- The floating buoy shall be yellow spherical.
- At any time that the dredger is not alongside the buoy, the buoy shall exhibit a flashing yellow light of minimum range 3 nautical miles Flash every 2.5 or 5 seconds.
- Temporary notice boards are to be erected on the north and south of where the pipeline comes ashore, warning mariners to stay clear of the pipeline and associated works; and
- All dredgers are to exhibit signs and signals as per the Prevention of Collision at Sea Regulations.
- plus, any other provisions required by Trinity House.

The *Contractor* shall notify Trinity House that the pipeline has been marked in accordance with these instructions.

Should the *Contractor* use another method for bringing dredged sand ashore they are to comply with any alternative conditions that Trinity House may impose. The *Contractor* will be responsible for informing Trinity House in good time to avoid delays.

14. Special Requirements in Relation to HM Coastguard

At award of contract the *Contractor* shall notify the coastguard of the commencement of the *works*. Refer to Table 9 for contact details. The *Contractor* shall provide details of the lights, buoys, etc. to be used to mark pipelines, etc. Refer to contact details for the HM Coastguard:

Position	[redacted]
District Operations Manager, Yarmouth MSRC	

15. Special Requirements in Relation to Lincolnshire County Archaeologist

The *Contractor* shall inform the County Archaeologist of their intentions at least 4 weeks before any nourishment takes place.

Refer to contact details for the Lincolnshire County Archaeologist:

Position	[redacted]
County Archaeological Officer	

16. Special Requirements in Relation to Natural England

The *Contractor* shall inform Natural England of their intentions at least 4 weeks before any nourishment takes place.

Refer to contact details for Natural England:

Position	[redacted]
Maritime Conservation Officer	

[redacted]

S 903 Co-ordination

1. The *Contractor* employs the services of an Onshore Fisheries Co-ordinator to be based in the *site* offices and a Fisheries Liaison Officer(s) aboard each of the *Contractor*'s dredgers involved in the *works*.
2. The Onshore Fisheries Co-ordinator shall be expected to be on call 7 days per week, 24 hours per day, during the construction period. They should also be present at the site office for a minimum of 10 hours each week when one or more dredgers are operating on the nourishment works. The duties of the Onshore Fisheries Co-ordinator shall be generally as detailed in, but not limited to, the following:

- Receive reports from Fisheries Liaison Officer(s) and pass on information to fishing organisations, the *Contractor* and the *Project Manager* as appropriate.
- Contact the *Project Manager* to report abnormal events or potential problems.
- Provide a brief report of abnormal incidents weekly to the *Project Manager*.
- Contact fishing organisations regularly (at least weekly) to liaise and inform of potential problems or abnormal operations. Circulate typed newsletter monthly (or more frequently, if necessary) to fishing organisations at affected ports.
- Liaise with the *Contractor* to prepare and update as necessary method statements for liaison arrangements, times of transit and the inshore working area. The text of these statements shall be agreed with the Defra District Inspector of Fisheries prior to issuing to fishing organisations.
- Set up a rota to ensure the continuity of Fisheries Liaison Officer(s) on the dredging vessels.
- Arrange for standby Skippers in case of illness or unforeseen unavailability.
- Arrange for the local ports/areas (Grimsby, Lincolnshire, Boston and District, Kings Lynn, Wells and District and Lowestoft) to be represented on the Fisheries Liaison Officer(s)' rota.

3. Manage the Fisheries Liaison Officer(s) in accordance with their specified Responsibility and Duties; and
4. Collate and provide Fisheries Liaison Officer(s) logs to the *Project Manager*.

5. The duties of the Fisheries Liaison Officer(s) shall be generally as detailed in, but not limited to, the following:
    - To act as a contact between fishing vessels and dredging vessels during the operations to minimise disruption to the fishing activity in the area of operations. Fisheries Liaison Skippers are only required on the dredging vessels when vessels are operating on the *works*.
    - One Fisheries Liaison Officer(s) per operating vessel is required 24 hours per day for 7 days per week when the vessels are operating on the *works*.
    - The Fisheries Liaison Officer(s) will take instructions from and report to the Onshore Fisheries Co-ordinator on the following matters:
        - requirements of duty rota
        - submission of log sheets
        - abnormal events or potential problems
6. The Fisheries Liaison Officer(s) will keep a detailed time related log of:
    - the dredger's movements
    - weather and sea conditions (including visibility)
    - details of any fishing vessels working in the dredging area in the vicinity of the transit routes and in the working area
    - communication by the dredger captain, dredger crew and Fisheries Liaison Officer(s) with any other vessels
    - any incidents occurring which may affect fishing interests
    - in addition, full details are to be recorded of any incident involving loss or damage to fishing gear
7. The Fisheries Liaison Officer(s) will keep a listening watch on V.H.F Channel 16 and communicate, where necessary, with other vessels on Channel 8;
8. Any incidents which are of a serious nature are to be reported immediately to the Onshore Fisheries Co-ordinator. The Fisheries Liaison Officer(s) will not give instructions to the *Contractor* or to any other vessels.
9. Log sheets are to be in accordance with the Fisheries Liaison pro-forma with the following information:

- Wind speed and direction: Beaufort Scale 0-12 e.g. SW4
- Sea state: Calm, smooth, slight, moderate, rough, very rough, high, very high, phenomenal, (over 37ft)
- Swell: Direction and height in metres
- Visibility: In nautical miles
- Date: In top left corner, to be entered when beginning a new sheet
- Dredger activity: Enter whatever vessel is doing at time of log entry or any activity with implications for fishery, e.g. dumping of cargo
- In addition to entry of incidents occurring, log to be completed at 0800, 1200, 1600, 2000 and 2400 hrs

10. Block capitals to be used for all entries.
11. Standard of Service required is as follows:

- The Onshore Fisheries Co-ordinator and Fisheries Liaison Officer(s) shall have a minimum of 5 years relevant experience. The Fisheries Liaison Officer(s) shall be members of a Fishermen's Organisation of the local ports/ areas e.g. Grimsby, Lincolnshire, Boston and District, Kings Lynn, Wells and District and Lowestoft.
- Fisheries Liaison Officer(s) shall be familiar with GPS and able to use radar.
- The Onshore Fisheries Co-ordinator and Fisheries Liaison Officer(s) shall hold a valid VHF radio licence.
- The Onshore Fisheries Co-ordinator and Fisheries Liaison Officer(s) shall have completed a Merchant Navy Training Board approved Basic Survival at Sea Course.

12. All written reports and method statements provided by the Onshore Fisheries Co-ordinator shall be typed.
13. The *Contractor* forthwith and with despatch raises and removes any vessel, material or equipment belonging to them or to any Subcontractor or to any person employed by them which may be sunk or beached during the execution and completion of the *works* or otherwise deal with the same as the *Project Manager* may direct.
14. Until the item has been raised and removed the *Contractor* sets all such buoys and displays at night such lights and does all such things for the safety of navigation as may be required by the appropriate authorities or by the *Project Manager*.
15. If the *Contractor* does not carry out the obligations imposed on them by this clause the *Project Manager* may buoy and light the item and raise and remove the same (without prejudice to the right of the *Client* to hold the *Contractor* liable) and the *Contractor* refunds to the *Client* all costs incurred therewith.
16. The fact that the sunken vessel, material or equipment is insured or has been declared a total loss does not absolve the *Contractor* from their obligations under this clause to raise and remove the same.
17. The *Contractor* notifies the *Project Manager* of any requests for meetings with third parties relating to the *works* so that the *Project Manager* has the option to attend or send a representative.
18. The *Contractor* records all meetings and agreements with third parties relating to the *works* and notifies the *Project Manager* of the details.

S 904 Authorities and utility providers

Refer to section S 206.

1. The *Contractor* notifies the *Project Manager* in advance of any diversion or removal of apparatus, which the *Contractor* requires for their own convenience or because of their proposed methods of working. The *Contractor* arranges (including obtaining any necessary permissions, notices, licences or consents) and undertakes any such additional diversion or removal of apparatus.
2. The *Contractor* provides a record drawing of services and apparatus encountered and highlights the differences with the information provided by the Statutory Undertaker and Highway Authority and issues this to the *Project Manager*.
3. The *Contractor* complies with HSE Guidance Notes, Statutory Undertakers and private company requirements when working in the vicinity of their apparatus.

S 905 Diversity and working with the *Client*, Others and the public

1. There is a requirement for public access to parts of the site to be maintained during the whole period of execution of the *works* (see also S 201), and for operation and maintenance and emergency access through the site by Environment Agency Operations. Such use of the *works* will not constitute the *Client* taking over any part of the *works*.
2. The Environment Agency as a regulatory authority
    - The Environment Agency's position as a regulatory authority and as *Client* under the contract are separate and distinct. Actions taken in one capacity are deemed not to be taken in the other.
    - Where statutory consents must be obtained from the Environment Agency in its capacity as a regulatory authority, the *Contractor* is responsible for obtaining these and paying fees. The Environment Agency's acceptance of a tender and the *Project Manager*'s instructing or varying work does not constitute statutory approval or consent.
    - An action by the Environment Agency as regulatory authority carrying out enforcement investigation/action and/or prosecution is not in its capacity as *Client* and is not a compensation event.
    - Through the progression of this scheme the *Contractor* may need to consult with several different Environment Agency staff in different functions. This should be done via the P*roject Manager, Supervisor* and *Client* Project Manager.
3. Working with others
    - The *Contractor* will liaise with the *Client*, *Project Manager*, NGSA Suppliers and other relevant parties to resolve any technical queries.
    - The *Contractor* will attend and support any public engagement events, at least one, to be specified by the *Client*.
4. Co-operation with the CDM Principal Designer

- The work on *site* as well as all the detailed design leading to construction will be subject to notification to the HSE.
- The *Client* will provide a CDM Principal Designer for this scheme. The *Contractor* shall be responsible for supplying risk assessments, method statements and any other data for their comment and include for any work required for the following review.
- The *Contractor* will co-operate with the CDM Principal Designer.
- The *Contractor* will pro-actively support the preparation and completion of the H&S File. The production of the file shall commence at the beginning of the commission and be actively managed throughout.

5. Through the progression of this scheme the *Contractor* may need to consult with several different Environment Agency staff in different functions. The *Contractor* must ensure that they record these discussions and issue to the *Client* with 5 working days.
6. The *Contractor* shall work to the *Client's* governance structure and communication plan.

S 1000 Services and other things to be provided

S 1001 Services and other things for the use of the *Client*, *Project Manager* or Others to be provided by the *Contractor*

1. The *Contractor* shall, in addition to the Minimum Technical Requirements, provide and maintain the following for use by the *Project Manager*:
   - a broadband connection with a suitable internet service provision of at least 50 MB/s and pay all connection and monthly charges.
   - an all-in-one printer/fax/scanner/copier colour laser jet A3/A4, USB cable and connection cable for the fax, software and a supply of ink cartridges/toner and paper.
   - a supply of postage and packaging materials and postal collection and delivery from site.
   - Within 9 months of the contract award prepare a contract exit plan for contract completion.
2. The *Contractor* will provide a means of informing the public such as use of a mobile Public Information Unit (PIU) and shall be responsible for the maintenance and management of the Unit ensuring it is fit for accessibility purposes. The *Contractor* shall be responsible for providing scheme relevant information within the PIU which has been agreed with the *Client*.
3. The *Contractor* shall provide/host a virtual community hub in agreement with the *Client* for engagement and information.
4. The *Contractor* shall be responsible for reinstating the site compound area to its contract commencement condition before Completion.
5. Data Exchange

   Where data cannot be accessed directly in the master data set, for business or technical reasons, the data is exchanged. The *Contractor* provides processes for data exchange that maintain integrity, currency and confidentiality in a manner appropriate to the Business Impact Level of the data. The *Client* reviews and approves the processes and reserves the right to audit the processes and data exchange.

   Within 9 months of the contract award have an IDP/EIR and COBI file developed collaboratively with the *Client*.

6. Security

   All systems handling or processing data are required to be accredited to a level commensurate with the defined Business Impact Level assigned to the data by the Executive Data Custodian. The accreditation process will follow the IS1/IS2 standards mandated by HMG. Satisfactory accreditation is achieved following the sign-off by the Environment Agency's Accreditor.

The *Contractor* demonstrates how it will manage related systems and data that have Confidentiality Levels of 2 and 3.

The data custodian for project deliverables from this commission will be the *Client*.

7. Intellectual Property

The *Client* will either own or have a very broad licence to use the IPR to the data, data models, tools, processes, models, and documentation created and used in the project team. The *Client* has the right to access any background IPR used by the *Contractor*. For the avoidance of doubt, the *Client* can continue to use the models and data used in the programme in the absence of the *Contractor(s).*

At the end of the Contract or at any other point determined by the *Client*, the *Contractor* provides this information. The format of the extract is determined by the *Client* at the time.

8. Change Management

During the envisaged Contract term, the standards, systems and processes within the *Client* will change. This may be for statutory and regulatory reasons or to support business change and best practice. The *Contractor* ensures that data, systems, tools, models and processes are updated to be consistent and compatible with those of the *Client*.

9. Reporting

The *Contractor* provides flexible, configurable reporting for Quality Assurance, Project Assurance, Key Performance Indicators, Key Performance Measures and other metrics as required by the *Client*. It is anticipated that in addition to standard reports the *Contractor* will be able to create and run ad-hoc reports, as requested by the *Client*, which support the review and analysis of the data driving the high-level metrics.

10. Building Information Management (BIM)

The *Client* requires the *Contractor* to deliver Building Information Modelling (BIM) in line with the Environment Agency and Government Construction Strategy. The requirements are defined in the Exchange Information Requirements (EIR) and Minimum Technical Requirements (MTR).

11. Assistance for the *Project Manager* and *Supervisor*

- The *Contractor* provides reasonable assistance to the *Project Manager* and *Supervisor* in carrying out their duties.
- The *Contractor* provides the services of competent surveying assistants, as and when required by the *Supervisor* at one hour's notice. The assistants will undertake surveying and other duties as the *Supervisor* requires.

S 1002 Services and other things to be provided by the *Client*

1. The *Client* shall propose a suitable area for site compound which is currently at Anderby Creek.

2. The *Client* shall ensure a Marine Licence is in place to allow dredging and beach nourishment to proceed

S 1100 Health and safety

S 1101 Health and safety requirements

1. The *Contractor* shall comply with the *Client's* Safety, Health, Environment and Wellbeing Guidance '300_10_SD27 SHE Code of Practice' and any future editions.

2. Method statements

Method statements and risk assessments should be submitted to the *Project Manager* for acceptance for the following activities as a minimum:

- *site* set up
- Excavation works
- Maintenance ramps
- Any works impacting upon the local highways
- Interface with beach users and business operators
- Storage of materials
- Transportation of materials and routes (through/across the *site*)
- Other method statements as listed in the Environmental Action Plan

The *Contractor* shall submit the documents allowing the minimum period for reply unless agreed otherwise with the *Project Manager*.

S 1102 Legal requirements

CDM Regulations

The Construction (Design and Management) Regulations 2015 (the CDM Regulations) apply to the *works*.

The CDM Principal Designer is: [redacted]

The CDM Client shall be the *Client's* Project Executive. All Risk Assessment and Method Statements shall be issued to the CDM Client and the CDM Principal Designer for review prior to carrying the activity to which the RAMS have been prepared.

The *Contractor* copies to the *Project Manager* all correspondence with the CDM Principal Designer.

S 1103 Inspections

1. The *Contractor* shall make all health and safety records available to the *Project Manager* for inspection if required.

2. The *Contractor* shall summit a summary of the findings found during any audit, review or comment (including the *Client's* Green Book) along with the proposed action to sustain, learn or improve from the feedback. This summary shall be presented and discussed at every monthly management meeting with the *Client*, *Project Manager* and *Supervisor*.

S 1200 Subcontracting

The *Contractor* may subcontract work using an NEC contract.

S 1201 Restrictions or requirements for subcontracting

1. The *Contractor* shall submit their proposed procurement procedure to the *Project Manager* for acceptance. It is anticipated that all contracts will be back-to-back with the main contract. Where this is not the case, then approval will be required prior to letting that contract. The procedure is not accepted if it:
    - does not follow best practice principles.
    - conflicts with the need to ensure transparency in the disbursement of public funds; or
    - does not meet other requirements stated in this contract.

S 1202 Acceptance procedure

1. In addition to those stated in ECC clause 26.3, the *Contractor* keeps the following accounts and records:
    - The *Contractor's* senior representative on site shall attend a weekly meeting at which the progress of the *works* will be recorded by the *Project Manager*. At this meeting, the *Contractor* provides to the *Project Manager* a detailed statement of all plant and personnel employed on the *works*, together with details of dredger downtime, breakdowns, stoppages, and accidents that occurred during the previous week or any other details the *Project Manager* reasonably requests. The *Contractor* also provides the *Project Manager* a statement as to what work is to be undertaken during the following week.
    - The *Contractor* submits to the *Project Manager*, daily, a record of sea and weather conditions.
    - Log sheet(s) to be completed by the Fisheries Liaison Officers(s).

S 1203 Procurement of subcontractors

1. *Contractor* to send through a list of proposed Subcontractors to the *Project Manager* for acceptance prior to the contract start date and updates as required
2. Sub-contractors shall be selected using best value processes.

S 1300 Title

S 1301 Marking

1. Where appropriate, indelible identification and orientation marks shall be put on all precast concrete components in such a position that the marks shall not show or be exposed in the finished work.

S 1302 Materials from excavation and demolition

1. The *Contractor* has title to the materials from excavation and demolition, excepting those required in the *works*. Disposal of all materials shall be in accordance with statutory requirements. All deleterious material resulting from the *works* shall be disposed of in accordance with the statutory requirements. Before disposing of any material, the *Contractor* submits to the *Supervisor* details of the proposed disposal area and the type of haul plant to be used together with the route to be adopted.

S 1400 Acceptance or procurement procedure

Not used

S 1500 Accounts and Records

S 1501 Additional Records

1. Contract Administration

The following additional records are to be kept by the *Contractor*:

- Timesheets and site allocation sheets, which should be submitted with monthly applications. The Project Cost and Carbon Tool (PCCT) will be applicable on this project and both defined costs and forecasts.
- Equipment records. The PCCT will be applicable on this project and both defined costs and forecasts.
- Forecasts of the total Defined Cost. The PCCT will be applicable on this project and both defined costs and forecasts.
- Specific procurement and cost reports. The PCCT will be applicable on this project and both defined costs and forecasts.

- The format and presentation of the records to be kept are to be approved by the *Project Manager*.

2. Monthly Progress Reports

- The *Contractor* submits monthly progress reports to the *Project Manager*, on a regular date to be stated by the *Project Manager*.

3. Photographs

- In addition to the photographs taken during 'pre-starting condition surveys' the *Contractor* is to take regular photographs of the work as it progresses and as further required by the *Project Manager* or *Supervisor*.
- The photographs are to be taken by a competent photographer using a digital camera. All photographs are to be date stamped and filed electronically in a chronological and identifiable manner. The photographs are to be submitted in electronic format to the *Project Manager* and *Client* on a fortnightly basis and uploaded on to the *Client's* CDE tool. All photographs should be zipped up and labelled as the Year, Week, profile/location, (1, 2, 3 etc.)
- Representative progress photographs are to be included with monthly Progress Report.
- Upon Completion, the *Contractor* is to ensure that all photographs have passed to the *Project Manager* or have been transferred to the *Client's* CDE. They become the property of the *Client*. The *Contractor* ensures that no use is made of the photographs without the written approval of the *Client*.

4. Video

- The *Contractor* shall support the requirements of the *Client* in providing video material to help support communications and complying with the requirements of BIM and data management. This material shall cover all operations required to deliver the *works* to support the project team in raising awareness of the project activities.
- The material shall be used but not limited to presentations, webpages and newsletters.
    - The *Contractor* shall produce in conjunction with the *Client* the following training materials:
    - A coastal learning video / material that could be used within primary schools.
    - A coastal learning video / material that could be used within secondary schools.
    - A video that records and demonstrates the world class nature of our Lincolnshire Coastal Works.
    - An industry safety video.

S 1502 Application for Payment / Invoice

1. The *Contractor* is required to provide evidence of costs in the following format: [redacted]
2. Submission of an application for payment after April 2024 without an appropriately completed LIT 61272 will **not** be recognised or treated as a compliant submission. Until that date this is only required for contracts identified as being within the pilot. After that date ALL contract shall comply.
3. FastDraft Carbon Forecast (Monthly Reporting) provided via *Contractor* Carbon Forecast Form in FastDraft
4. The *Contractor* Carbon Forecast Report must contain

    (1) Capital Carbon Actuals to date,

    (2) (latest) Capital Carbon Forecast (based on actuals and remaining emissions to outturn) and

    (3) (Not Used
5. The *Contractor* Carbon Forecast Report may be supported by details of actual emissions to date against an agreed breakdown of asset/service/product lines taken from the (latest) Verified Capital Carbon Forecast.

S 1600 Parent Company guarantee (Option X4)

1. A Parent Company Guarantee will be required

S 1700 Performance Bond - Not Used

S 1800 Advanced Payment Bond – Not Used

S 1900 Low Performance Damages – Not Used

S 2000 *Client*'s work specifications and drawings

S 2001 *Client's* work specification

1. Preamble to specification

The following definitions apply to the roles and terms identified in CESWI 7:

The *Client* is the Employer.

- Although specific reference the Contract Administrator has been removed, this is the *Project Manager* or *Supervisor* as appropriate.
- Although specific reference the *Contractor* has been removed, this is the *Contractor*.
- Approval is acceptance.

If the *Contractor* is in any doubt as to whether a matter should be raised with the *Project Manager* or the *Supervisor*, they shall ask the *Project Manager*.

2. Technical specification and drawings

The *works* are to be constructed according to the Scope and as shown on the drawings listed in S 2002. The final design volumes will be determined in February of each campaign. The actual volume and location of the *works* will be confirmed in writing to the *Contractor*.

S 2002 Drawings

1. The drawings for the *works* are provided in Appendix 3. These will be updated to reflect the new project referencing. The information they provide in terms of areas and general arrangement remain the same.

S 2003 Standards the *Contractor* will comply with

S 2004 Environmental best practice

1. The *Client* is committed to the environmental principles of stewardship and sustainability and has corporate goals to maintain and enhance the water environment. The Environment Agency's Statement on Sustainable Construction is included in S 101. The *Contractor's* plans and methods are to assist the *Client* in achieving these goals.
2. Within 9 months of the contract award the scoping of the BREEAM assessment will be carried out collaboratively with the *Client*.
3. The *Contractor* shall complete a BREEAM Infrastructure for Term Contract assessment yearly (or as per the assessment cycle agreed with BRE) based on the current version of the BREEAM Infrastructure for Term Contract Technical Manual requirements.
4. The *Contracto*r shall provide a qualified BREEAM assessor responsible for agreeing the scope with the *Client* and the verifier on an annual basis

5. The *Contractor* shall set up and undertake the assessment and evidence-gathering throughout the Services, using the BREEAM online tool via BREEAM Projects.
6. The *Contractor* shall provide evidence to support the *Client* with scope submission to BRE, as well as provide supporting information to the *Client* when handling Verifier consultation.
7. The *Contractor* sustainability (BREEAM) lead shall be an integrated member of the project team, attending progress meetings, key project workshops including, but not limited to, options/ design and risk as required, providing an update against BREEAM targets and championing sustainability across the project team.
8. The *Contractor* shall provide all BREEAM related evidence to the *Client* upon request,
9. The *Contractor* shall ensure completion of the BREEAM process including provision of all evidence onto the BREEAM online tool prior to contract completion.
10. The *Contractor* provides the *works* in accordance with environmental best practice. The *Contractor*'s attention is drawn to, but not limited to, the following documents:
    - BRE – Green Guide to Specification.
    - BRE – Materials Information Exchange.
    - CIRIA SP122 – Waste Minimisation and Recycling in Construction (practical guidance);
    - CIRIA C513 – The Reclaimed and Recycled construction materials Handbook.
    - CIRIA C533 – Environmental Management in Construction.
    - Considerate Constructor Scheme.
    - General Guide to the Prevention of Water Pollution: PPG1.
    - Works in, near or liable to affect Watercourses: PPG5.
    - Working at construction and demolition sites: PPG6.
    - Pollution Prevention Guidelines Marinas and Craft: PPG14; and
    - Pollution Prevention Guidelines Pollution incident response planning: PPG21.
11. The *Contractor* demonstrates their proposals to minimise environmental impacts and to comply with environmental best practice principally through the content of and adherence to their Method Statements.

S 2005 Site Waste Management Plan

1. The *Contractor* complies with the Work Instruction "Implementing Site Waste Management Plans for Agency construction projects".

S 2006 Environmental Action Plan

1. The *Contractor* complies with the Environmental Action Plan.

S 2007 Environmental staff

1. The Environment Agency's Area representative for statutory environmental approvals and consents is: [redacted]
2. The *Contractor* copies all correspondence between the Environment Agency's Area representatives and the *Contractor* to the *Project Manager*.
3. An Environmental Clerk of Works (ECW) will monitor the *works* against the Environmental Action Plan.

S 2008 Flood Defence Requirements

1. Maintenance of existing standards of flood defence
   - The existing flood defence seawalls within the boundaries of the *site* are shown on the drawings listed in S 2002.

     Existing flood defences expected to be affected by the *works* include: The beach and seawalls between Mablethorpe and Skegness.
2. Land drainage consents
   - The *Contractor* complies with the Land Drainage Act 1991, the Water Resources Act 1991 and Byelaws.
   - The proposals for any *works* and/or temporary works, to be carried out in, over, under or adjacent to a watercourse may require the prior statutory consent of the Environment Agency. A consent application is submitted to the Environment Agency with full and detailed information of the proposed works.
   - Any consent issued by the Environment Agency does not relieve the *Contractor* of their responsibilities regarding temporary works and the Environment Agency will not be held liable for any damage resulting from the construction thereof.

S 2009 Control of pollution requirements

1. The *Contractor's* attention is drawn to the control of pollution provisions in the Water Resources Act 1991. The *Contractor* is to take all necessary precautions to ensure that no polluting discharge either of solid or liquids is made to any watercourse or to the underground strata and that no work carried out in any watercourse is done in such a manner as to cause pollution. Any materials which accidentally fall into any watercourse are to be removed immediately.
2. The *Contractor* is to obtain the consent of the Environment Agency before making any discharge to any watercourse or the underground strata.

3. The *Contractor* is to take all necessary precautions to protect all watercourses, together with water in underground strata, against silting, erosion and pollution.
4. The *Contractor* ensures that:
    - equipment is cleaned prior to delivery to site and maintained to ensure efficiency and to minimise emissions.
    - all fuel, hydraulic fluids, lubricating oils or chemicals stored in bulk on site are located as far away as reasonably possible and in no case closer than 10 m, from any watercourse/drain and that such stores are sited on impervious bases and surrounded with an effective and impervious bund capable of holding the full contents of the store plus 10%. The drainage system of the bund is to be sealed with no discharge to any watercourse, drain, land or groundwater and delivery and vent pipes are to terminate within the bund.
    - all stores are kept locked when not in use and all containers are clearly labelled with their contents. Leaking or empty oil drums or chemical containers are removed from the site immediately.
    - equipment which leaks any fuel, lubricant or hydraulic fluid is not used and all static equipment using fuel oil is located as far away as reasonably possible from any watercourse and surrounded with oil-absorbent material to contain spills or leaks.
    - refuelling or servicing of equipment is undertaken in designated locations away from watercourses or drains and refuelling is supervised and carried out by pumping through a trigger type delivery nozzle.
    - an adequate supply of oil absorbent materials is always readily available on site. Any spillage is immediately contained, removed from site and disposed of to a licensed tip and the *Supervisor* promptly informed.
    - equipment is not used in a watercourse or to ford a watercourse without the consent of the Environment Agency. Regular river crossings are to be by way of temporary bridges or culverts and to be by agreement of the Environment Agency.
    - haul roads and approaches to watercourses are regularly scraped and maintained free from deposits of slurry. Any slurry so removed is disposed of in an agreed location avoiding pollution of the watercourse. Precautions are to be taken to ensure surface water drains are not contaminated by solids from workings and associated transport.
    - there is to be no discharge or seepage of cement slurry from any concreting work, mixing plant or ready-mix vehicle into any watercourse.
    - equipment parking and servicing areas and wheel washing facilities are to be in agreement with the Environment Agency.
    - any imported fill or construction material is to be free from polluting or toxic substances where drainage from the material can directly enter surface or underground waters; and

- suitable sheeting is to be provided under any structure over a watercourse which is to be cleaned by mechanical or chemical means and/or painted to prevent material entering the watercourse.
- Compliance with the 50m exclusion zone around the end of outfalls.
- Without the consent of the Environment Agency, the *Contractor* is not to remove from a watercourse, deposits accumulated due to a dam, weir or sluice nor promote the removal of deposits by causing them to be carried away in suspension in the waters.

S 2010 Water resource requirements

1. The *Contractor*'s attention is drawn to the Water Resources Act 1991. The *Contractor* is to take all necessary precautions to protect water abstractions whether licensed or not. A list of licensed abstractions is available on a public register, but the *Contractor*'s attention is also drawn to the possible existence of domestic abstractions exempt from licensing.
2. The *Contractor's* attention is also drawn to the Conservation of Habitats and Species Regulations 2017, and Countryside & Rights of Way Act 2000.
3. The *Contractor* is not to reduce or materially alter the rate of flow passing down a watercourse, either permanently or temporarily.
4. Should there be works of a permanent nature in a watercourse which results in impounding of water, this may require a licence, and the *Contractor* is urged to contact the Environment Agency as soon as possible to initiate the procedures.
5. The abstraction of water from surface sources or underground sources for use in the *works* may require an abstraction licence and the *Contractor* is to contact the Environment Agency to initiate the procedures.

S 2011 Conservation and fisheries requirements

1. The *Contractor*'s attention is drawn to the Salmon and Freshwater Fisheries Act 1975, Eels Regulations 2009, the Water Resources Act 1991, the Wildlife and Countryside Act 1981, Ancient Monuments and Archaeological Areas Act 1979 and the Badgers Act 1991, Conservation of Habitats and Species Regulations 2017, and Countryside & Rights of Way Act 2000, and the Water Framework Directive. The *Contractor* is to take all necessary precautions to ensure that no work in any watercourse corridor is done in such a manner as to cause damage to flora and fauna.
2. The *Contractor* is to ensure that:
   - no riverbed or bankside material is removed for use in construction or for temporary bunds.
   - no vegetation, other than fallen trees, is removed from any watercourse unless agreed with the Environment Agency.
   - aquatic weeds are not removed in the period from the beginning of May to the end of August.

- aquatic weeds are not sprayed at any time.
- cut vegetation from approved clearance works does not enter any watercourse; and
- all necessary precautions are taken to prevent the spread of Japanese Knotweed and Giant Hogweed. Any spoil contaminated with the rhizomes or roots of these species is not to be spread to areas where those plants are not currently growing.

S 2012 Navigation requirements

1. The *Contractor* complies with the conditions of the MMO Marine Licence. This licence may require updating of vessel information prior to starting the *works* and will be provided by the *Project Manager* when received.

S 2013 Controlled Waste

1. Where materials arising from or required for the *works* constitute 'Controlled Waste' under the Environmental Protection Act 1990, the *Contractor* is to provide the *Supervisor* with a copy of the carrier's licence to transport the materials and copies of all Waste transfer notes.

S 2014 Sustainable Materials

1. New timber

The *Contractor* gains chain of custody certification on all work involving the use of timber. All new timber is provided from legal and sustainable sources – complete with FSC, PEFC or CSI certification.

2. Environmentally considerate hydraulic fluids

- The *Contractor* is to endeavour to utilise Equipment which uses environmentally considerate hydraulic fluid (either a synthetic ester or a vegetable oil-based derivative) in their hydraulic systems.
- All 360^{o} tracked excavators and bulldozers on *site* must only use environmentally considerate hydraulic fluid. Traditional mineral oils and glycols are not permitted. The *Client* or *Supervisor* may extract samples of oil from excavators on *site* for analysis at an independent laboratory. Failure to comply with this requirement results in the excavator not being permitted to work on *site*.

3. Recycled materials

- The *Contractor* complies with the Site Waste Management Plans Regulations 2008. The *Contractor* is to endeavour to meet or exceed the Environment Agency objective for recycled materials. The Midlands sustainability plan project level target is 'Recover, reuse and recycle more than 95% of waste from construction projects" with 85% target for aggregates. Materials being used in construction work being recycled, are defined below:

- New (primary) materials – basalt, clay, crushed rock, granite, gravel, limestone, sand, sandstone, other stone, concrete (ready mix) and other naturally occurring materials.
- Secondary materials – nourishment material, china clay, china/pottery etc, colliery spoil, combustion residue, foundry sand, quarry waste, refractories, shale, slate waste, furnace slag, pulverised fuel ash (PFA), furnace bottom ash, etc.

4. Recycled materials – recycled brick, crushed concrete, glass, natural stone masonry, processed road surface, tarmac, selected excavated fill (NB re-used general backfill material and re-used topsoil should not be included unless moved from one component to another), etc.

$$\text{Percentage recycled materials} = \frac{\text{Secondary + Recycled materials}}{\text{Total materials used}}$$

5. The *Contractor* is to prepare quarterly reports for the *Project Manager* detailing the breakdown of materials used (delivered) on *site* in the quarter and cumulatively to date. The data is presented in cubic metres (m^3) with the calculated 'percentage recycled materials' expressed as a percentage to one decimal place. Data includes materials provided or used by Subcontractors.

S 2015 Materials

1. Acceptance of material for beach nourishment

Materials for beach nourishment are only be taken from approved Crown Estate licensed dredging areas which must be accepted for compliance by the *Project Manager*.

The material required for beach nourishment complies with the grading envelope requirements defined in S 2018. The nominal D50 size of the material is 600 microns and the actual D50 size of the material lies within the range -50 microns to +150 microns of the nominal size. The material is free from clay, organic matter, heavy metals, oils and other contaminants. To achieve this the *Contractor* may:

- Use sand from one or more sources.
- Mix sand from two or more sources to provide a composite sand.

2. If a source other than an approved Crown Estate licensed dredging area is proposed to be used by the *Contractor*, then prior to acceptance of the use of the proposed source, the *Contractor* provides evidence of the suitability of the source. This includes:

(i) Analysis for potential contaminants such as organic matter, heavy metals, oils demonstrating that the material from the source has similar or less contaminant levels than those found at the *site*.

(ii) Analysis demonstrating that material from the source is not liable to decompose under the action of seawater.

(iii) Grading curve analysis from samples of the proposed material to demonstrate that the material is free of clay and complies with the grading envelope requirements.

3. Tests and analyses are in accordance with standard British or European specifications such as BS1377 Part 3 and BS1377 Part 2.
4. The *Project Manager* may reject the proposed source, if it is other than a Licensed Area. The *Contractor* then proposes an alternative source for the beach nourishment material meeting the requirements.
5. Any material larger than 100mm in size in any direction is removed from the site.

S 2016 Testing of material for beach nourishment before placing

1. Sand samples are analysed to determine the particle size distribution in accordance with clause 9.2, BS 1377 Part 2: 1990. Silt particles are expressed as a percentage of the total.
2. To comply with the MMO Licence item 5.2.11 the *Contractor* shall obtain and test samples from the beach within the Area of Occupation(s) prior to any *works* commencing within that length of coastline. The *Contractor* shall take at least 3 samples per Area of Occupation or as agreed with the *Supervisor*. All sampling to comply with above.

S 2017 Determination of compliance

1. Where the sand is used directly for beach nourishment (i.e. is not part of a composite sand) the results from the testing comply with the requirements of S 2015, and up to 5% of the testing results may be coarser than the upper limit of the grading envelope, and up to 5% may be finer than the lower limit of the grading envelope.
2. Where the sand is to become part of composite sand, then a composite particle size distribution curve is determined by combining the particle size distribution curves, tested in accordance with S 2015, for the samples for the sand sources used to provide the composite sand. The composite particle size distribution curve complies with the requirements of S 2015, and up to 5% of the testing results may be coarser than the upper limit of the grading envelope, and up to 5% may be finer than the lower limit of the grading envelope.
3. The actual cumulative D50 lies within the range -50 microns to +150 microns of the nominal D50 size given in S 2015.
4. The actual cumulative D50 is measured as a rolling average over 100,000m^3 of sand within each nourishment area or over the total volume of sand within each nourishment area for nourishment areas requiring less than 100,000m^3 of sand.
5. The *Contractor* undertakes a visual inspection of nourishment material in the dredger during the dredging operation and does not transport to and deposit on the *site* nourishment material that is visibly not compliant with S 2015.

6. The *Contractor* supplies to the *Supervisor* as soon as practicable, and in any case within 36hrs of delivery of the sand to which the samples/analyses relate, results of the sampling and analysis required under S 2015. These results include the values of the specified parameters for the delivery and the cumulative position with regard to the specified parameters.
7. The *Project Manager* does not certify for payment any delivery (and subsequent placing and profiling, etc) where samples have not been taken and analysed in accordance with the requirements of the Specification.
8. If at any point during the nourishment of a continuous length of coastline, on or after delivery of the first 10,000m^3 of sand, any of the parameters on a cumulative basis do not meet the specified compliance criteria, the *Contractor* forthwith notifies the *Supervisor* of the actions which they are taking to bring the relevant parameter(s) back into compliance (on a cumulative basis).
9. If in the opinion of the *Supervisor* at any stage during the contract, the *Contractor* persistently delivers and places sand which does not meet the requirements of S 2017 or the *Contractor* fails to control compliance on a cumulative basis or to effectively bring the relevant parameter(s) back into cumulative compliance within a reasonable time, the *Project Manager* may instruct the *Contractor* to cease operations until the *Contractor* has proposed, and the *Project Manager* has approved, suitable measures for the *Contractor* to take.
10. In calculating the actual cumulative mean particle size distribution for determination of compliance the *Project Manager* is free to ignore any series of deliveries/placements (including the initial 10,000m^3) where the sand does not meet the requirements of S 2015, and the *Contractor* produces the cumulative results excluding such deliveries as the *Project Manager* may from time to time request.

S 2018 Excavation, backfilling, and restoration

1. Beach nourishment

No material is removed from the existing beach without prior written permission from the *Supervisor*. The only deviation from this the requirement to comply with the beach material testing.

2. Method of working

- In areas where nourishment is undertaken in front of the natural dune systems special care is taken to avoid disturbance and damage to any vegetation in the beach.
- The *Contractor*'s method of working does not reduce the existing beach levels.
- Where nourishment material is to be placed over or against rock armour, or in similar situations where voids may be formed, the method of placing is such that all voids are filled to prevent subsequent surface collapse and settlement.

3. Pipelines and boosters

- The *Contractor* makes their own arrangements for the provision of sites for the fabrication of any pipelines.
- At least three weeks prior to commencing *works* the *Contractor* submits drawings to the *Project Manager* showing details of any proposed pipelines and booster stations and their positions. One of the main reasons for this requirement is to enable fishermen to be notified.
- All anchors or mooring points on the pipeline and the seaward connection point are clearly marked with marker buoys.

4. Beach nourishment profiles and placing tolerances

- The finished profiles of the nourished areas at acceptance by the *Supervisor* are as shown on the drawings listed in Appendix 3.
- The permitted tolerance for the finished profile of the beach at the time of acceptance by the *Supervisor* is as shown on the drawings listed in Appendix 3.
- To confirm the completed beach nourishment profiles are within tolerance, cross-sections are taken by the *Contractor* at a maximum spacing of 25 metres and extend from the existing sea defences to the water's edge. Surveys of newly completed lengths of beach are undertaken at low tide on the day they are completed or on the following low tide.

5. Measurement and acceptance

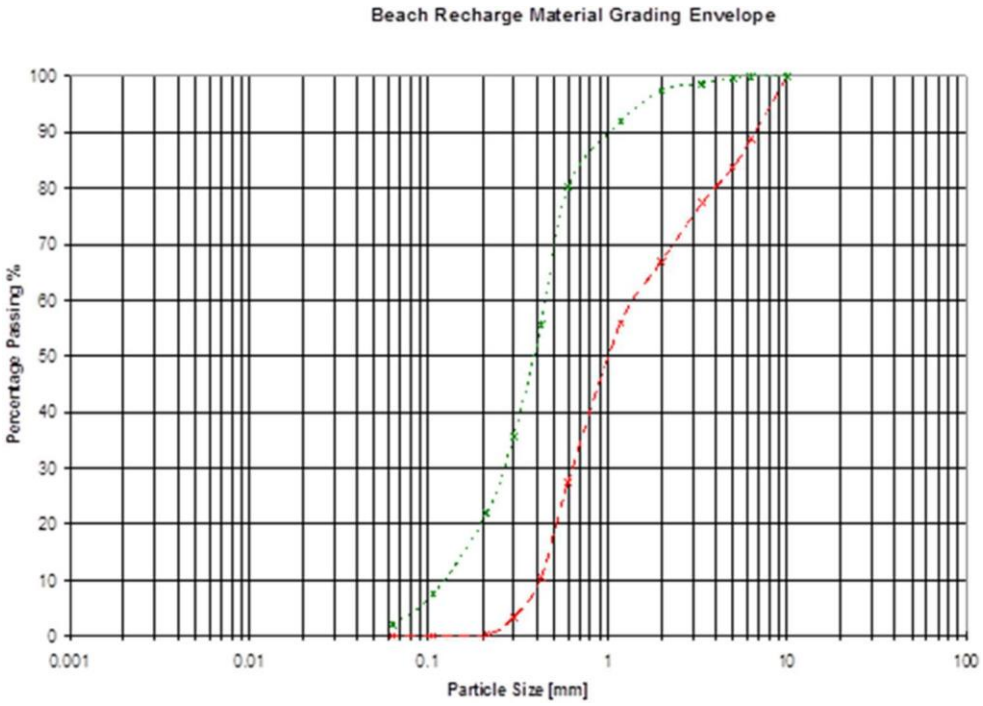
- An Area of Occupation is accepted as complete by the *Supervisor* if the requirements of S2017 and S2018 are met.
- Sand is profiled as soon as reasonably possible after placing. With each request for issue of an Acceptance Certificate for a Segment of the *works*, the *Contractor* submits 'as built' drawings of the relevant Segment to the *Supervisor*. Provided there are no other reasons preventing acceptance, the Segment of works is accepted by the *Supervisor*
- Stockpiling of sand is not permitted on previously accepted lengths of beach.
- The *Contractor* determines pre-nourishment beach profiles above low water level through an 'in-survey' prior to nourishment. The pre-nourishment beach profiles are taken at 25 metre spacings in the Nourishment Areas and are measured at low water. The pre-nourishment beach profiles are provided to the *Supervisor* as early as reasonably practicable.
- Unless otherwise agreed between the *Contractor* and the *Supervisor*, the volumes of nourishment material required are estimated by the *Contractor* using the pre-nourishment in-survey beach profiles and the design profiles given in the drawings listed in Appendix 3. The volumes of nourishment material required are advised to the *Supervisor* as early as reasonably practicable.
- The volumes of sand required and placed are determined by the *Contractor* for each 100m length of beach and are advised to the *Supervisor* before nourishment of that length of beach commences. The *Contractor* proposes for acceptance by the *Supervisor* the volume of sand required for each 100m length of beach.

6. Testing of placed nourishment material

- At 100 metre intervals along the beach the placed sand is sampled at the top of the nourished area of beach and at one-third and two-thirds the distance to the water's edge.
- Sampling is undertaken at low water and at each location the *Contractor* takes samples at a depth of between 500mm and 1000mm from the surface of placed material. The samples are representative of the material placed on the beach at each location.
- Each sample weighs 5kg and samples for each location are thoroughly mixed to provide one representative sample and recorded.
- The mixed samples are analysed to determine the particle size distribution in accordance with clause 9.2. BS 1377 Part 2 1990. Silt particles are expressed as a percentage of the total.

7. Beach nourishment grading envelope

The graph shows the upper and lower limits.



8. Beach nourishment grading table

Sample Size	Upper Limit	Lower Limit
[mm]	% passing	% passing
10	100	100
6.3	88.8	99.9
5	83.8	99.6
3.35	77.3	98.7
2	66.9	97.4
1.18	55.9	92
0.8	40.0	86.5
0.6	27.5	80.3
0.425	10.5	55.6
0.3	3.4	35.7
0.212	0.3	22
0.106	0	7.5
0.063	0	2

Appendix 1 Parent Company Guarantee pro-forma

Appendix 2 BIM Protocols

The *Contractor* shall adhere to the Environment Agency's Exchange Information Requirements (EIR) framework level minimum technical requirements.

All *Client* issued information referenced within the Information Delivery Plan (IDP) requires verifying by the *Contractor* unless it is referenced elsewhere within the Scope.

The *Contractor* shall register for an Asite Account and request access to the project workspace to view the IDP and update to create the MIDP.

Guidance on the IDP can be found here

Create the IDP on Asite and embed a PDF version as Appendix 1.

https://www.asite.com/login-home

Appendix 3 Drawings

Appendix 4 MMO License

See zip file

Appendix 5 Visualisation Scope

Guidance on visualisation can be found here

A tool to aide in the identification and scoping of visualisation can be found in knowledge management https://adoddleak.asite.com/lnk/5A95rLxSkL7gEpunXgb. Create a scope of visualisation requirements if needed and embed a PDF output here as Appendix 3.

Visualisation e-learning can be found on learning zone. Search visualisation.