

CABINET MEETING – 14 SEPTEMBER 2021

EXECUTIVE SUMMARY SHEET – PART I

Title of Report:

PROCUREMENT OF ROCK ARMOUR FOR SEA DEFENCE STRUCTURES LOCATED WITHIN STRATEGY FRONTAGE 3 IN THE PORT OF SUNDERLAND AND APPOINTMENT OF CONTRACTOR FOR INSTALLATION OF ROCK ARMOUR

Author(s):

Report of the Executive Director of City Development

Purpose of Report:

The purpose of this report is to seek approval for:

- (i) the procurement of rock armour through open tender for Strategy Frontage 3 (SF3) during the financial year 2021/22 and
- (ii) appointment of a contractor through the NEPO 211 Civil Engineering and Infrastructure framework for the installation of rock armour to Stonehill Wall and Hendon Foreshore Barrier sea defence structures located along SF3,

as part of the ongoing repairs and improvements to the sea defence structures located along SF3 within the Port of Sunderland, with the works at Stonehill Wall commencing during the financial year 2021/22 and Hendon Foreshore Barrier during 2022/23.

Description of Decision:

Cabinet is recommended to:

- (i) Authorise the Executive Director of City Development, in consultation with the Dynamic City Portfolio Holder and the Executive Director of Corporate Services, to take all necessary steps to procure the required quantity of rock armour through open tender, together with the appointment of a contractor to install the rock armour using the NEPO 211 Civil Engineering and Infrastructure framework.
- (ii) Approve the funding arrangements for delivery of the proposed works.

Is the decision consistent with the Budget/Policy Framework? **Yes**

If not, Council approval is required to change the Budget/Policy Framework

Suggested reason(s) for Decision:

By undertaking the procurement and installation of rock armour to both locations within SF3, the lifespan of each structure will be extended, the functionality of the port will be maintained and Hudson Dock will continue to be protected.

Alternative options to be considered and recommended to be rejected:

No alternatives are submitted for Cabinet consideration as the works are effectively an extension of the existing rock revetment located at Stonehill Wall and an increase in height to the existing rock revetment located at Hendon Foreshore Barrier. It is essential that the proposed repair works are carried out for the reasons stated in this report.

Impacts analysed;

Equality ☐ No **Privacy** ☐ No **Sustainability** ☐ Yes **Crime and Disorder** ☐ No

Is the Decision consistent with the Council's co-operative values? **Yes**

Is this a "Key Decision" as defined in the Constitution? **Yes**

Is it included in the 28 day Notice of Decisions? **Yes**

**PROCUREMENT OF ROCK ARMOUR FOR SEA DEFENCE STRUCTURES LOCATED
WITHIN STRATEGY FRONTAGE 3 IN THE PORT OF SUNDERLAND AND
APPOINTMENT OF CONTRACTOR FOR INSTALLATION OF ROCK ARMOUR**

Report of the Executive Director of City Development

1.0 Purpose of the Report

1.1 The purpose of this report is to seek approval for:

- (i) the procurement of rock armour through open tender for Strategy Frontage 3 (SF3) during the financial year 2021/22 and
- (ii) appointment of a contractor through the NEPO 211 Civil Engineering and Infrastructure framework for the installation of rock armour to the Stonehill Wall and Hendon Foreshore Barrier sea defence structures located along SF3,

as part of the ongoing repairs and improvements to the sea defence structures located along SF3 within the Port of Sunderland, with the works at Stonehill Wall commencing during the financial year 2021/22 and Hendon Foreshore Barrier during 2022/23.

2.0 Description of Decision

2.1 Cabinet is recommended to:

- (i) Authorise the Executive Director of City Development, in consultation with the Dynamic City Portfolio Holder and the Executive Director of Corporate Services, to take all necessary steps to procure the required quantity of rock armour through open tender, together with the appointment of a contractor to install the rock armour using the NEPO 211 Civil Engineering and Infrastructure framework.
- (ii) Approve the funding arrangements for delivery of the proposed works.

3.0 Introduction

3.1 Background

Stonehill Wall and Hendon Foreshore Barrier are located within the Council's coastal area designated as Strategy Frontage 3 (SF3) which incorporates the eastern and southern frontage of the Port of Sunderland, starting at the New South Pier and extending to Hendon Sea Wall. SF3 falls under Management Area (08) and includes Policy Unit (8.1) Harbour East Bay and Policy Unit (8.2) Harbour South Face, as referenced in the Shoreline Management Plan. These structures form part of the Port of Sunderland's coastal defences, and hence protect substantial commercial assets within the Port, including Hudson Dock. These include the marine engineering facilities of UK Docks (based at Young's Quay); George Clark Engineering Works, which stores coal/coke, Tradebe Solvent Recycling Facility, Northumbrian Roads storage facility, Northumbrian Water's treatment works and the new Enterprise Zone (EZ) development on the East Shore.

Stonehill Wall, which is located directly south of the New South Pier, was constructed circa 1900 as part of the development of the New South Pier and is approximately 240m long and 4.6m high. It is a reinforced concrete, granite faced gravity retaining structure founded off bedrock.

During early March 2018 the coastline of Sunderland was subject to the effects of Storm Emma and subsequent storm events which brought severe, adverse weather to the region in the form of snow and high winds. This resulted in some of Sunderland's coastal defences sustaining significant damage, including Stonehill Wall. Since the storms the Council have reconstructed the damaged deck area to Stonehill Wall.

Hendon Foreshore Barrier, which is located immediately in front of Northumbrian Water's treatment works, was constructed circa 1930, this structure is 5m in height and comprises approximately 200m of concrete wall fronted by a rock revetment. This structure is in a poor state of repair. The Council is developing plans to improve the existing defence, which, in part, involves the installation of additional rock armour.

The procurement and installation of rock armour to Stonehill Wall and Hendon Foreshore Barrier will help prolong the lifespan of each structure and continue to help protect the integrity and functionality of Hudson Dock and the adjacent Enterprise Zone areas, thereby supporting Sunderland's economic growth and City Plan objectives, and contributing positively to the Sunderland Healthy City Plan.

3.2 Proposals

The works to Stonehill Wall requires the procurement of 18,900 tonnes of rock armour of varying weight ranges between 1T-3T and 6T-10T. As part of the supply contract the rock armour will be temporarily stored at Greenwell's Quay. Following this the Council will then procure the services of a contractor to install the rock armour. This will involve the construction of a 215m long rock revetment in front of Stonehill Wall.

The works to Hendon Foreshore Barrier requires the procurement of 8,000 tonnes of 3-6T rock armour. As part of the supply contract the rock armour will be temporarily stored at Greenwell's Quay. Following this the Council will then procure the services of a contractor to install the rock armour. This will involve the construction of a 175m long rock revetment.

All rock armour is to be supplied in accordance with BS EN 138383 (2002).

Two options were available regarding the placement of the rock armour:

- (i) Delivery and placement of the rock armour from the water using a combination of sea vessels, barges and foreshore-based plant or,
- (ii) Delivery to a temporary storage area within the port and installation from land

Due to the risks associated with placing the rock armour from the water, which includes the risk associated with the impacts of weather on the sea state and tidal conditions, a land-based placement of the rock armour would provide a greater degree of cost certainty.

Both options above require the delivery of the rock armour direct from the quarry to the supplier's port facility, then via sea to the Port of Sunderland, all involving minimal overland transport. In comparison, getting the rock armour delivered from inland quarries (located within the UK) via the road network, which would involve multiple deliveries utilising articulated trucks with limited carrying capacity, was considered to have a greater, detrimental environmental impact, not just in terms of the carbon footprint but also in the disruption and nuisance caused to road network users, residents and businesses alike.

4.0 Costs Estimates & Timescales

4.1 Procurement and Timescales

It is anticipated that subject to Cabinet approval procurement of the rock armour could commence in September 2021 with delivery of the material anticipated to be no later than May 2022. Due to the speciality of the rock armour product and the limited supply chain it is proposed that the supplier is procured through open tender.

Procuring the services of a contractor using the NEPO 211 Civil Engineering and Infrastructure framework to undertake the installation of the rock armour could commence during 2021/22 and subject to the statutory consultee applications being finalised, construction activities would commence around May 2022 for Stonehill Wall and sometime during 2022/23 for Hendon Foreshore Barrier. The duration of each scheme is estimated as 6 weeks.

4.2 Cost estimates

Due to the specification of the rock armour this is considered a specialist material in terms of sourcing and transportation. In order to inform the cost estimate the Council entered dialogue with potential suppliers located both in the UK and Europe to develop an understanding of the processes involved in the delivery of the material and their associated costs.

Following this consultation, the estimated cost of the works to Stonehill Wall and Hendon Foreshore Barrier including port dues and a project contingency is £2.42M. The risk contingency is included to allow for potential delays to the delivery, weather delays and potential increases in the cost of raw materials.

It should be noted that currently the construction industry is experiencing significant increases in the cost of raw materials as detailed in the recent *Monthly Statistics of Building Materials and Components June 2021* report. Any delay to procuring the rock armour may lead to significant increased costs.

5.0 Reasons for the Decision

By undertaking the procurement and installation of rock armour to both locations within SF3, the lifespan of each structure will be extended, the functionality of the port will be maintained and Hudson Dock will continue to be protected.

6.0 Alternative Options

No alternatives are submitted for Cabinet consideration as the works are effectively an extension of the existing rock revetment located at Stonehill Wall and an increase in height to the existing rock revetment located at Hendon Foreshore Barrier. It is essential that the proposed repair works are carried out for the reasons stated in this report.

7.0 Relevant Considerations/Consultations

Financial Implications –

- (a) **Financial Implications** – As set out in paragraph 4.2, the cost estimate for the works to Stonehill Wall and Hendon Foreshore Barrier including port dues and a project contingency is £2.42M.

Provision for the cost of these works is included within the allocation for Coastal Defences - Strategic Frontage 3 project within the current capital programme.

- (b) **Risk Analysis** – Undertaking these works has associated risks, which primarily arise through the supply of the rock armour. The following are considered as the main risks:

- (i) *Price fluctuations due to Inflation* – increase in cost of raw materials
- (ii) *Weather risk* – a 10% risk contingency has been allowed for in the supply of the rock armour due to weather delays. Depending on the prevailing weather conditions the outturn costs due to any delay could be significantly more.

- (c) **Legal Implications**

The Head of Law and Governance has been consulted in relation to the proposals and her comments have been incorporated in this report. The procurement process for the works will be carried out in accordance with the Council's Procurement Procedure Rules and public procurement law.

- (d) **Procurement Implications**

The Council's Corporate Procurement team have been consulted in relation to this report. It is proposed that a contract for the procurement of the rock armour is to be awarded by way of open tender.

The procurement of the services of the contractor will be via the NEPO 211 Civil Engineering and Infrastructure framework.

9.0 Impact Analysis

- (a) **Equalities** – No equality analysis has been undertaken. The proposals are based on reducing the risk of further damage to the structures in question and will not have a disproportionate impact on any protected characteristics.

- (b) **Privacy Impact Assessment (PIA)** – There are no privacy impacts identified as part of the strategy.
- (c) **Sustainability** – A Sustainability Impact Filter has been produced. The score was less than the 125 threshold and therefore no Sustainability Impact Appraisal.
- (d) **Reduction of Crime and Disorder – Community Cohesion / Social Inclusion** – The proposals has no crime and disorder impacts.

10.0 Other Relevant Considerations

10.1 Not applicable.

11.0 List of Appendices

11.1 Not applicable.

12.0 Background Papers

12.1 Not applicable.

