



Skerries Harbour – Sheet Pile Wall Replacement

Planning Report

Report No. CM1400-MA-RP-004

04 March 2024

Revision 02

**Comhairle Contae
Fhine Gall**
Fingal County
Council





Document Control

Project: Skerries Harbour – Sheet Pile Wall Replacement

Document: Planning Report

Client: Fingal County Council

Report Number: CM1400-MA-RP-004

Document Checking:

Revision	Revision/ Review Date	Details of Issue	Authorised		
			Prepared By	Checked By	Approved By
00	24 January 2024	For Information	NG / DOB	POC	SG
01	16 February 2024	For Information	NG / DOB	POC	SG
02	04 March 2024	For Planning	NG / DOB	POC	SG

Disclaimer: Please note that this report is based on specific information, instructions, and information from our Client and should not be relied upon by third parties.



Contents

List of Figures	3
1 Introduction.....	1
2 Site Location, Context and Background	2
2.1 Site Location.....	2
2.2 Background.....	2
2.3 Context	3
3 Requirement for the Development.....	5
3.1 Overview	5
3.2 Project Justification.....	5
4 Development Description	7
4.1 New Sheet Pile Wall.....	7
4.2 Lighthouse.....	8
4.3 New Seawall.....	8
4.4 Improved Pier Furniture	9
4.5 Services/Utilities.....	9
4.5.1 Water	9
4.5.2 Electricity.....	9
4.5.3 Lighting.....	10
4.5.4 Emergency Pedestals.....	10
4.6 Security.....	10
4.7 CCTV	10
4.8 Waste Disposal	11
5 Construction Description	12
6 Strategic and Statutory Planning Policy Context.....	13
6.1 Planning Provisions and Policies	13
6.2 National Planning Policy Framework (2023)	13
6.3 Regional Spatial and Economic Strategy (2023).....	14
6.4 Skerries Development Plan (2017).....	14
6.5 Fingal County Development Plan (2023 – 2029).....	14
6.6 National Heritage Policy (2022).....	16
6.6.1 Theme 1: Communities and Heritage.....	16
6.6.2 Theme 2: Leadership and Heritage	16
6.7 National Marine Planning Framework (NMPF) (2021).....	16



7	Planning and Environmental Issues and Assessments	18
7.1	Planning Route Consent.....	18
7.2	Pre-Planning Consultation.....	18
7.2.1	Fingal County Council.....	18
7.2.2	Prescribed Bodies / Other Stakeholders.....	19
7.2.3	Public Consultation.....	19
7.3	Content of the Application	19
7.3.1	Environmental Impact Assessment (EIA) Requirements	19
7.4	Supporting Information for Screening Appropriate Assessment (SISAA) Requirements.....	20
7.4.1	Appropriate Assessment Screening	20
7.4.2	Natura Impact Statement (NIS).....	21
7.5	Specialist Reports.....	22
7.5.1	Underwater Archaeology Impact Assessment (UAIA).....	22
7.6	Planning Policy Statement.....	22
7.7	Land and Visual Impact	22
7.8	Access and Traffic	23
7.9	Waste, Noise and Dust	23
7.10	Water Usage.....	23
8	Conclusion.....	24
9	References.....	25
	Appendix A. Visual Inspection Photos.....	A
	Appendix B. Outline Construction Method Statement.....	B
	Appendix C. Photomontages	C
	Appendix D. Drawings.....	D
	Appendix E. Underwater Archaeology Impact Assessment.....	E

List of Figures

Figure 2-1: Skerries Harbour Location (Google Earth Pro).....	2
Figure 2-2: Skerries Harbour Site Layout	3
Figure 2-3: Photo of Sheet pile Corrosion Circa 2005 (source eOcenic [1]).....	3
Figure 2-4: Photo of Sheet Pile Corrosion.....	4
Figure 4-1: Sketch of Encapsulation Sheet Pile.....	7
Figure 4-2: Photomontages of Proposed Development.....	8
Figure 7-1: Location and extent of the North-East Irish Sea SPA	21

1 Introduction

Planning permission is sought by Fingal County Council (FCC) for the development of a new sheet pile wall in Skerries Harbour, Fingal, Co Dublin, to replace the existing sheet pile wall, which is currently condemned due to excessive damage.

This Planning Report outlines the details of the proposed development and its planning context and presents a planning assessment of the development on this basis. The report should be read in conjunction with the planning application drawings and various specialist environmental reports also submitted with this application.

Fingal County Council fully own Skerries Harbour, which was transferred to the Council with effect from the 30th of June 2004 SI 409/2004 – Harbours Act 1996 (Section 88 (4)) Commencement Order 2004 refers. The applicant, therefore, has full control and ability to implement the proposed works at Skerries Harbour following receipt of planning permission from An B An Bord Pleanála (ABP) and foreshore consent from the Department of Agriculture, Food and the Marine (DAFM).

This Order states that “On the commencement of this subsection, there shall stand transferred to Fingal County Council from the Dublin Port and Docks Board, or, if the relevant vesting day is prior to such commencement, from Dublin Port Company, the following harbours, namely, Skerries Harbour and Balbriggan Harbour together with all the property, rights and liabilities of the said Board or company, as the case may be, connected with each of the said harbours.”

This report aims to provide ABP with a comprehensive description of the proposed development and all considerations to support the review.

This Planning Report is set out as follows:

Section 1 – Introduction and Context

Section 2 – Site Location, Context and Background

Section 3 – Requirement for the Development

Section 4 – Development Description

Section 5 – Construction Description

Section 6 – Strategic and Statutory Planning Context

Section 7 – Planning and Environmental Issues and Assessment

Section 8 – Conclusion

2 Site Location, Context and Background

2.1 Site Location

Skerries Harbour is located on the east coast of Ireland, north of Dublin, as shown in Figure 2-1 below.



Figure 2-1: Skerries Harbour Location (Google Earth Pro)

2.2 Background

Skerries Harbour, originally constructed as a masonry pier in the 18th century, is approximately 70 m in length and 5 m in width and is listed on the Record of Protected Structures (RPS) with reference No.0183. The harbour was extended with a 60m sheet pile wall, as shown in Figure 2-2.



Figure 2-2: Skerries Harbour Site Layout

2.3 Context

The sheet-piled section of the pier has been in poor condition since at least 2005, with visible accelerated corrosion and some sections of the out-pan completely removed, exposing the fill behind (see Figure 2-4). Remediation efforts included installing covering plates and old tyres for protection against vessel berthing.



Figure 2-3: Photo of Sheet pile Corrosion Circa 2005 (source eOcenic [1])

In more recent times, MWP conducted a Structural Assessment [2], including:

- Visual inspection in 2019.
- A Core Hole Investigation in 2021 by Norfolk Marine [3], revealed localised voiding under the pier.

- Dive surveys in 2020 and 2021 by Irish Sea Contractors and Norfolk Marine, respectively, recording the condition of the sheet piles and measuring voids.
- Underwater Dive Inspection in 2021 by Norfolk Marine [4], measuring steel thickness in sheet pile out-pans, revealed significant thickness loss, particularly between bed level and MLWS, attributed to Microbial Induced Corrosion (MIC), was found, posing a risk of sudden structural failure under external loading.

Based on this information, MWP developed a structural-geotechnical model indicating a high probability of structural failure due to external forces. Despite withstanding recent storms, ongoing degradation and variable loading led to the recommendation to FCC to close the sheet pile in March 2023. The closure has impacted fishing operations and leisure activities due to reduced berthing space, causing overcrowding on the masonry section of the pier.

As part of this development, Ayesa has been appointed by the FCC to manage a monitoring campaign on the sheet-piled section of the harbour. The monitoring campaign commenced on the 4th of August, 2023 and is scheduled for 12 months, ending in August 2024. This monitoring campaign includes control point surveys, 1D and 3D monitoring, and tilt monitoring, establishing movement patterns or anomalies of the pier structure. In addition to this movement monitoring, periodic visual inspections of the structure will be conducted throughout the 12 months, with inspections performed in August 2023 and January 2024.

These examinations revealed several areas of concern, with examples in Figure 2-4. These images depict instances where the pier end has undergone complete corrosion, resulting in a notable void in the sheet, allowing the fill material to wash out. A more comprehensive indication of the severity, volume and size of the voids, along with other degradation, is enclosed in Appendix A. Following these visual inspections and initial movement monitoring findings, Ayesa's evaluation concurs with MWP's determination regarding the requirement for closure, highlighting the need for a comprehensive development approach for the pier structure.



Figure 2-4: Photo of Sheet Pile Corrosion

3 Requirement for the Development

3.1 Overview

The sheet pile section of the harbour was constructed in 1968 and is now beyond its design life. Unprotected against corrosive effects from substantial tidal variations in the site's environmental conditions, the sheet pile wall has undergone significant degradation. This deterioration was confirmed by the "Structural Assessment Skerries Pier" conducted by MWP [2], concluding that the sheet-piled segment of the pier required to be closed due to structural concerns.

However, this closure should not be viewed as the solution to a more significant problem regarding the structural stability of the pier. Neglecting development will pose a substantial risk of collapse, especially during storms or adverse conditions in the coming years, as detailed in the MWP Structural Assessment [2]. A structural collapse would present a significant safety hazard to fishermen, sailing boat operators, and anyone using the pier. Such a collapse could disrupt fishing and sailing activities, impacting the local economy and, in the worst-case scenario, may result in loss of life.

The pier's closure should be considered a temporary measure that overlooks current challenges, fails to tackle environmental damage to the pier's integrity, and does little to reduce the risk of structural failure. However, it can be seen as a short-term solution until a new, safe structure is established. It is essential to take proactive steps to confront existing challenges and introduce a suitable replacement structure to guarantee the pier's stability, operational safety, and effectiveness in the future. Installing a new sheet pile wall will offer a secure, advanced facility, ensuring the harbour's continued functionality for future use.

During the preliminary stage of this development, Ayesa prepared an extensive Options Appraisal Report [5] evaluating various remedial and replacement options for the sheet pile pier at Skerries Harbour. The Encapsulation Sheet Pile option emerged as the favoured solution advanced to the planning and detailed design stages.

3.2 Project Justification

Acknowledging the imminent dangers of the current sheet-piled section, including its corrosion-induced structural deterioration and the risk of failure, the predominant justification for this development concerns the replacement to ensure safe operations in the harbour.

The anticipated benefits associated with the proposed development include:

Increased Safety: The proposed enhancements will eliminate safety hazards associated with the current structure by providing a new structure, ensuring a secure and safe berthing facility for fishermen, sailing boat operators, and other Pier users.

Enhanced Functionality: The upgraded sheet pile wall will expand its capacity, allowing it to accommodate a broader range of maritime activities and functions.

Controlled Access: Implementing access control measures will limit access to authorised personnel, promoting safety and preventing unauthorised usage.

Extended Service Life: The new sheet pile wall is designed with a minimum lifespan of 75 years, offering a durable, long-term solution to meet the community's maritime needs.

Future Proofing the Harbour: Implementing the proposed development will facilitate the enhancement and design of the pier to withstand future challenges, including anticipated sea level rise. The upgraded structure aims to effectively combat and provide shelter against future storm surges while offering increased resistance to corrosion at the site.

Operational Efficiency: The outdated infrastructure can hinder the efficiency of maritime operations, affecting activities such as vessel berthing, cargo handling, and passenger services. The update aims to streamline these operations, optimising workflow and facilitating a smoother and more efficient harbour environment.

Technological Integration: Modernising the harbour with technologies to improve services, communication, and security. Integrating smart technologies enhances overall functionality and contributes to a safer and more technologically advanced harbour.

Economic Growth and Competitiveness: A well-maintained and efficiently operated harbour is crucial for regional economic growth and competitiveness. The overall update aims to attract investments, stimulate trade, and position the harbour as a key player in the national maritime network, contributing to the economic development of the surrounding region.

Sustainable Service Provision: Integrating water and electrical infrastructure into service pedestals, complete with meters and valves, and implementing a pay-as-you-go system supports the client to control the services efficiently while encouraging responsible usage and minimising overconsumption and waste.

In conjunction with the benefits associated with the development above, the proposed development aligns with several national, regional and local policies, frameworks and strategies. A list of the policies is listed below, and a detailed description is provided in Section 6:

- National Planning Policy Framework (2023)
- Regional Spatial and Economic Strategy (2023)
- Fingal County Development Plan (2023 – 2029)
- National Heritage Policy (2022)
- National Marine Planning Framework (NMPF) (2021)

4 Development Description

4.1 New Sheet Pile Wall

Ayesa undertook an options appraisal [5] to identify the preferred quay wall type that would meet the harbour's functional requirements.

Several options were discarded due to inapplicability, while others progressed to a multi-criteria analysis (MCA), where they were evaluated based on various client-agreed criteria. The encapsulation sheet pile was selected due to its superior design life compared to other alternatives.

The proposed development involves the installation of a sheet pile wall on all sides of the be positioned with a 2-3 meter offset to replace the existing structure. The development will be built around the old pier, improving the deck levels and seawall height, providing a clean berthing face and other attributes to the future proof of the structure and, ultimately, the harbour. To further enhance the newly installed pile, they will be encased with a concrete layer, as depicted in Figure 4-1. This concrete encasement is designed to enhance resistance against corrosion and degradation, thereby extending the overall service life of the sheet pile wall and minimising the need for frequent maintenance.

The construction approach, featuring an offset installation, is intentionally planned to significantly reduce the extent and consequences of any necessary demolition. Additionally, this method will decrease the demand for new fill material, as the original structure will ultimately serve as fill material. Another beneficial aspect of modifying this existing structure is the limited disruption to coastline views, as the alterations are subtle and come with additional benefits, as seen in Figure 4-2.

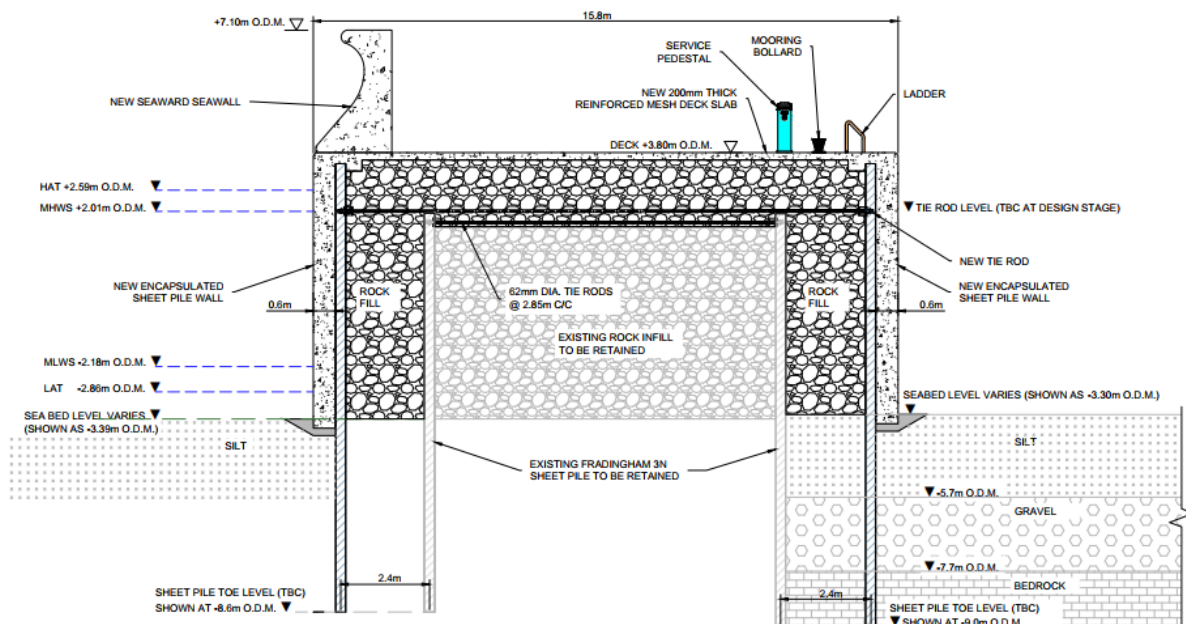


Figure 4-1: Sketch of Encapsulation Sheet Pile

The concrete façade offers two primary benefits. Firstly, it enhances the aesthetic appearance of the wall by providing a clean, uniform, and smooth surface. This aesthetic improvement enhances the visual appeal and simplifies maintenance efforts. Secondly, the flat façade

improves berthing capabilities by reducing the risk of vessels encountering snags or sustaining damage during docking or berthing operations. Furthermore, the flat façade permits mounting fenders, reducing/controlling berthing forces on the Pier if necessary. This improvement enhances safety measures and operational efficiency, resulting in smoother maritime activities and minimising the potential for accidents or disruptions.

Photomontages of the proposed encapsulation sheet pile are provided in Figure 4-2 below. Additional photomontages are provided in Appendix C. These photomontages are not geo-referenced renderings but accurately represent the proposed works.

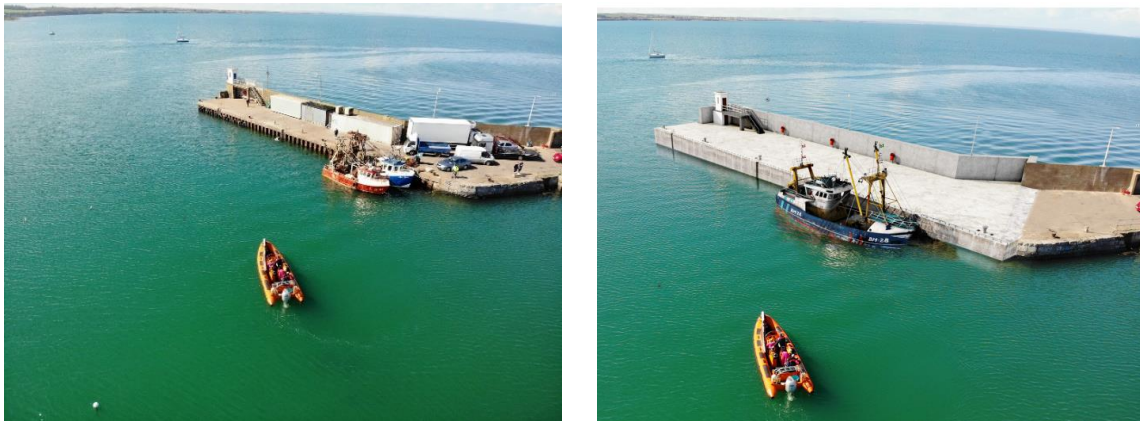


Figure 4-2: Photomontages of Proposed Development

The concrete façade provides an enhanced resistance to deterioration and degradation. The impermeable nature of the concrete barrier minimises the impact of external elements on the sheet pile structure, thereby preserving its integrity over an extended period and reducing maintenance requirements.

The proposed development provides long-term cost savings and operational efficiency. The extended design life and reduced maintenance requirements contribute to the overall sustainability of the solution. With the inclusion of the concrete façade, the structure will achieve a design life between 75 years with added redundancy to the design life, given that the façade can be seen as sacrificial.

4.2 Lighthouse

The preservation of the existing lighthouse stands as a pivotal element within the proposed development, driven by a commitment to maintaining the aesthetic and historical integrity of the old Harbour. Beyond historical considerations, the lighthouse also plays a crucial role in navigation.

4.3 New Seawall

Replacing the current seawall is a vital aspect of the proposed development, driven by the priority to contend with rising sea levels and the heightened impact of storms. The decision to elevate the seawall is a proactive measure, strategically addressing the anticipated challenges arising from climate change. This deliberate increase in the seawall's height ensures ongoing

functionality by mitigating the risk of wave overtopping, ultimately providing a safer harbour environment for vessels in the present and future.

This structural enhancement will incorporate an enhanced seawall section to reduce the potential for overtopping. This design feature adds an extra layer of resilience, effectively minimising the impact of waves and bolstering the overall protective capacity of the seawall.

4.4 Improved Pier Furniture

A reinforced concrete capping beam and deck will be constructed on the topside and integrated into the current masonry pier along the new sheet pile wall. The pier will be furnished with state-of-the-art ladders, bollards, and mooring rings. The quantity and spacing of each furniture element will be determined during the detailed design phase in accordance with international design codes and standards.

4.5 Services/Utilities

Power and freshwater utilities for the proposed development will connect to the existing water and power services on the pier. Power and freshwater utilities shall be provided via integrated utility pedestals. Incorporating water and electrical infrastructure into service pedestals equipped with meters and valves and establishing a pay-as-you-go system promoting responsible use and reducing overconsumption and waste.

Each utility supply line and pedestal will be installed so as not to obstruct the use of the pier. All utilities will be designed and specified in accordance with international design codes and standards.

4.5.1 Water

Potable running water shall be provided from the service pedestal with spacing specified following international design codes and standards.

Supply lines are designed to provide adequate flow without significant pressure loss when 25% of outlets are used.

A main isolation valve shall be installed in an accessible location to control the water supply to the entire system. Secondary isolation valves shall be installed as deemed necessary by the Contractor to allow for maintenance and drain-down of each system. All outlets shall be fitted with non-return valves.

4.5.2 Electricity

The design, provision, and installation of electrical services for the development shall comply with the national electrical and fire standards, codes, and guidelines. All equipment and wiring will be of marine standard.

Power outlets will be a 2-phase 220V and shall adhere to the following list of standards is non-exhaustive, recommended for use by PIANC 149 (Part IV):

- IEC (International Electrotechnical Commission) Specification 60309;

- IEC Specification 60364-7-709;
- BS 7671;
- BS EN 60092;
- BS EN 60309 (Same as IEC 60309).

4.5.3 Lighting

Suitable lighting will be provided along the pier to allow safe use, day or night. Lights shall be designed not to impair the navigator's night vision. Lighting shall be designed to switch on automatically when natural light drops below a safe level. The lighting capacity shall be aligned with local standards and guidelines.

The proposed lighting will be finalised during the detailed design stage, subject to Irish Light's agreement.

4.5.4 Emergency Pedestals

Emergency and safety equipment should be provided pedestal as specified below or using a similar approved system. The Pedestals shall be as follows or similarly approved:

Pedestal Range: Triton Classic Pedestal (Emergency Pedestal) or similar.

These pedestals shall be integrated into the service pedestals for space optimisation along the pier edge or installed along the seawall. The quantity and spacing of the pedestals will be determined during the detailed design phase in accordance with international design codes and standards.

4.5.4.1 Lifebuoys

Lifebuoy rings shall be 750 mm in diameter and contained in a red-coloured sealed housing to protect against exposure to the element and shall have a 20 m floating line attached. The lifebuoy and housing shall be mounted on a galvanised steel or aluminium support stand with a minimum post diameter of 75 mm or 75 mm x 75 mm box section, coloured red with suitable maintenance-free coating, and securely fixed to the pontoon structure.

4.6 Security

High-security fencing and security gates are proposed at the upgraded pier entrance to prevent unauthorised persons from accessing.

4.7 CCTV

CCTV is not included in this project. However, ducting will be installed to accommodate the future installation of CCTV at various locations along the harbour.

4.8 Waste Disposal

Waste disposal at the pier will be facilitated through a purpose-designed and secure Waste Station strategically positioned at or near the harbour extension. The Waste Station will be designed to ensure efficient and controlled waste management at the designated location.

5 Construction Description

Considering the current poor structural condition of the sheet-piled section of the pier, the predicted construction methodology would implement a floating plant. However, the possibility of landside construction will only be explored if the Contractor can confirm that the loading on the sheet-piled section remains within safe structural limits to prevent collapse. To assess the pier's suitability for landside construction, a qualified structural engineer must conduct an evaluation, determining the safe working load of the deteriorated pier. Additionally, plate-bearing tests on the pier deck are essential to verify its loading capacity and the landside option's feasibility.

The general sequencing and approach to construction at the site are expected to be as set out below; however, the Contractor will determine the final details.

- Secure site boundaries with temporary fencing.
- Establish the compound at the end of the masonry section of the pier or the Contractor's preferred location. The finalised location is to be agreed upon between the client and the Contractor before construction.
- Installation of silt curtains surrounding the site.
- The existing seawall on the pier will be demolished to facilitate the construction process.
- Sheet piles will be driven into the seabed on either side of the existing pier using an excavator or crane fitted with a vibratory pile hammer (or similar).
- Trenches will be dug through the existing pier deck to facilitate the installation of the new tie-back system, which consists of tie-rods which connect the sheet pile walls on either side of the pier.
- The new pier section will be filled with a selected rock fill imported from commercial sources. Where possible, material reuse from the existing structure will be used to reduce waste and removal of material.
- Reinforced concrete encapsulation will be constructed around the new sheet piles. The encapsulation shuttering will extrude under the current seabed level to the determined scour depth for the site to ensure the fully reinforced concrete encapsulation of the sheet pile.
- A reinforced concrete capping beam and pier deck will be constructed on the sheet piles and selected rock fill. This will involve rebar cages, shuttering, and concrete casting.
- A reinforced concrete recurve seawall will be constructed on the new seaside capping beam. This will involve rebar cages, shuttering, and concrete casting.
- The pier furniture and services/utilities, such as lighting, drainage, and utilities, will be installed, and furniture, such as mooring bollards and ladders.
- Remove the site compound upon completion of the works.

Refer to the Outline Construction Method Statement provided in Appendix B.

6 Strategic and Statutory Planning Policy Context

6.1 Planning Provisions and Policies

The replacement of the sheet pile wall of Skerries Harbour is consistent with the “Harbour Area” zoning designation in the current Development Plan [6]. This designation allows for various maritime-related uses, including fishing and leisure craft berthing, marine-related businesses, and public access.

The proposed development satisfies the objectives of the Core Strategy of the Development Plan [6], which is specified in Section 10 (2A) of the Planning Act [7].

The proposed development is consistent with this requirement for the following reasons:

- Primarily, replacing the closed quay wall will restore the harbour facility, allowing it once again to serve the needs of fishermen and the sailing club as it did previously
- Enhancing the attractiveness of the harbour to residents, visitors and businesses, which could lead to an increase in population and employment in the area;
- Developing the operational capability has the potential to create new opportunities for commercial activities at the harbour, leading to the development of new retail space in the area ;

Overall, the proposed development is consistent with the Core Strategy of the Development Plan. It is a sustainable and resilient development that will better use existing infrastructure and create new opportunities for commercial and recreational activities in the Skerries area.

6.2 National Planning Policy Framework (2023)

National Planning Policy Framework [8] sets out the Government’s strategic vision for planning in Ireland. The following objectives are particularly relevant to the proposed development of Skerries Harbour:

- **Support the sustainable growth and development of the maritime economy** by improving the harbour’s facilities and capacity, making it more attractive to fishing vessels and sailing boats. This will help support the local fishing industry and attract more visitors to the area, boosting the local economy.
- **Invest in the seafood sector and Fishery Harbour Centres** by improving the facilities available to the local fishing industry. This will help make the harbour a more attractive base for fishing vessels, benefiting the local economy.
- **Ensure the sustainable management of Ireland’s coastal resources** by creating a more sheltered and protected harbour. This will help to protect the coastal environment and ensure its sustainable use for future generations.
- **Address the effects of climate change and coastal flooding** by making the harbour more resilient to the effects of climate change, such as sea level rise and storms, thus future-proofing the harbour, making it a more viable resource to the local area.

6.3 Regional Spatial and Economic Strategy (2023)

The proposed development is consistent with the policies of the Regional Spatial and Economic Strategy in Ireland [9] in several ways:

- **Support the maritime economy by enhancing the functionality and safety of Skerries Harbour as a vital piece of maritime infrastructure supporting** the local fishing and sailing community. This aligns with the national policy objective of supporting the sustainable growth and development of the maritime economy.
- **Development of fishery harbour centres** by improving the berthing facilities for fishing vessels, contributing to the continued investment in fishery harbour centres as outlined in the national policy objectives.
- **Regional and rural development** by enhancing the harbour’s capacity and functionality, contributing to the economic viability of rural coastal communities. Skerries Harbour is an important economic driver for the local community and surrounding areas.

6.4 Skerries Development Plan (2017)

The proposed development is consistent with objective 8 of the Skerries Development Plan [10], which requires the “preparation of an Urban Framework Plan to guide and inform future development of the harbour area incorporating mixed-use development including community/recreational and marina/water sports facilities”.

The proposed development to reinstate the functionality of the harbour will address the goals of improving berthing facilities for fishing vessels and sailing boats.

6.5 Fingal County Development Plan (2023 – 2029)

The town of Skerries is identified as “a Self-Sustaining Town” in the Fingal Development (FDP) [11], and the proposed development is consistent with the FDP’s through targeted investment. Self-sustaining towns, as defined in the plan, are towns with high population growth but a weak employment base, reliant on other areas for employment and/or services. Replacing the derelict seawall will enhance the town’s attractiveness as a destination and potential investment hub, thus contributing to its economic development and self-sufficiency.

By developing a new sheet pile quay wall, the facility will again be fully operational and attract more visitors and businesses, promoting economic activity and job creation. This, in turn, will strengthen the employment base in Skerries, making it less reliant on other areas for employment opportunities and contributing to its transition towards a more self-sufficient town by making fishing more viable in the harbour as the berthing area will be increased, providing more opportunities for local fishermen. Therefore, the development aligns with the plan’s focus on targeted “catch-up” investment to strengthen the employment base in self-sustaining towns.

In addition, replacing the pier is consistent with the following specific policies of the FDP:

- Policy CSP34: Replacing the pier will consolidate growth in Skerries by making it a more attractive place to live, work, and visit.

- Policy CSP35: Replacing the pier will protect the unique identity of Skerries by enhancing its existing amenities. The pier is a major tourist attraction and a significant part of the town's character. Upgrading it would make it even more attractive to visitors and residents and help to ensure that Skerries retains its unique identity.
- Policy CSP36: Replacing the pier will focus growth within the core of Skerries by making the town centre more attractive. This development would help prevent sprawl and ensure the town's sustainable growth.
- Policy CSP38: Replacing the pier will consolidate development and protect the unique identities of the settlements of Skerries by creating a more attractive and vibrant town centre. This development would help to ensure that these towns remain attractive places to live, work, and visit.

Furthermore, the replacement of the steel section of Skerries Harbour will ensure the following objectives of FDP:

- CSO51: Support the Growth of Self-Sustaining Towns by enhancing the tourism offer and facilities in the town, contributing to economic activity and meeting the needs of existing and future growth.
- CSO55: Development and Growth of Balbriggan and Skerries by supporting the promotion and facilitation of the development and growth of Skerries as a primary service, social, cultural, and local tourist centre.
- CSO57: Harbours, Beaches Seashores – Balbriggan, Skerries and Rush by preserving and improving access to harbours, beaches, and seashores in Skerries, contributing to the overall enhancement of the town's environment.
- Chapter 7, Section 7.5.1.4 of the FDP states that Skerries Harbour is a key asset for the local marine sector and that it is necessary to invest in the harbour to ensure its continued success. The passage also notes that the marine sector is strongly interrelated with tourism, manufacturing, and retail and that Skerries Harbour is a crucial part of this ecosystem.

The proposed development aligns with all three objectives outlined in the Marine policies and objectives of the FDP:

- Objective EEO4: Marine Sector, as it aligns to support the diverse nature of the marine sector in Fingal and identify sustainable growth opportunities. By replacing the pier, there is potential to enhance marine activities and engagement with relevant agencies, sectoral representatives, and local communities. This development aligns with the objective's emphasis on fostering partnerships to achieve sustainable growth in the marine sector while ensuring the protection of European sites.
- Objective EEO42: Marine Sectors Development and Environmental Issues. This objective emphasises the need for proposals associated with economic development in the marine sector to consider the sensitivities of Fingal's coastal locations. Therefore, any upgrades to Skerries Pier should be conscious of the environmental impact on the marine environment, ensuring that relevant environmental issues are appropriately considered.

6.6 National Heritage Policy (2022)

National Heritage Policy [12] sets out the Government’s policy for protecting and conserving the natural and built heritage. It includes several policies that are relevant to the subject site, including:

6.6.1 Theme 1: Communities and Heritage

Objective 1: Enhance support for local authorities and County/City Heritage Forums in community heritage engagement: The development will involve close collaboration with the Skerries Harbour Commissioners, Skerries Town Council, and other local stakeholders to ensure that the design and implementation of the development are consistent with the needs and aspirations of the local community.

Objective 6: Enhance physical and digital access to heritage in public and private ownership. The development will improve access to Skerries Harbour for fishing vessels, sailing boats, and the general public. The new sheet pile wall will also provide a safer and more accessible berthing area for fishing vessels, benefiting the local fishing community.

6.6.2 Theme 2: Leadership and Heritage

Objective 3: Ensure the conservation and presentation of our national heritage estate is appropriately resourced through increased capital investment over the lifetime of this plan. The development will provide much-needed capital investment to improve the condition of Skerries Harbour, a valuable piece of Ireland’s maritime heritage.

6.7 National Marine Planning Framework (NMPF) (2021)

The proposed development is consistent with the following Fisheries objectives and planning policies of the National Marine Planning Framework (NMPF) [13].

Objectives:

- Deliver a sustainable seafood sector by ensuring that the Skerries fishing fleet has access to a safe and modern facility, which will, in turn, help to support the sustainability of the seafood sector in the area.
- Promote a sustainable, profitable and self-reliant industry by making Skerries more attractive to new businesses and will help to create jobs in the seafood sector. This development will help to promote a sustainable, profitable, and self-reliant seafood industry in the area.
- Manage utilisation of sea fisheries resources by helping to ensure that the Skerries fishing fleet can access its fishing grounds sustainably.

Planning Policies:

- Fisheries Policy 1: The proposed development will not significantly impact access to existing fishing activities. It will improve access to existing fishing activities by making the harbour more modern and efficient.
- Fisheries Policy 2: The proposed development is committed to engaging with local fishing interests and other stakeholders at an early stage to discuss the development.

This development will help ensure that the development is designed to minimise any potential impacts on the fishing industry.

- Fisheries Policy 3: The proposed development will enhance the sustainability of the fisheries industry by making it more efficient and productive. This development will help to ensure that the industry can continue to provide food for the people of Ireland sustainably.
- Fisheries Policy 4: The proposed development will enable access to fishing activities by improving the harbour's safety and efficiency, making it more attractive to new businesses and will help to create jobs in the seafood sector.
- Fisheries Policy 5: The proposed development will not have a significant adverse impact on essential fish habitat.
- Fisheries Policy 6: The proposed development is committed to maintaining the minimum infrastructure required to support a viable fishing fleet. This expansion is because the harbour is an important asset to the fishing community in Skerries.

7 Planning and Environmental Issues and Assessments

7.1 Planning Route Consent

As per Part XAB of the Planning and Development Act 2000 [7], as inserted by Section 57 of the Planning and Development (Amendment) Act 2010 [14], FCC, as the Local Authority, proposes to carry out development *which has been carried out where an environmental impact assessment, a determination as to whether an environmental impact assessment is required, or an appropriate assessment, was or is required.*

Part XAB requires An Bord Pleanála to screen proposed developments for which applications are made to the Board or which are the subject of an appeal to determine if an appropriate assessment is required and to carry out the assessment where relevant.

Section 177AE of the Planning and Development Acts 2000 [7] states that *Local Authorities are required to make an application to An Bord Pleanála for any proposed development in their functional area or on the foreshore, where an appropriate assessment under the Habitats Directive is required.*

Therefore, the proposed development for Skerries Harbour falls under Section 177AE, which involves an application to An Bord Pleanála to approve a proposed development.

Whilst the Maritime Area Planning Act 2021 [15] has superseded the Foreshore Act, Section 15 (1B) of the Foreshore Act [16] remains in situ where appropriate. Since the proposed development falls within Section B, as stated below, then the appropriate authority to approach is the Minister for Agriculture, Food and the Marine (DAFM), and MARA does not have the power to consent to either Maritime Usage Licences or MACs in these instances.

15[1B.—In the Foreshore Acts 1933 to 2011 "appropriate Minister" means—

(a) concerning a fishery harbour centre, the Minister for Agriculture, Fisheries and Food,

(b) in relation to a function in respect of— (i) an activity which is wholly or primarily for the use, development or support of aquaculture or (ii) an activity which is wholly or primarily for the use, development or support of sea-fishing including the processing and sale of sea-fish and manufacture of products derived from sea-fish, the Minister for Agriculture, Fisheries and Food,

7.2 Pre-Planning Consultation

7.2.1 Fingal County Council

Pre-planning discussions were held with the Fingal County Council Planning Department in 2023 concerning the development proposals and the general content of the proposed development.

This consultation was led by the Planning Department of Fingal County Council, with input also from the Area Engineer. It was agreed that the development did not require an Environmental Impact Statement but would require a Natura Impact Statement (NIS) due to the works being undertaken in the SPA (North-West Irish Sea SPA 004236), which was

recently established in July 2023 along the coastline of Fingal County. The Planning Authority identified a requirement that the planning application be accompanied by several specialist reports and/or assessments and would clarify several matters concerning the proposals.

Fingal Planning Department also confirmed that the planning route would require An Bord Pleanála approval.

7.2.2 Prescribed Bodies / Other Stakeholders

Ayesa initially contacted DAFM on October 31, 2023, regarding acquiring a Foreshore Lease for upgrading Skerries Harbour. In response, DAFM stated that a Foreshore Lease is required for any harbour where more than 50% of the users are fishermen. Also, DAFM does not accept pre-applications, so Ayesa must submit a full application.

Ayesa approached An Bord Pleanála on November 13, 2023, to request a meeting to discuss Skerries development. An Bord Pleanála (ABP) responded to Ayesa's request for a meeting by informing them that section 177AE of the Planning and Development Act outlines all the application requirements and that meetings are not typically held for these applications. ABP also offered to answer any specific questions that Ayesa had about the requirements.

In a correspondence with ABP on November 29, 2023, ABP confirmed that a Maritime Area Consent (MAC) is not required for the development. Instead, a planning application will be submitted to ABP first, followed by a Foreshore application to DAFM.

7.2.3 Public Consultation

The Fingal Council arranged multiple meetings involving fishermen, sailing club users, and councillors to discuss matters concerning the pier prior to the closure of the sheet pile section in March of 2023. Subsequently, in July 2023, further discussions were held concerning the proposed new structure for the pier.

The options appraisal report for the development of Skerries Harbour is presently accessible for public consultation on the FCC website under the title "Options Assessment Report" (Fingal. ie).

7.3 Content of the Application

7.3.1 Environmental Impact Assessment (EIA) Requirements

The proposed development has been screened to determine whether an Environmental Impact Assessment (EIA) is required. The screening process involves reviewing the development against various criteria to assess its potential environmental impact.

Item 10 of Part 2 of Schedule 5 relates to Infrastructure Projects. Part (e) specifies the following class of development:

“New or extended harbours and port installations, including fishing harbours, not included in Part 1 of this Schedule, where the area, or additional area, of water, enclosed would be 20 hectares or more, or which would involve the reclamation of 5 hectares or more of land, or which would involve the construction of additional quays exceeding 500 metres in length.”

The proposed development includes the development of an existing sheet pile pier with a length of 60m and a width of 9m. In this regard, the development does not reach the mandatory threshold.

Item 12 of Part 2 of Schedule 5 relates to Infrastructure Projects. Part (b) specifies the following class of development:

“Sea water marinas where the number of berths would exceed 300 and freshwater marinas where the number of berths would exceed 100.”

The proposed development is not anticipated to increase the number of berths. In this regard, the development does not reach the mandatory threshold.

In summary, the development does not fall under any of the thresholds in Schedule 5 Part 1 for mandatory EIA, and it does not meet/exceed the thresholds for which it falls under in Schedule 5 Part 2. Therefore, it is considered that a mandatory EIA is not required and that it is a sub-threshold development.

The EIA screening assessment has been undertaken and enclosed in this planning application.

7.4 Supporting Information for Screening Appropriate Assessment (SISAA) Requirements

7.4.1 Appropriate Assessment Screening

Five Special Protection Areas (SPA) and two Special Areas of Conservation (SAC) are within 10 km of the Skerries Harbour. Figure 7-1 shows the location and extent of the North-East Irish Sea SPA, a new addition to the Natura 2000 sites roster. A screening for appropriate assessment was accordingly undertaken and is provided with the application documentation.

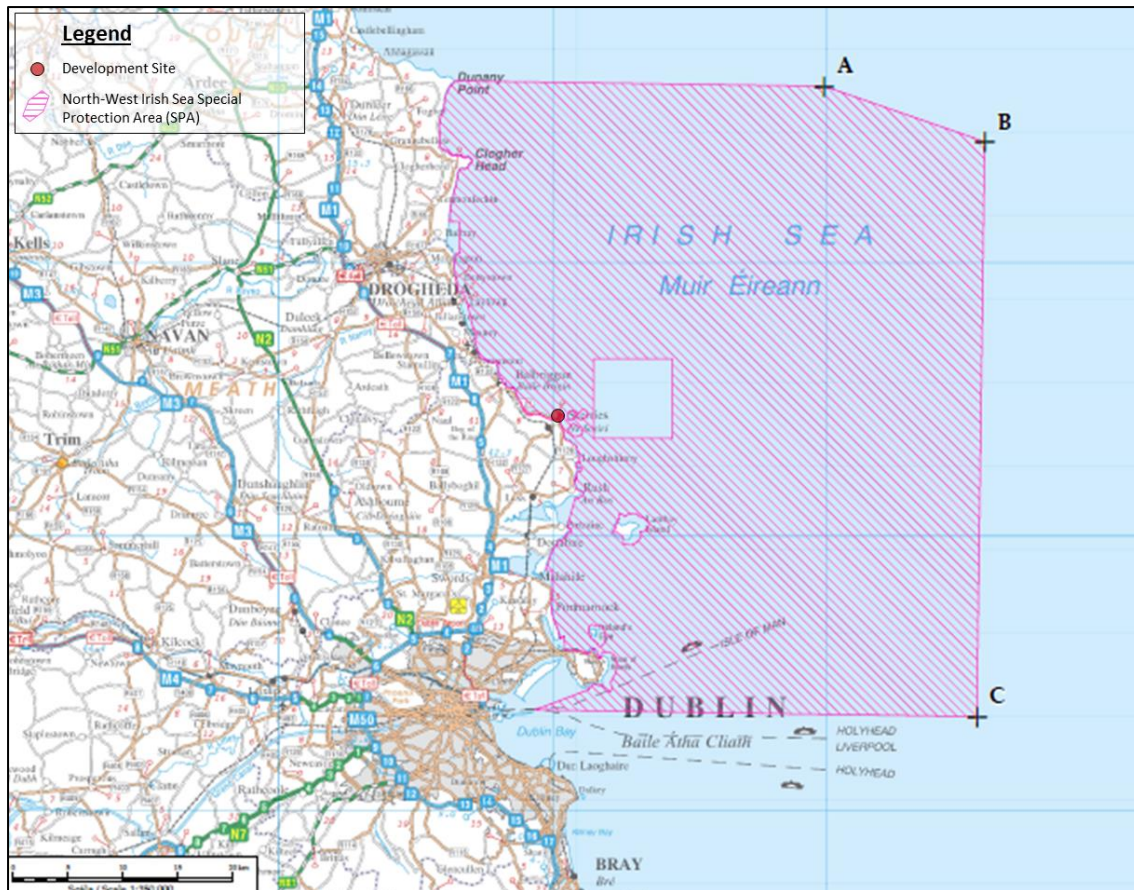


Figure 7-1: Location and extent of the North-East Irish Sea SPA

The screening assessment was completed in compliance with the relevant European Communities and national legislation and associated guidance.

From this screening exercise, it has been determined that significant effects are likely to arise on several European sites and/or on the conservation objectives of their Qualifying Interests/Special Conservation Interests as a result of the proposed works through surface water, land and air, and underwater emission pathways. Consequently, it is the opinion of the assessing ecologist that the development requires a Stage 2 Appropriate Assessment.

7.4.2 Natura Impact Statement (NIS)

Ayesa has prepared a Natura Impact Statement for the proposed development. Stage 2 of the NIS identifies any adverse impacts the plan or development might have on the integrity of relevant Natura 2000 Sites. As part of the assessment, a key consideration is ‘in combination’ effects with other plans or developments. Where adverse impacts are identified, mitigation measures can be proposed to avoid, reduce, or remedy any such negative impacts, and the plan or development should then be amended accordingly, thereby avoiding the need to progress to Stage 3.

The NIS has been completed in compliance with the relevant European and national guidelines. The potential impacts of the proposed development have been considered in the context of the European Sites potentially affected, their Qualifying Interests (QIs), Special Conservation Interests and Conservation Objectives. Robust and effective mitigation

measures have been proposed to avoid any impacts affecting marine water quality and QIs of the several nearby Natura 2000 sites.

In light of the mitigation measures proposed, and based on the best scientific knowledge available, it is concluded that there will be no significant adverse impacts on the integrity of nearby Natura 2000 sites, particularly the North Irish Sea SPA, Skerries Islands SPA, Rockabill SPA or Rockabill to Dalkey Island SAC, as a result of the proposed development.

The Natura Impact Statement accompanies the Skerries Harbour Planning Application.

7.5 Specialist Reports

7.5.1 Underwater Archaeology Impact Assessment (UAIA)

Ayesa has engaged Archaeological Management Solutions (AMS) on behalf of Fingal County Council (FCC) to undertake an Underwater Archaeological Impact Assessment (UAIA) for the proposed construction of a pier wall 3m in front of the existing steel section of the sheet pile pier wall.

The UAIA enclosed in Appendix E details the “low potential for submerged prehistoric finds and deposits to be encountered within the proposed development site.” And “No direct impacts arising from the proposed development are predicted on any known/recorded Maritime and Aviation Archaeology within the proposed development. This UAIA finds that there is low potential for unknown Maritime Archaeology Assets and negligible potential for Aviation Archaeology Assets to be encountered within the proposed development site, which the proposed development could directly and negatively impact.

7.6 Planning Policy Statement

The proposed development to replace the Skerries Harbour sheet pile section is a strategic investment that will reinstate the harbour’s operations. Using the improved facility will also provide a safer and more modern environment for the fishermen and sailors.

The National Spatial Strategy (NSS) recognises the importance of sustainable development in the marine and fisheries sector. It emphasises the need to support rural and coastal communities, particularly those relying strongly on the fishing industry. The proposed development in the harbour aligns with this policy, as it will reinstate, improve, strengthen and modernise the local fishing industry in Skerries, contributing to economic growth and job creation. Overall, the principle of the development is fully supported at all levels of strategic and statutory planning policy.

7.7 Land and Visual Impact

The proposed development is a sheet pile wall with a concrete façade, similar in size and height to the existing sheet pile walls in the area so that it integrates as best as possible and will have a very small impact on the land and visual surroundings. 4 No graphic illustrations of the proposed development are included in Appendix C.

7.8 Access and Traffic

A traffic impact assessment was not considered necessary due to the limited size of the proposed development relative to existing traffic volumes. The reinstatement of the sheet piles section of the pier will alleviate current marine congestion along the masonry quay. Also, access to the quay will be restricted to authorised vehicles and pedestrians, and a security gate will be installed to control access.

7.9 Waste, Noise and Dust

Construction stage noise and dust are expected to create a short-term, slight negative impact due to the temporary nature of the proposed works. At an operational stage, however, while dust is not likely to be an issue, noise levels may increase slightly due to the increased operations of the port. However, the distance of the port from any residential or commercial businesses and the small scale of the development noise levels are considered slight to negligible.

Construction stage waste will be segregated and collected by a licensed operator. Further details are provided in the Outline Construction Method Statement in Appendix B.

7.10 Water Usage

Service pedestals are expected to further reduce water usage by providing a centralised location for water meters and valves and enabling a pay-as-you-go service. These measures give the client greater control over water flow, enabling them to regulate water usage more effectively while incentivising users to conserve water.

8 Conclusion

In conclusion, the proposed development to replace the harbour's sheet pile wall is vital, offering a host of compelling reasons for its implementation. The main concern is the prioritisation of safety, as the new structure will eliminate current hazards and provide a secure berthing facility for various users of the Pier. The expanded functionality, capable of supporting diverse maritime activities, signifies a significant improvement. The introduction of controlled access measures ensures the facility's safety and guards against unauthorised use, further reinforcing its operational integrity. With a minimum design life of 75 years, the new sheet pile wall provides a robust, enduring solution to meet the community's long-term maritime needs.

The proposed development aligns seamlessly with national, regional and local policies and objectives outlined in the Development Plans. Through meticulous planning and adherence to sustainable development principles, the mitigation measures proposed to ensure that the integrity of nearby Natura 2000 sites, particularly the North Irish Sea SPA, Skerries Islands SPA, Rockabill SPA, or Rockabill to Dalkey Island SAC, will remain unaffected.

Furthermore, the assessment extends beyond ecological considerations, demonstrating a reasonable balance that protects the area's biodiversity, high landscape quality, visual amenities and built heritage assets. The proposed development integrates with the area's planning and sustainable development.

These benefits provide a compelling case for adopting this development, securing the harbour's future, promoting safety, and fostering a thriving maritime community.

9 References

- [1] eOceanic, “eoceanic,” 12 06 2023. [Online]. Available: <https://eoceanic.com/sailing/harbours/79/>.
- [2] MWP, “Structural Assessment Skerries Pier,” Fingal County Council, 2022.
- [3] Norfolk Marine Ltd, “Core Hole Investigation Steel Sheet Pile Survey - Supplement,” Fingal County Council, Skerries Pier, 2021.
- [4] Norfolk Marine Ltd, “Underwater Survey Report Steel Sheet Pile Survey,” Fingal County Council, Skerries Pier, 2021.
- [5] Ayesa, “CM1400-MAR101-02:Options Assessment Report,” ,, Fingal County Council, 2023.
- [6] L. G. a. H. Department of Housing, Development Plans - Guidelines for Planning Authorities, 2022.
- [7] Irish Government, Planning and Development Act, 2000.
- [8] Government of Ireland, National Planning Framework, 2023.
- [9] Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031, 2023.
- [10] Fingal County Council, Fingal Development Plan 2017-2023, 2017.
- [11] Fingal County Council, “Fingal Development Plan 2023-2029,” 2023.
- [12] Government of Ireland, Heritage Ireland 2030 A framework for Heritage, 2022.
- [13] L. G. a. H. Department of Housing, “National Marine Planning Framework,” 2021.
- [14] Government of Ireland, “Planning and Development (Amendment) Act,” 2010.
- [15] Government of Ireland, “Maritime Area Planning Act,” 2021.
- [16] Government of Ireland, “Foreshore Act,” 1933.

Appendix A. Visual Inspection Photos



Figure A-1 Corrosion Holes Present at the Lower Tidal Water Levels of the Sheet-Pile Wall on the Leeside of the Pier.



Figure A-2: Rock Infill Spilling from Existing Corrosion Holes.



Figure A-3: Corrosion of Sheet-Piles at the end of Skerries Pier.



Figure A-4: Corrosion Holes & Rock Infill Spilling Present at the Lower Tidal Water Levels of the Sheet-Pile Wall on the at the End of Skerries Pier.



Figure A-5: Corrosion of Sheet-Piles at the End of Skerries Pier.



Figure A-6: Complete Corrosion at the Top Sheet-Pile Wall at the End of Skerries Pier.



Figure A-7: Void Behind the Wall at the End of Skerries Pier.

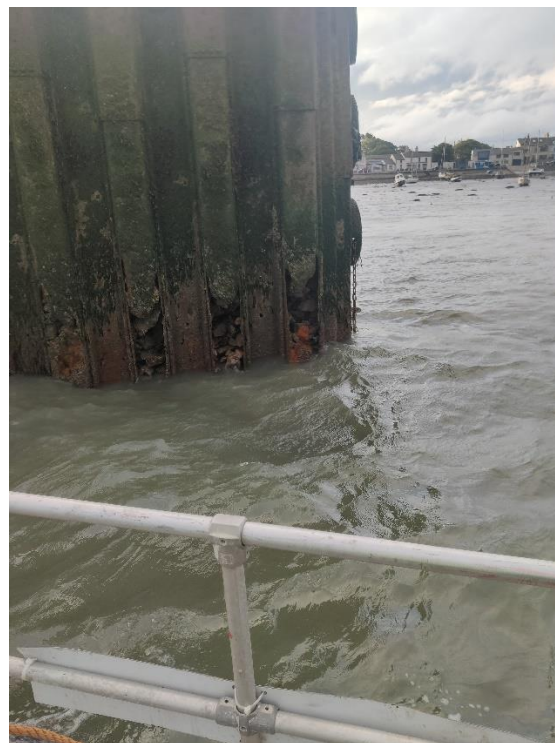


Figure A-8: Corrosion of Sheet-Piles at the End of Skerries Pier (Seward Side)



Figure A-9: Extensive Marine Flora Growth at the Lower Tidal Ranges of the Sheet-Pile Wall.



Figure A-10: Corrosion Holes in the Sheet Piles on The Seaward Side of the Pier



Figure A-11: Corrosion Holes in the Sheet Piles on The Seward Side of the Pier

Appendix B. Outline Construction Method Statement



Skerries Harbour– Sheet Pile Wall Replacement

Outline Construction Method Statement

Report No. CM1400-MA-RP-003

24 January 2023

Revision 01

Comhairle Contae
Fhine Gall
Fingal County
Council





Document Control

Project: Skerries Harbour– Sheet Pile Wall Replacement

Document: Outline Construction Method Statement

Client: Fingal County Council

Report Number: CM1400-MA-RP-003

Document Checking:

Revision	Revision/ Review Date	Details of Issue	Authorised		
			Prepared By	Checked By	Approved By
00	24 January 2023	For Information	CM	DOB/PL	SG
01	24 January 2023	For Planning	CM	DOB/PL	SG
<p>Disclaimer: Please note that this report is based on specific information, instructions, and information from our Client and should not be relied upon by third parties.</p>					



www.ayesaeng.com

www.ayesa.com/en



Contents

1	Introduction.....	1
1.1	Purpose	1
1.2	Site Location and Background.....	1
1.2.1	Background	2
1.2.2	Project Background.....	3
2	Construction Environmental Management Plan.....	5
2.1	Responsible Person	5
2.1.1	Construction Manager	5
2.1.2	Environmental Officer	5
2.2	Working Hours.....	6
2.3	Traffic Management Plan.....	6
2.3.1	Overview	6
2.3.2	Noise	7
2.3.3	Vibration.....	7
2.4	Pollution Prevention.....	8
2.5	Health and Safety	9
2.6	Marine Mammal Observer (MMO)	9
2.7	Management of Dust, Odour and Air Quality.....	10
2.7.1	Management of Dust.....	10
2.7.2	Management of Odour.....	10
3	Outline Construction Methodology	12
3.1	Site Survey and Permits	12
3.1.1	Geotechnical Investigation.....	12
3.1.2	Pre-Mobilisation Phase.....	12
3.1.3	Site Preparation.....	12
3.1.4	Site Compound and Storage Area.....	13
3.1.5	Parking Spaces.....	13
3.2	Civil & Structural Works	13
3.2.1	Site Security and Site Boundaries	13
3.2.2	Pier Construction.....	13
3.2.3	Temporary Works and Plant Requirements.....	14



3.2.4	Vibration Monitoring	15
3.2.5	Codes, Standards and Guidelines	16
3.3	Site Restrictions	16
4	References	18



1 Introduction

1.1 Purpose

Ayesa (formally ByrneLooby) has been appointed by Fingal County Council (FCC) (the “Client”) to provide support for the Skerries Harbour Pier Wall Upgrade. This Outline Construction Method Statement aims to provide a high-level method statement of the project's construction works, its planning context, and its potential impact on the surrounding area. The method statement provided in this document is based on the preliminary design and limited geotechnical information, which is subject to change.

It is recommended that the Outline Construction Method Statement and the accompanying drawings be reviewed together to understand the proposed development and its potential implications.

1.2 Site Location and Background

Skerries Harbour is located on the east coast of Ireland, north of Dublin, as shown in Figure 1-1.



Figure 1-1: Skerries Harbour Location (Google Earth)



1.2.1 Background

Skerries Harbour, originally constructed as a masonry pier in the 18th century, is approximately 70m in length and 5m in width and is listed on the Record of Protected Structures (RPS) with reference No.0183. The harbour was extended with a 60m sheet pile wall, as shown in Figure 1-2.



Figure 1-2: Skerries Harbour Site Layout



Figure 1-3: Boats Bottoming Out on Low Tide (Source <http://surl.li/ibcix>)



1.2.2 Project Background

The sheet-piled section of the pier has been in poor condition since at least 2005, with visible accelerated corrosion and some sections of the out-pan completely removed, exposing the fill behind. Remediation efforts included installing covering plates and old tyres for protection against vessel berthing.

In more recent times, MWP conducted a Structural Assessment [1], including:

- Visual inspection in 2019.
- A Core Hole Investigation in 2021 by Norfolk Marine [2], revealed localised voiding under the pier.
- Dive surveys in 2020 and 2021 by Irish Sea Contractors and Norfolk Marine, respectively, recording the condition of the sheet piles and measuring voids.
- Underwater Dive Inspection in 2021 by Norfolk Marine [3], measuring steel thickness in sheet pile out-pans, revealed significant thickness loss, particularly between bed level and MLWS, attributed to Microbial Induced Corrosion (MIC), was found, posing a risk of sudden structural failure under external loading.

Based on this information, MWP developed a structural-geotechnical model indicating a high probability of structural failure due to external forces. Despite withstanding recent storms, ongoing degradation and variable loading led to the recommendation to FCC to close the sheet pile in January 2023.

Following the closure, Ayesa were appointed to perform an extensive Options Appraisal Report [4] evaluating various remedial and replacement options for the sheet pile pier at Skerries Harbour.

Numerous options were considered and eliminated due to their unsuitability, while others advanced to a multi-criteria analysis (MCA). The MCA evaluated each of the short-listed options against defined weighted criteria. The Encapsulation Sheet Pile option emerged as the favoured solution advanced to the detailed design stage.

The encapsulated sheet pile option exhibited fewer complexities than alternative solutions, indicating smoother project execution and reduced operational costs. The construction procedure for this option offers a slight advantage in terms of simplicity, enhancing constructability, reducing construction time, and overall supporting feasibility. Consequently, it stands as the client's and Ayesa's chosen option.

Refer to Figure 1-4 and Figure 1-5 for indicative renderings of the proposed encapsulation sheet pile solution.



Figure 1-4: Proposed Encapsulation Sheet Pile



Figure 1-5: Proposed Encapsulation Sheet Pile



2 Construction Environmental Management Plan

This section comprises a high-level Construction Environmental Management Plan (CEMP) for the works. The final CEMP can only be prepared subject to planning permission, foreshore consent, and other consents being provided.

2.1 Responsible Person

Fingal County Council will appoint a competent and experienced Contractor. The tender will require that the Contractor is suitably qualified and have relevant experience in Environmental Construction Management and Health and Safety. Regular meetings will be held between the Contractor and Fingal County Council representatives, focusing on the CEMP. Some of the principal duties and responsibilities of this role include:

- Overall responsibility for the implementation of the CEMP,
- Allocating the correct resources to ensure the successful implementation of the CEMP,
- Assist in the management review of the CEMP for suitability and effectiveness.

2.1.1 Construction Manager

The Construction Manager is directly responsible to the Construction Director in successfully executing the proposed development. The principal duties and responsibilities of this role in respect of the CEMP include:

- To report to the Construction Director on the ongoing performance and development of the CEMP,
- To discharge their responsibilities as will be specified within the final CEMP,
- To support and augment the Construction Management Team (CMT) through the provision of adequate resources and facilities for the duration of the implementation of the CEMP.

2.1.2 Environmental Officer

The CMT Environmental Officer will have responsibility for daily tasks on site; some of the principal duties and responsibilities of this role include:

- Report to the Construction Manager on the environmental performance of staff, employees and contractors,
- Ensure compliance with environmental procedures and method statements,
- Ensure the development of the CEMP and that environmental procedures, method statements and work instructions are adequately executed and adhered to concerning environmental requirements on-site daily.



2.2 Working Hours

- Water levels and inclement weather may restrict some work.
- Night-time and weekend work are not permitted except with the approval of the Employer’s Representative.
- Further restrictions on working hours may be put in place due to the noise-induced during the piling.
- The PSCS will liaise with the Client and Engineer regarding allowable working hours.
- As is good practice, no lone working is permitted on the development at any time. The PSCS/Main Contractor must ensure they provide a supervisor at all times for all Work outside of normal working hours.

The following restrictions apply to all areas of the development of the project:

Table 2-1: Site Working Hours

Day	Working Hours
Monday to Friday	8:00 am – 6:00 pm (or sunset, whichever is first)
Saturday	8:00 am – 1:00 pm
Sundays and Bank Holidays	No Working

2.3 Traffic Management Plan

2.3.1 Overview

A Traffic Management Plan (TMP) is to be agreed upon with Fingal County Council, the Transport Infrastructure Ireland (TII) and the National Transport Authority (NTA) as required.

The appointed Contractor will be responsible for:

- The creation and implementation of the TMP,
- Design, planning, installation, maintenance and decommissioning of traffic safety measures as required,
- Detailed traffic management plans compiled per Chapter 8 of the Traffic Signs Manual, Department of Transport, 2010, including:
 - Phasing of works,
 - Detailed traffic management drawings,
 - Traffic management of marine plant,
 - Timing of operations and works,
 - Road lighting.
- Compliance with the Temporary Closing of Roads Regulations and amendments (Roads Act 1993),



- Public signage,
- Temporary warning and information signs,
- Traffic cones and taping,
- Road danger lamps,
- Temporary construction of roadways,
- Appointment of Traffic Safety and Control Officer, responsible for:
 - Liaison with Fingal County Council Traffic Manager and An Garda Siochana,
 - Management of traffic,
 - Notification of accidents to An Garda Siochana,
 - Ensure the safe working operation of plant and machinery.
- Pre- and post-work road condition surveys,
- Issuing of notices to the Automobile Association and local newspapers where required,
- Cleaning of internal site roads and adjacent site entrance road,
- Making traffic orders and authorisation of signage and signals.

2.3.2 Noise

The Contractor shall take all necessary precautions to reduce the noise hazards to site operatives and the public in general. The Contractor will comply with the standards in BS 5228-1-1: Code Of Practice for Noise and Vibration Control on Construction and Open Sites [5].

The Contractor shall limit excessive noise-generating activities to Daylight Hours, as discussed in Section 2.2, unless the Engineer Representative consents.

The Contractor shall provide estimates of noise generated by the various stages of the Works. Where the Contractor's equipment or activities are estimated to generate noise levels above 90 dB(A), the Contractor shall isolate the affected area and ensure persons entering the affected area wear suitable ear protection. The PSCS must conduct a noise assessment survey if noise is suspected to surpass 85 dB(A).

The Contractor shall comply with European Communities (Protection of Workers) (Exposure to Noise) Regulations, 1990 [6].

2.3.3 Vibration

The Contractor shall take all necessary precautions to reduce the noise hazards to site operatives and the public in general. The Contractor will comply with the standards BS 5228-2: Code Of Practice for Noise and Vibration Control on Construction and Open Sites [7]



2.4 Pollution Prevention

The Contractor will be required to Develop a pollution prevention plan involving identifying potential sources of pollution, implementing measures to reduce or eliminate those sources, and monitoring the effectiveness of those measures. In constructing a new sheet pile pier, critical pollution prevention is centred on spills/ accidental releases of hazardous substances or pollutants that could harm human health and the environment. Spill prevention measures that can be taken:

- Identify potential spill hazards: Conduct a hazard assessment to identify potential spill hazards, such as chemicals, fuels, and waste materials, that are present in your facility or operation.
- Develop a spill prevention plan: Develop a spill prevention plan that outlines the procedures for preventing, containing, and responding to spills. The plan should include spill response procedures, spill clean-up procedures, and the roles and responsibilities of employees and contractors.
- Implement spill prevention measures: Implement spill prevention measures, such as installing spill containment systems, secondary containment, and leak detection devices. Ensure that all hazardous materials are stored in appropriate containers and properly labelled.
- Conduct regular inspections: Conduct regular inspections of the facility or operation to ensure all spill prevention measures are in place and working effectively. Inspections should include checking for leaks, spills, and other potential hazards.
- Provide employee training: Provide employee training on spill prevention measures and spill response procedures. Ensure that all employees know the potential spill hazards and how to respond during a spill.
- Respond promptly to spills: In the event of a spill, follow the spill response procedures outlined in your spill prevention plan. This spill response may involve evacuating the area, containing the spill, and contacting emergency responders.
- Review and update the spill prevention plan: Regularly review and update the plan to ensure it remains effective and current with current regulations and best practices.
- Use environmentally friendly materials: The Contractor should use environmentally friendly materials during construction. For instance, they can use bio-degradable lubricants and hydraulic fluids for their machinery and equipment.

Other project Pollution prevention measures:

- Proper handling and disposal of construction waste, such as excess soil and debris, is essential in preventing pollution. Construction waste should be segregated and disposed of at authorised facilities.
- Silt curtains help limit sediment dispersion and reduce the environmental impact on the surrounding water bodies,
- Regular monitoring of water quality can be conducted to assess the effectiveness of the mitigation measures and detect any potential pollution events. Monitoring can also



provide early warning of any potential environmental impacts and allow for prompt action to be taken to prevent further pollution,

- Construction activities can generate noise levels that exceed local noise regulations and impact nearby residents. Noise mitigation measures such as using noise barriers or mufflers on equipment can be used to minimise noise levels,

The Pollution Prevention plan is fluid and can be continually improved based on monitoring and evaluation results. This may involve revising the plan, implementing new measures, and ensuring that employees and contractors are aware of any changes to the plan.

2.5 Health and Safety

Fingal County Council understands the Client's duties per the Safety, Health and Welfare at Work Act 2005 provisions and the Safety, Health and Welfare at Work (Construction Regulations) 291 of 2013.

A Project Supervisor Design Process and Project Supervisor Construction Stage will be appointed for the design and construction stages of the Contract.

2.6 Marine Mammal Observer (MMO)

To avoid potential disturbance or injury to marine mammals during piling activities, the Contractor shall implement the following:

- A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor marine mammals and to log all relevant events using standardised data forms,
- The MMO shall be present to ensure all piling works are per the Guidance to Manage the Risk to Marine Mammals from Man-Made Sound Sources in Irish Waters [8].

Pre-Start Monitoring

- Piling activities will only commence where effective visual monitoring has been achieved, as performed and determined by the MMO. Where effective visual monitoring, as determined by the MMO, is not possible, the sound-producing activities will be postponed until effective visual monitoring is possible,
- An agreed and clear on-site communication signal will be used between the MMO and the Contractor as to whether the relevant activity may proceed. It shall only proceed on positive confirmation with the MMO,
- The MMO shall conduct pre-start-up constant effort monitoring for at least 30 minutes before the sound-producing activity commences. Sound-producing activity will not commence until at least 30 minutes have elapsed, with no marine mammals detected within the Monitored Zone by the MMO,
- The prescribed Pre-Start Monitoring will be followed by a pre-arranged Ramp-Up Procedure wherever possible and will include continued monitoring by the MMO,
- Full reporting on MMO operations and mitigation undertaken shall be provided to the National Parks and Wildlife Service.



2.7 Management of Dust, Odour and Air Quality

2.7.1 Management of Dust

During the Construction stage, noise and dust are anticipated to generate a short-term, slight adverse influence due to the temporary nature of the proposed works. Dust and particulate matter emissions may arise from delivering material and other goods to the site combined with storing material on the site; however, if adequate mitigation measures are adhered to, dust and, ultimately, the air quality is not anticipated to be a concern.

Potential causes of dust and particulate matter emissions may include the following:

- Stockpiles and storage compounds – the stockpiling of material for long periods will increase dust emissions. This is dependent on the type of material, the quantity of silt contained therein and the moisture content of the material,
- Demolition works,
- Excavation and earthworks,
- Concrete batching,
- Cutting, grinding and sawing,
- Scabbling,
- Waste disposal and burning.

2.7.1.1 Mitigation Measures

The following mitigation measures are proposed:

- Public roads outside the development shall be regularly checked for cleanliness and cleaned as necessary,
- Stockpiling of material shall be minimised, and exposure to wind shall be minimised where possible,
- Site roads shall be regularly swept, cleaned and maintained as appropriate. Vehicles departing the development shall be subject to wheel washing,
- Stockpiled material and gravel surfaces shall be sprayed with water if required,
- Burning shall not be permitted.

2.7.2 Management of Odour

There is a potential for the odour to be created due to the disturbance of seabed sediments. These works will be carried out in the coastal environment, where wind speeds are generally greater than inshore, as there are no physical obstructions. This will result in the rapid dispersion of odours, not likely to transport the odours to sensitive receptors within the harbour or extended area.



A complaint investigation plan will be implemented to record any odour complaints. If the complaint is verified, mitigation measures shall be implemented (such as temporary suspension of the works).



3 Outline Construction Methodology

3.1 Site Survey and Permits

3.1.1 Geotechnical Investigation

The geotechnical investigation (GI) still to be undertaken is a critical component of any piling project. It provides valuable information about the founding conditions for the piles underneath the seabed on site. This information is needed to inform design decisions for the work.

The GI campaign is typically undertaken during the preliminary design stage by the Designer and provided to the Contractor as information for the tender pack. The Contractor is responsible for confirming that the material is suitable for piling and that any performance requirements set in the Works Specification can be met with the proposed material specification.

3.1.2 Pre-Mobilisation Phase

After the Contract has been awarded, there will be a pre-mobilisation phase before the project commences on-site. During this phase, the following items will be progressed as detailed in the Construction Programme included in the work proposals:

- Project Documentation;
- Design Development;
- Consultations with the Client and any other relevant third parties/stakeholders;
- Procurement of labour, plant, materials & subcontractors.

3.1.3 Site Preparation

Clearing the development of any obstructions is a crucial first step to initialising the remedial works of the pier, as it ensures that the construction site is safe and free of any hazards that may impede the construction process. The clearance process at Skerries Harbour will likely involve the removal of vessels alongside the masonry pier and vehicles parked on the masonry pier, clearance of any removal furniture and debris, and full closure of the pier during the works, to be agreed upon with the Harbour Master and Client. The sheet-pile section of the pier should largely be clear of vessels, quayside furniture, and debris; however, the Contractor will need to ensure the pier is satisfactorily cleared prior to construction.

Prior to the commencement of construction, the Contractor will need to carry out a precondition survey, aiming at identifying and recording the condition of the pier at the time of handover to the Contractor. Part of this survey will be the need to catalogue and assess the pier deck prior to the construction of deck cracks, with the Contractor implementing crack gauges if deemed necessary. This survey will also require a full inspection report to be submitted alongside photographic evidence.



3.1.4 Site Compound and Storage Area

The storage of materials, containers and waste, however temporary, will follow best practices at all times and be stored in designated areas within the Site compound. Potentially polluting material, such as fuels or oils, will be stored in bunded areas, on an impermeable base, and undercover to prevent damage from the elements. All containers will be stored upright and labelled. Sufficient waste storage will be supplied near all working areas.

3.1.5 Parking Spaces

Designated parking spaces will be made available to the contractor on the southern Harbour Road close to Skerries by FCC for the duration of the works. Additionally, public parking spaces can be found to the north of the site.

3.2 Civil & Structural Works

3.2.1 Site Security and Site Boundaries

The site will be secured by security site boundary fencing and with exclusion signage installed, warning third parties of the potential hazards on site, thus excluding unauthorised access within the works site.

The site boundaries will be laid out with visual markers, and these boundaries will be communicated to all personnel. Works will be confined to the proposed site boundaries unless instructed otherwise by the Employers Representative.

3.2.2 Pier Construction

The method of construction listed below describes the high-level steps necessary to produce the encapsulation of a new sheet pile wall discussed in the Options Assessment Report [4]. The construction must be carried out carefully, as the new construction elements will involve working around the existing pier. As such, care will need to be taken not to compromise the structural integrity of the existing pier wall further than its present condition. Due to the poor current structural condition of the sheet-piled section of the pier, it is envisaged that the construction methodology would implement a floating plant.

However, landside construction methodology can only be considered should the Contractor validate that the loading on the sheet-piled section of the pier stays within structural limits to prevent collapse. To justify the pier's suitability for landside construction, a qualified structural engineer must conduct a structural assessment to determine the safe working load of the deteriorated pier. Plate-bearing tests on the pier deck should also be carried out to confirm its loading capability and validate the feasibility of the landside option.

The envisaged construction methodology for the new sheet-piled is outlined in CM1400-MA-DR-01004, enclosed in this planning package in 4 with a summary as follows:

- Secure site boundaries with temporary fencing.



- Establish the compound at the end of the masonry section of the pier or the Contractor's preferred location. The finalised location is to be agreed upon between the client and the Contractor before construction.
- Installation of silt curtains surrounding the site.
- The existing seawall on the pier will be demolished to facilitate the construction process.
- Sheet piles will be driven into the seabed on either side of the existing pier using an excavator or crane fitted with a vibratory pile hammer (or similar).
- Trenches will be dug through the existing pier deck to facilitate the installation of the new tie-back system, which consists of tie-rods which connect the sheet pile walls on either side of the pier.
- The new pier section will be filled with a selected rock fill imported from commercial sources. Where possible, material reuse from the existing structure will be used to reduce waste and removal of material.
- Reinforced concrete encapsulation will be constructed around the new sheet piles. The encapsulation shuttering will extrude under the current seabed level to the determined scour depth for the site to ensure the fully reinforced concrete encapsulation of the sheet pile.
- A reinforced concrete capping beam and pier deck will be constructed on the sheet piles and selected rock fill. This will involve rebar cages, shuttering, and concrete casting.
- A reinforced concrete recurve seawall will be constructed on the new seaside capping beam. This will involve rebar cages, shuttering, and concrete casting.
- The pier furniture and services/utilities, such as lighting, drainage, and utilities, will be installed, and furniture, such as mooring bollards and ladders.
- Remove the site compound upon completion of the works.

3.2.3 Temporary Works and Plant Requirements

The following temporary works may need to be considered by the Contractor to execute the works:

- Temporary access roads and bridges – These may need to be built to provide access to the water for plant and equipment.
- Pumping systems – These may be used to manage water levels during construction, such as filling the encapsulated sheet pile section with the selected rock fill.
- Access control and security – This will need to be installed to prevent access to the existing sheet pile section during construction and any other areas used for site compound or access.
- Piling gate – This will be required to be designed by a qualified temporary works designer. The temporary works will be required to prevent damage to the existing pier during the piling works. Welding will likely be required for the implementation of the



piling gate. Thus, welding would need to be included in both the temporary works design for the piling gate and addressed in the relevant and required Health and safety documentation and certification, including being undertaken by a certified welder.

Further temporary works may be required based on the Contractor's proposed methodology, i.e. landside or waterside construction. Any temporary works required for the proposed methodology foreseen by the Contractor will need to be accompanied by temporary works designs undertaken by a suitably qualified designer, as well as accompanied by relevant testing, Health and safety documentation and certification, be undertaken by suitably qualified personnel, and any other supporting documentation required for the design.

The Contractor will be required to design and construct all temporary works, as required, to a high standard and with consideration for their impact on the environment and neighbouring areas. Appropriate permits and approvals may also be required before these works can be carried out.

3.2.4 Vibration Monitoring

A variety of the plant will be in use, such as excavators, lifting equipment, dumper trucks, compressors, and generators. Vehicular movements to and from the site will use the existing local road network towards the harbour.

Due to the nature of the activities undertaken on a construction site, there is potential for generating increased noise levels. The potential for vibration at neighbouring buildings and residential dwellings for this project is limited to demolition works of the seawall deck structure, installation of the new sheet piles and HGV movements. The proposed works are, however, unlikely to result in significant vibration at local residences from on-site construction activities due to the separation distances. A vibration monitoring campaign along the masonry wall during construction will be mandatory for the Contractor. Should the Contractor find that the construction works are exceeding the vibrational capacity, the Contractor shall stop the works immediately and inform the Engineer of the exceedance to enable appropriate adjustments to mitigate the impact.

Some additional possible mitigation measures to consider to be implemented Contractor during the construction phase are as follows :

- **Pre-Breaking Assessment:** Assess the surrounding structures before construction. Identify any weak points or areas of concern that may require special attention during the breaking process.
- **Protective Barriers:** Install protective barriers between the breaking equipment and the pier structure, such as geotextile or rubber mats. These barriers help absorb vibrations and protect the structure from direct impact.
- **Sequential Breaking:** Breaking the wall and deck into smaller sections helps distribute the impact and reduces the potential for high-intensity vibrations.



3.2.5 Codes, Standards and Guidelines

- While the specific standards and guidelines for piling projects in Ireland may vary depending on the scope and location of the project, some of the key standards and guidelines that contractors may need to adhere to include:
- Environmental Protection Agency (EPA) Guidelines
- The Planning and Development Act
- The Foreshore Act
- Environmental Impact Assessment (EIA) Directive
- Habitats Directive and Birds Directive
- Waste Management Acts and Regulations
- Construction Industry Federation (CIF) Guidelines
- Safety, Health and Welfare at Work Act
- National Parks and Wildlife Service (NPWS) Guidelines
- Marine Strategy Framework Directive
- Strategic Environmental Assessment (SEA) Directive
- Natura 2000 Network Guidelines
- European Union (EIA) (Foreshore) Regulations
- Local Development Plans and County Development Plans
- Coastal Zone Management Guidelines
- National Biodiversity Action Plan
- Water Framework Directive

3.3 Site Restrictions

- The Contractor must know that the works will involve working within an intertidal zone, be subject to tide and wave action, and must schedule works accordingly. Adequate planning and actioning of any appropriate precautions must be undertaken before the commencement of the works.
- The Contractor must know that the existing sheet pile section of the pier is restricted from loading.
- The Contractor is to provide details of the suitable plant to undertake the works. The Contractor must confirm the plant's suitability to operate in areas affected by tide and wave actions. All plant is required to be clean on arrival at the site.
- The Contractor must be aware that they will be working in a live harbour environment and will, therefore, need to cordon off any landside site compound facilities and access points for the duration of the works. The Contractor will also need to coordinate with



the Harbour Master to ensure vessel traffic does not impede on construction works and vice versa.

- Dust control measures should be employed for activities that generate high dust levels. The work areas should be appropriately screened to prevent dust migration to areas outside the work area. The Contractor must ensure the premises or parked cars are not affected by dust generated by the works.
- The successful Contractor must prepare a comprehensive Method Statement outlining proposals for access and delivery of materials to the site, any cranning of heavy materials, and storage of materials on-site.
- A comprehensive Method Statement will also be required to complete work in areas which interact with residents, the public, and road users.
- The above method statements include details on how the Contractor intends to prevent damage to fences, gates, walls, roads, or paved areas and other site features to remain in position during the execution of the Works. The Contractor is to bear the cost of repairing any damage arising from the execution of the Work.
- The Contractor must provide the Contractor's welfare provisions such as toilet and canteen facilities, office accommodation, meeting room, etc.
- It is necessary to consider the route used to transport goods or equipment to a specific site. Planning the plant delivery and route in advance is essential, considering potential obstacles hindering or impeding transportation.
- The Contractor shall be required to determine the exact location of any local services within the construction area, and not explicitly taken from any drawings or site logs, as the accuracy of these cannot be determined.
- The Contractor shall be required to maintain clear communication lines with the Harbour Master. This shall include daily consultations informing the Harbour Master of the ongoing operations.



4 References

- [1] MWP, “Structural Assessment Skerries Pier,” Fingal County Council, 2022.
- [2] Norfolk Marine Ltd, “Core Hole Investigation Steel Sheet Pile Survey - Supplement,” Fingal County Council, Skerries Pier, 2021.
- [3] Norfolk Marine Ltd, “Underwater Survey Report Steel Sheet Pile Survey,” Fingal County Council, Skerries Pier, 2021.
- [4] Ayesa, “CM1400-MAR101-02:Options Assessment Report,” Fingal County Council, 2023.
- [5] BSI Standards, BS 5228-1:Code of practice for noise and vibration control on construction and open sites - Noise, 2009.
- [6] European Union, “European Communities (Protection Of Workers) (Exposure To Noise) Regulations,” 1990.
- [7] BSI Standards, “BS 5228-2: Code Of Practice for Noise and Vibration Control on Construction and Open Sites,” 2009.
- [8] Department of Arts, Heritage, and the Gaeltacht, “Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters,” 2014.

Appendix C. Photomontages



Current View



Proposed View



Current View



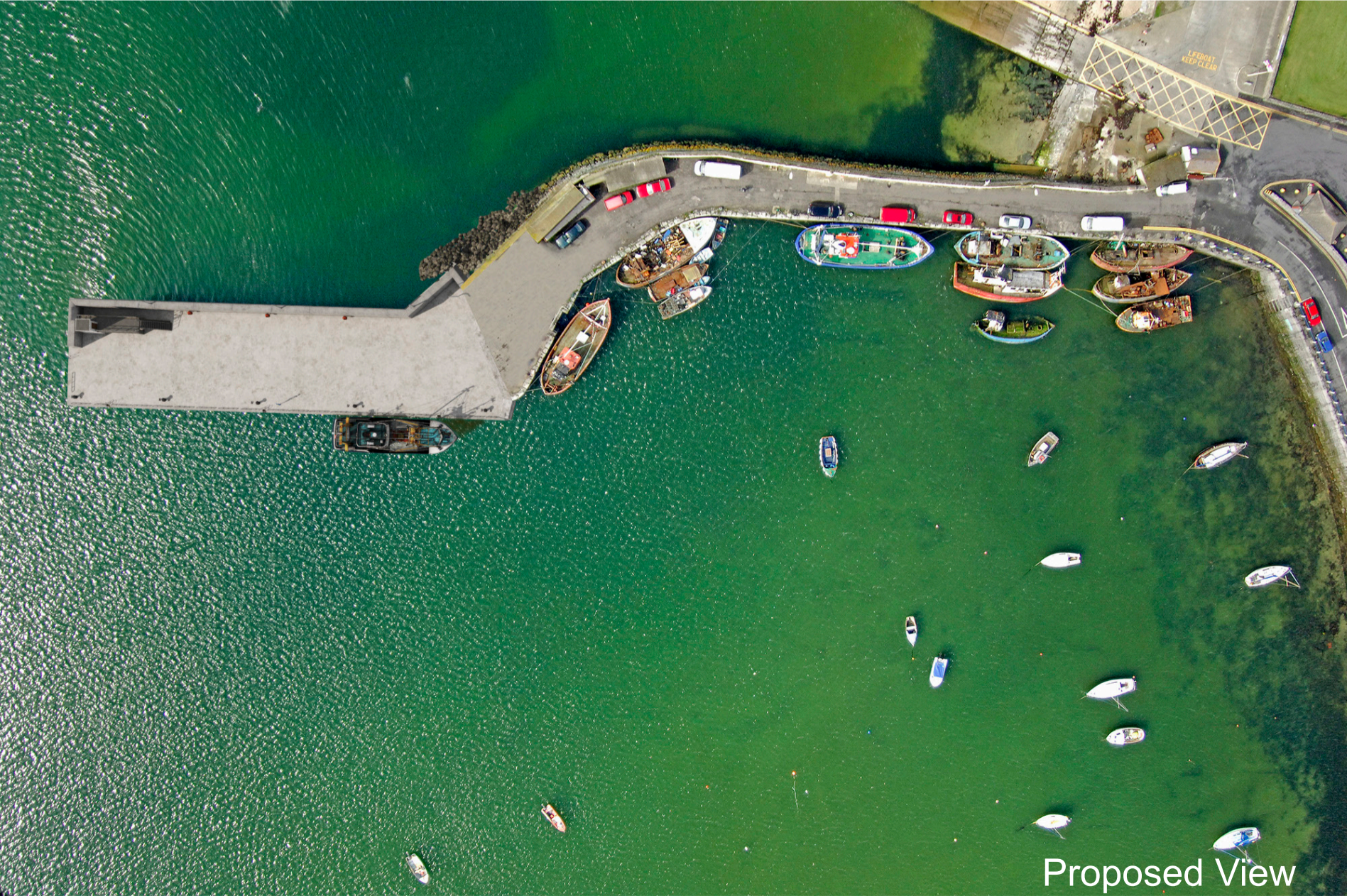
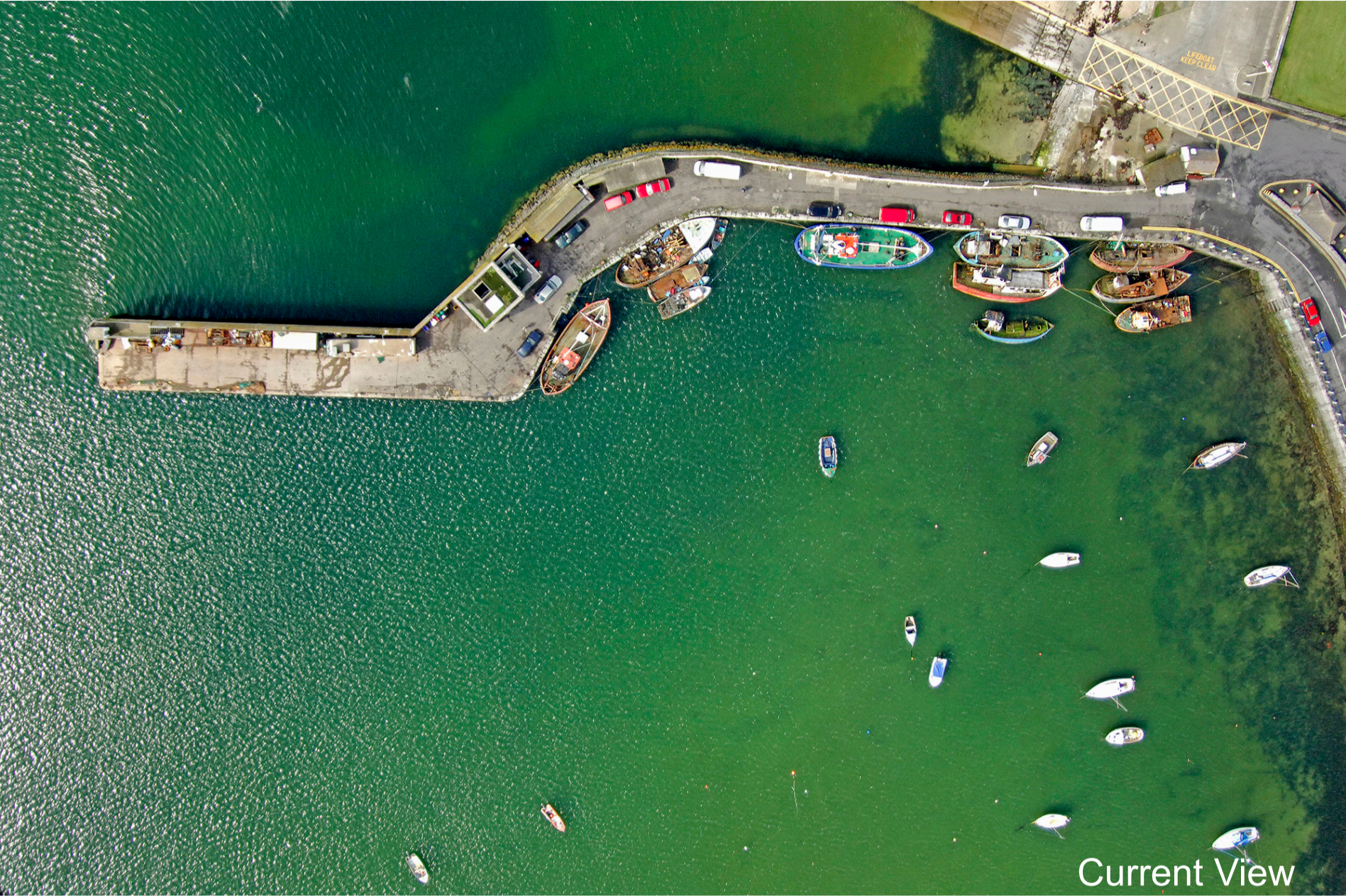
Proposed View



Current View



Proposed View



Appendix D. Drawings

SKERRIES HARBOUR - SHEET PILE WALL REPLACEMENT

CLIENT:

**Comhairle Contae
Fhine Gall**
Fingal County
Council



CONSULTANT:

ayesa

Notes:

1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
2. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
3. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.

DRAWING LIST				
DRAWING NO.	DRAWING TITLE	SHEET NO.	SIZE	REV NO.
CM1400-MA-DR-00001	COVER PAGE	1 of 1	A3	00
CM1400-MA-DR-00002	DRAWING INDEX	1 of 1	A3	00
CM1400-MA-DR-01000	10,560 SITE LAYOUT MAP	1 of 1	A3	00
CM1400-MA-DR-01001	SITE LOCATION MAP	1 of 1	A3	00
CM1400-MA-DR-01002	SITE LOCATION PLAN	1 of 1	A3	00
CM1400-MA-DR-01003	DEMOLITION PLAN	1 of 1	A3	00
CM1400-MA-DR-01004	DEMOLITION PLAN AND CONSTRUCTION SEQUENCE	1 of 1	A3	00
CM1400-MA-DR-01100	EXISTING SITE LAYOUT AND SECTION A	1 of 1	A3	00
CM1400-MA-DR-01101	PROPOSED SITE LAYOUT AND SECTION B	1 of 1	A3	00
CM1400-MA-DR-01102	PROPOSED ELEVATIONS A & B	1 of 1	A3	00
CM1400-MA-DR-01103	PROPOSED SERVICES PLAN	1 of 1	A3	00

00	02/24	PLANNING APPLICATION	TJOC	POC	SG
Rev	Date	Description	By	Chk	App



CLIENT

**Comhairle Contae
Fhine Gall**
Fingal County
Council



PROJECT

SKERRIES HARBOUR
SHEET PILE WALL REPLACEMENT

DRAWING TITLE

DRAWING INDEX

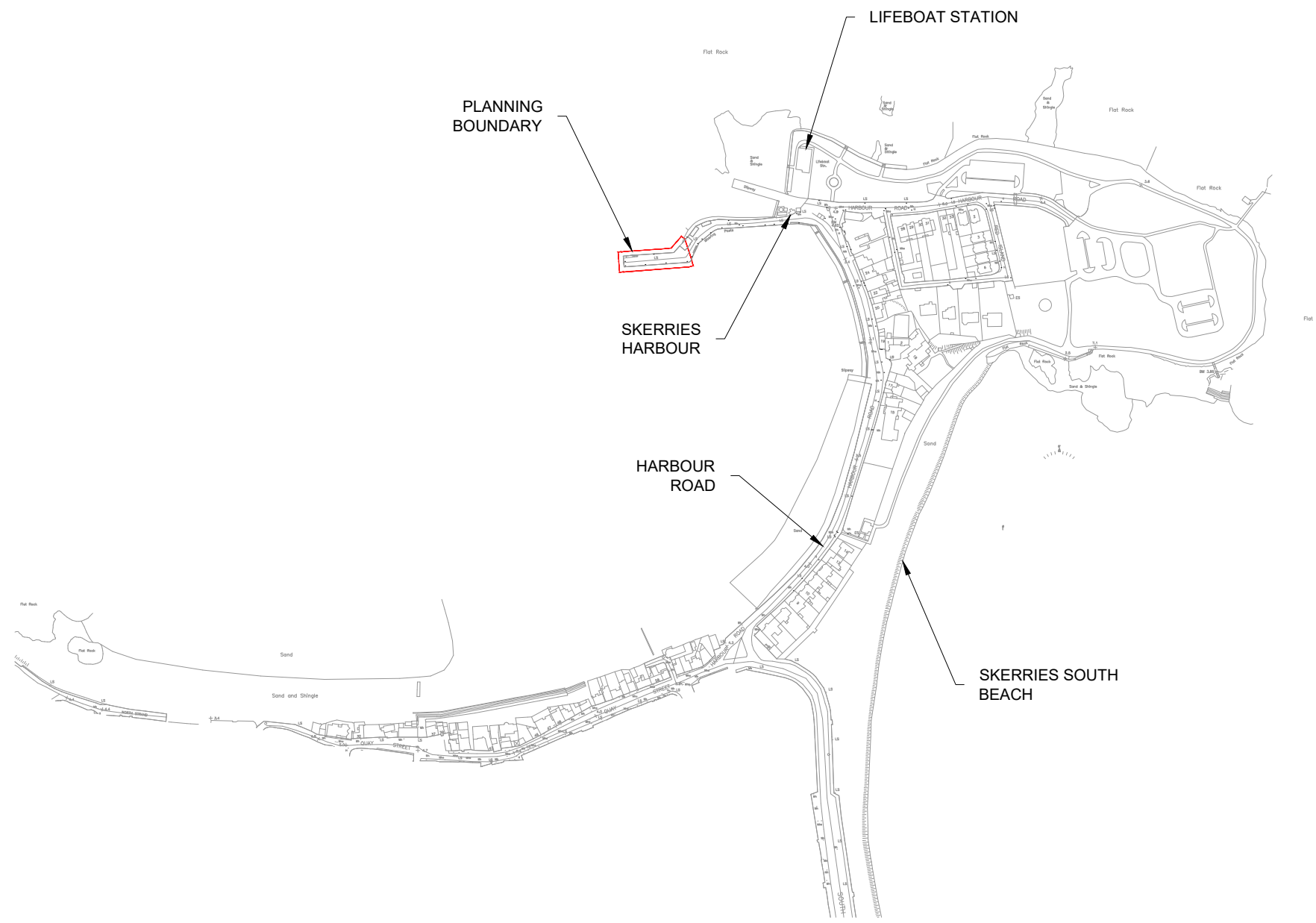
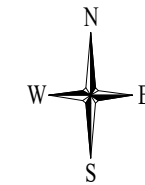
STATUS

PLANNING APPLICATION

SUITABILITY

—

Date: 14.11.23	Scale: N.T.S.	Drawn: TJOC	Chk: POC	App: SG
Project No: CM1400	Drg. No: CM1400-MA-DR-00002	Rev: P01		



PLANNING BOUNDARY

LIFEBOAT STATION

SKERRIES HARBOUR

HARBOUR ROAD

SKERRIES SOUTH BEACH

SITE LOCATION MAP

Scale 1:5,000

GENERAL NOTES

Notes:

1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
2. ONLY WRITTEN DIMENSIONS SHALL BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
4. THIS DRAWING IS TO IRISH TRANSVERSE MERCATOR (ITM) COORDINATES.
5. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.

LEGEND:

█ PLANNING BOUNDARY

SCALE 1:5,000
 MAP SHEETS: 2652-07
 ITM CENTREPOINT
 CO-ORDINATES:
 725260, 761193
 DEVELOPMENT ADDRESS:
 SKERRIES HARBOUR
 Co. DUBLIN

PLANNING AREA = 0.12 Hectares

Rev	Date	Description	By	Chk	App
00	02/24	PLANNING APPLICATION	TJOC	POC	SG



CLIENT
**Comhairle Contae
 Fhine Gall**
 Fingal County Council

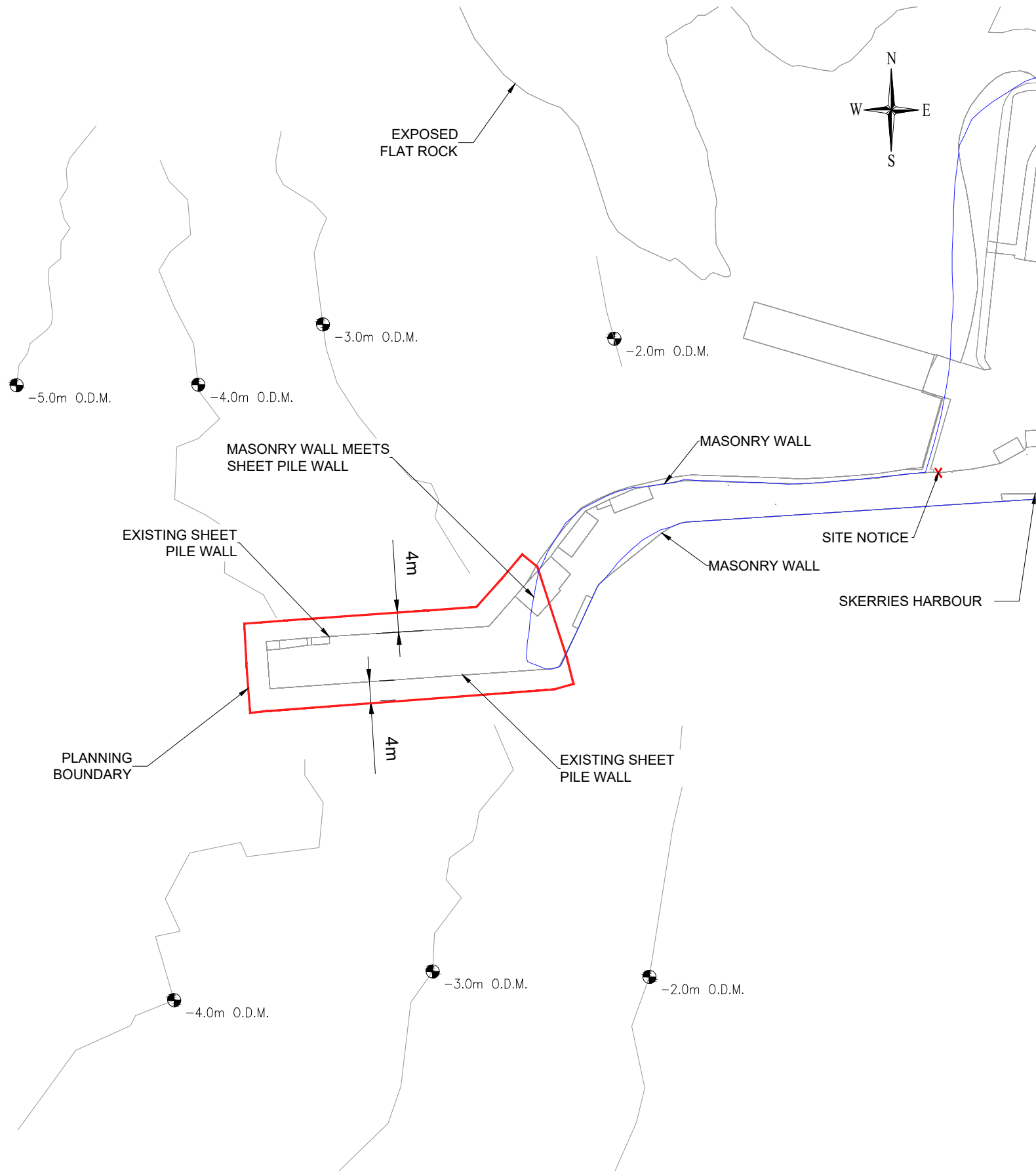
PROJECT
 SKERRIES HARBOUR
 SHEET PILE WALL REPLACEMENT

DRAWING TITLE
 SITE LOCATION MAP

STATUS
 PLANNING APPLICATION

Date: 14.11.23	Scale: 1:5,000	Drawn: TJOC	Chk: POC	App: SG
Project No: CM1400	Drg. No: CM1400-MA-DR-01000			Rev: P01

Ordnance Survey Ireland Licence No. CYAL50322977
 © Ordnance Survey Ireland/Government of Ireland



SITE LOCATION PLAN
 Scale 1:1,000

GENERAL NOTES

Notes:

1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
2. ONLY DIMENSIONS SHOWN SHALL BE USED. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
4. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.

LEGEND:

- PLANNING BOUNDARY
- HIGH WATER MARK (CBS - NATIONAL MAPPING OPEN DATA PORTAL)
- X SITE NOTICE

SCALE 1:1,000
 MAP SHEETS: 2652-07
 ITM CENTREPOINT
 CO-ORDINATES:
 725260, 761193
 DEVELOPMENT ADDRESS:
 SKERRIES HARBOUR
 Co. DUBLIN

Ordnance Survey Ireland Licence No. CYAL50322977

© Ordnance Survey Ireland/Government of Ireland

Rev	Date	Description	By	Chk	App
00	02/24	PLANNING APPLICATION	TJOC	POC	SG



CLIENT
Comhairle Contae Fhine Gall
 Fingal County Council

PROJECT
 SKERRIES HARBOUR
 SHEET PILE WALL REPLACEMENT

DRAWING TITLE
 SITE LOCATION PLAN

STATUS	PLANNING APPLICATION	SUITABILITY	—
--------	----------------------	-------------	---

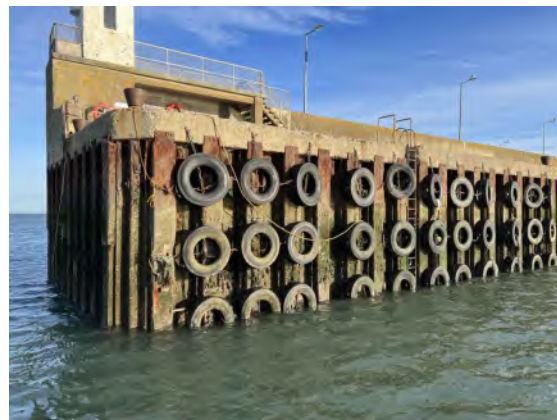
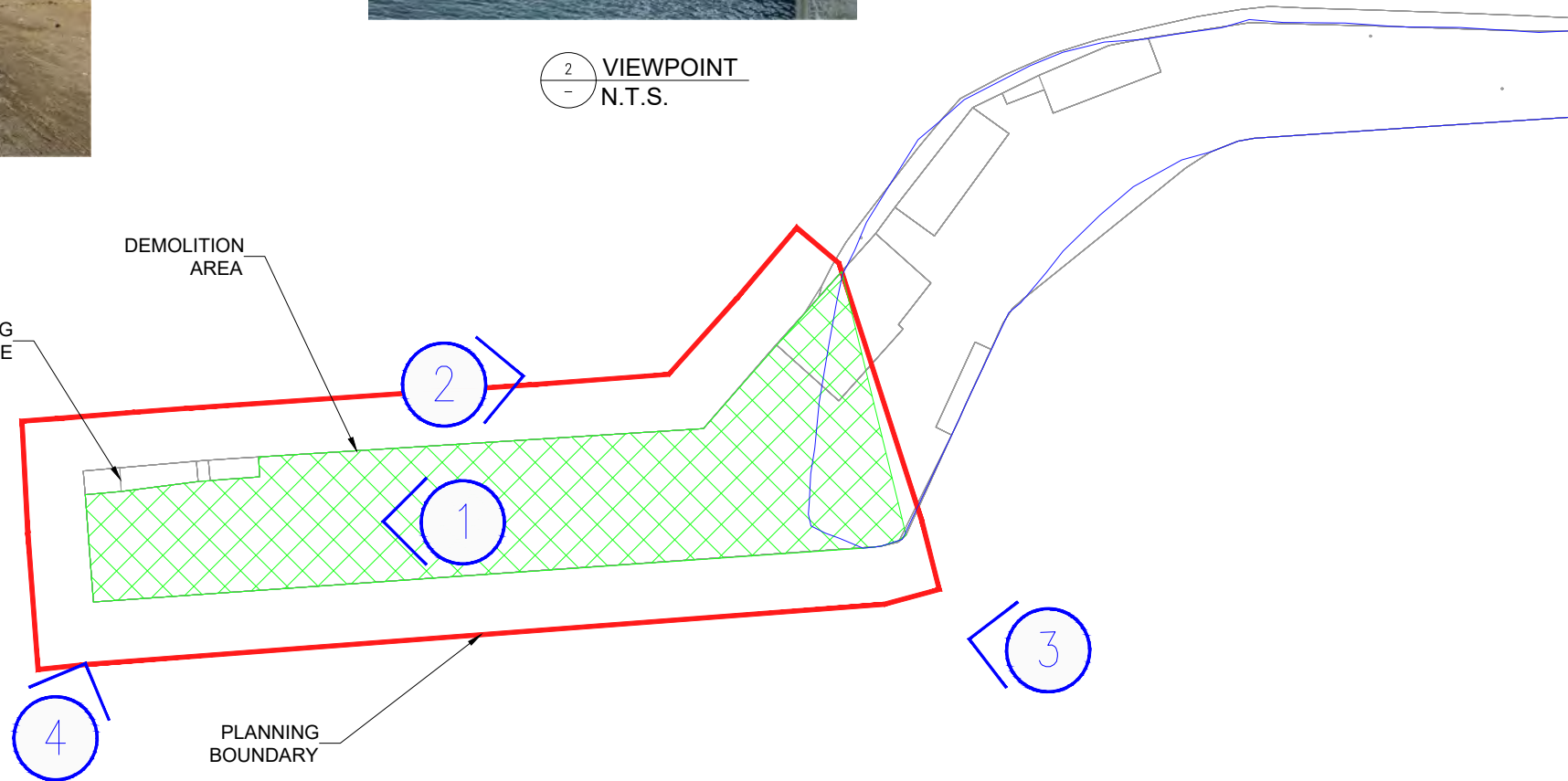
Date: 14.11.23	Scale: 1:1,000	Drawn: TJOC	Chk: POC	App: SG
Project No: CM1400	Drg. No: CM1400-MA-DR-01002	Rev:	P01	



1 VIEWPOINT
- N.T.S.



2 VIEWPOINT
- N.T.S.



4 VIEWPOINT
- N.T.S.



3 VIEWPOINT
- N.T.S.

DEMOLITION PLAN
Scale 1:500

GENERAL NOTES

Notes:

1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
2. ONLY DIMENSIONS SHOWN SHALL BE USED. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
4. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.

LEGEND:

- PLANNING BOUNDARY
- HIGH WATER MARK (CBS - NATIONAL MAPPING OPEN DATA PORTAL)
- DEMOLITION AREA

Ordnance Survey Ireland Licence No. CYAL50322977

© Ordnance Survey Ireland/Government of Ireland

00	02/24	PLANNING APPLICATION	TJOC	POC	SG
Rev	Date	Description	By	Chk	App



CLIENT

Comhairle Contae
Fine Gall
Fingal County
Council



PROJECT

SKERRIES HARBOUR
SHEET PILE WALL REPLACEMENT

DRAWING TITLE

DEMOLITION PLAN

STATUS

PLANNING APPLICATION

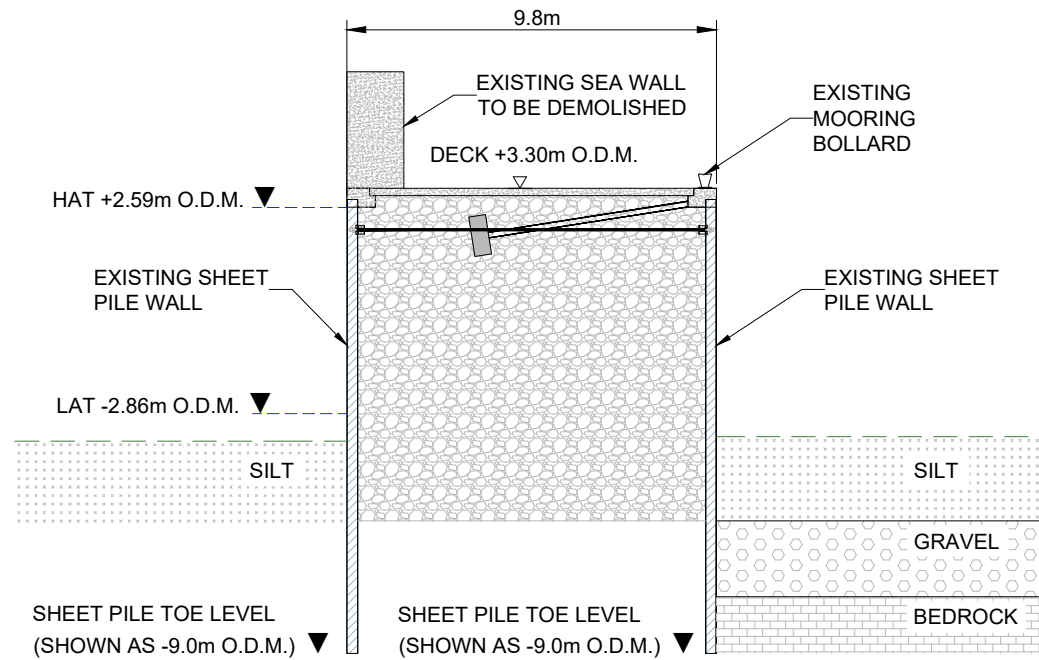
SUITABILITY

—

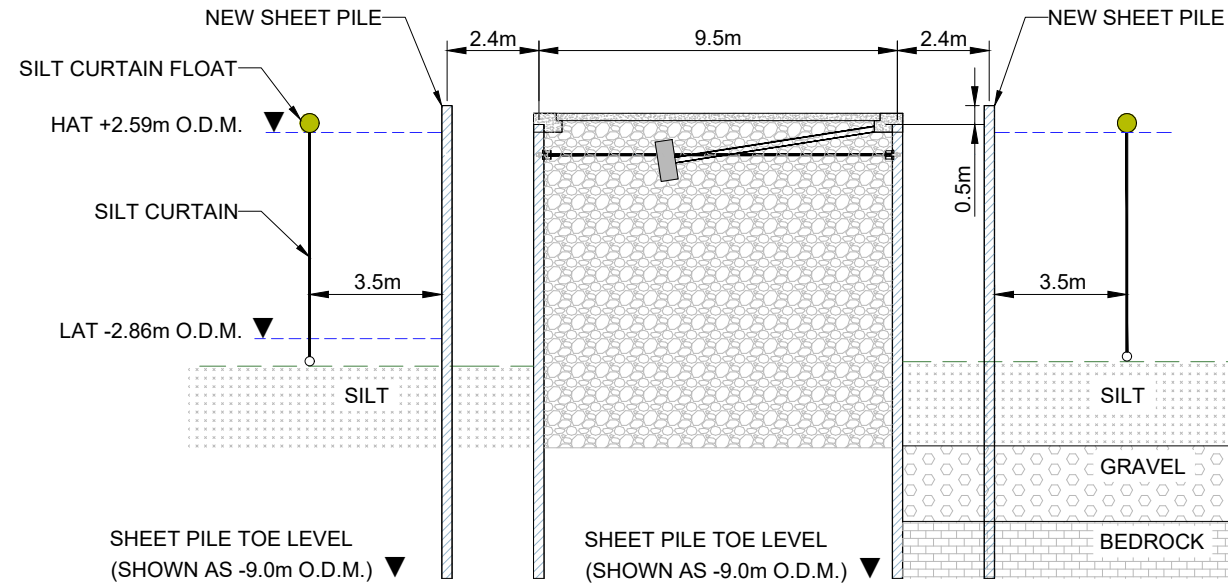
Date: 14.11.23	Scale: 1:500	Drawn: TJOC	Chk: POC	App: SG
Project No: CM1400	Drg. No: CM1400-MA-DR-01003			Rev: P01

Notes:

1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
2. ONLY DIMENSIONS SHOWN SHALL BE USED. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
4. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.



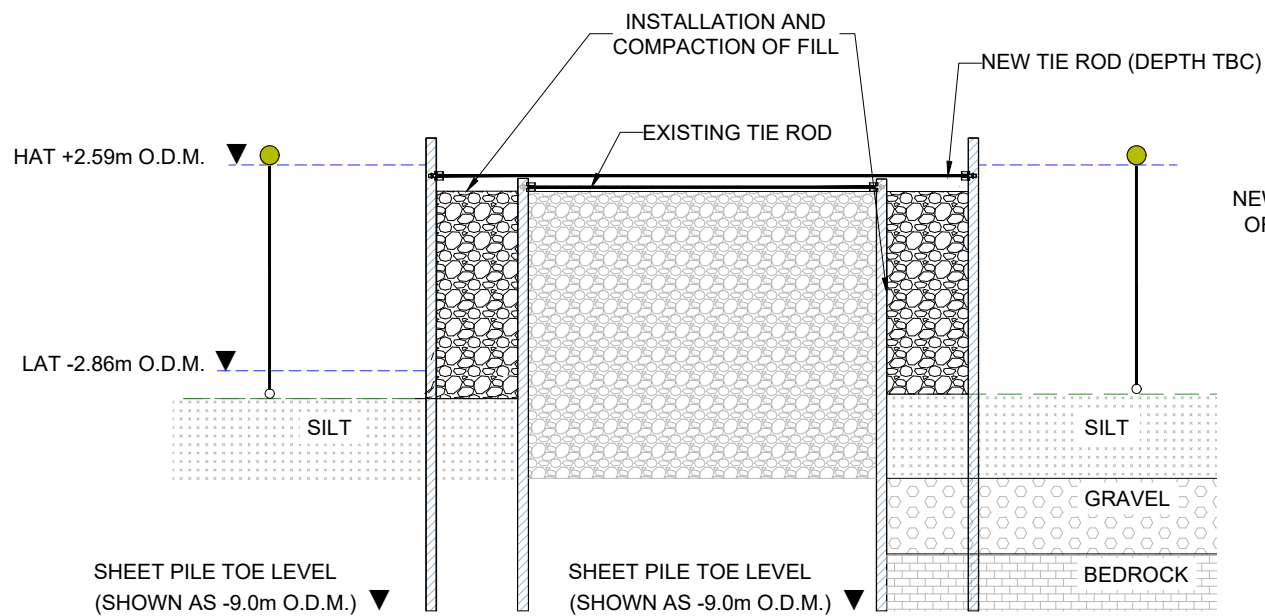
○ TYPICAL CROSS SECTION THROUGH EXISTING PIER
○ Scale 1:200



○ PHASE 1
○ Scale 1:200

PHASE 1;

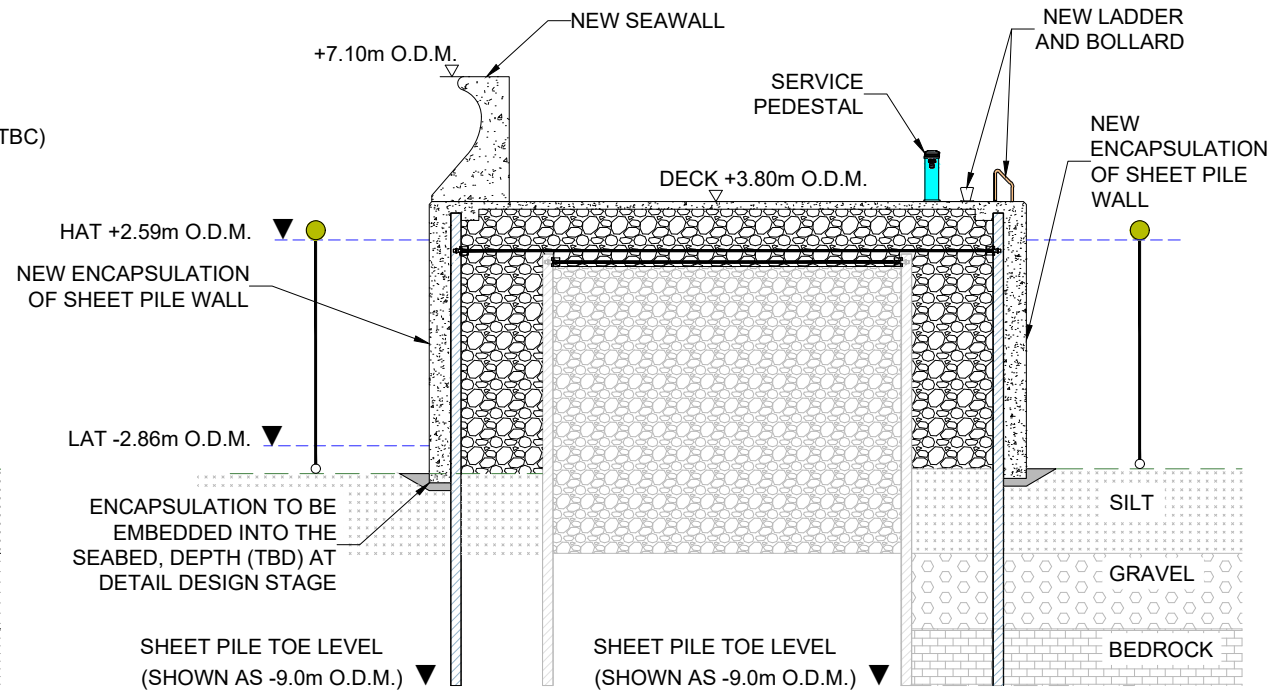
1. INSTALLATION OF SILT CURTAIN.
2. REMOVAL OF EXISTING SEAWALL.
3. INSTALLATION OF NEW SHEET PILES.



○ PHASE 2
○ Scale 1:200

PHASE 2;

1. TRENCHES WILL BE DEVELOPED BY REMOVING THE EXISTING CAPPING BEAM AND DECK AT LOCATIONS OF NEW TIE RODS.
2. INSTALLATION AND COMPACTION OF FILL BETWEEN TIE RODS, DEAD MAN ANCHORS, NEW SHEET PILES AND EXISTING SHEET PILES UP TO THE ANCHOR LEVEL.
3. REMOVAL OF CAPPING BEAM AND DECK AT SPECIFIC LOCATIONS TO INSTALL THE NEW TIE RODS CONNECTING THE NEW SHEET PILE WALL.



○ PHASE 3
○ Scale 1:200

PHASE 3;

1. INSTALLATION AND COMPACTION OF FILL MATERIAL FROM TIE ROD TO UNDERSIDE OF DECK.
2. THE ENCAPSULATION OF THE SHEET PILES AND POURING OF THE NEW DECK. (NOTE: CONCRETE TO BE POURED BELOW EXISTING SEA BED)
3. INSTALLATION OF NEW BOLLARDS, LADDERS AND SERVICE PEDESTAL.
4. INSTALLATION OF NEW SEAWALL ON DECK.

00	01/24	PLANNING APPLICATION	TJOC	POC	SG
Rev	Date	Description	By	Chk	App



CLIENT

Comhairle Contae
Fine Gall
Fingal County
Council



PROJECT

SKERRIES HARBOUR
SHEET PILE WALL REPLACEMENT

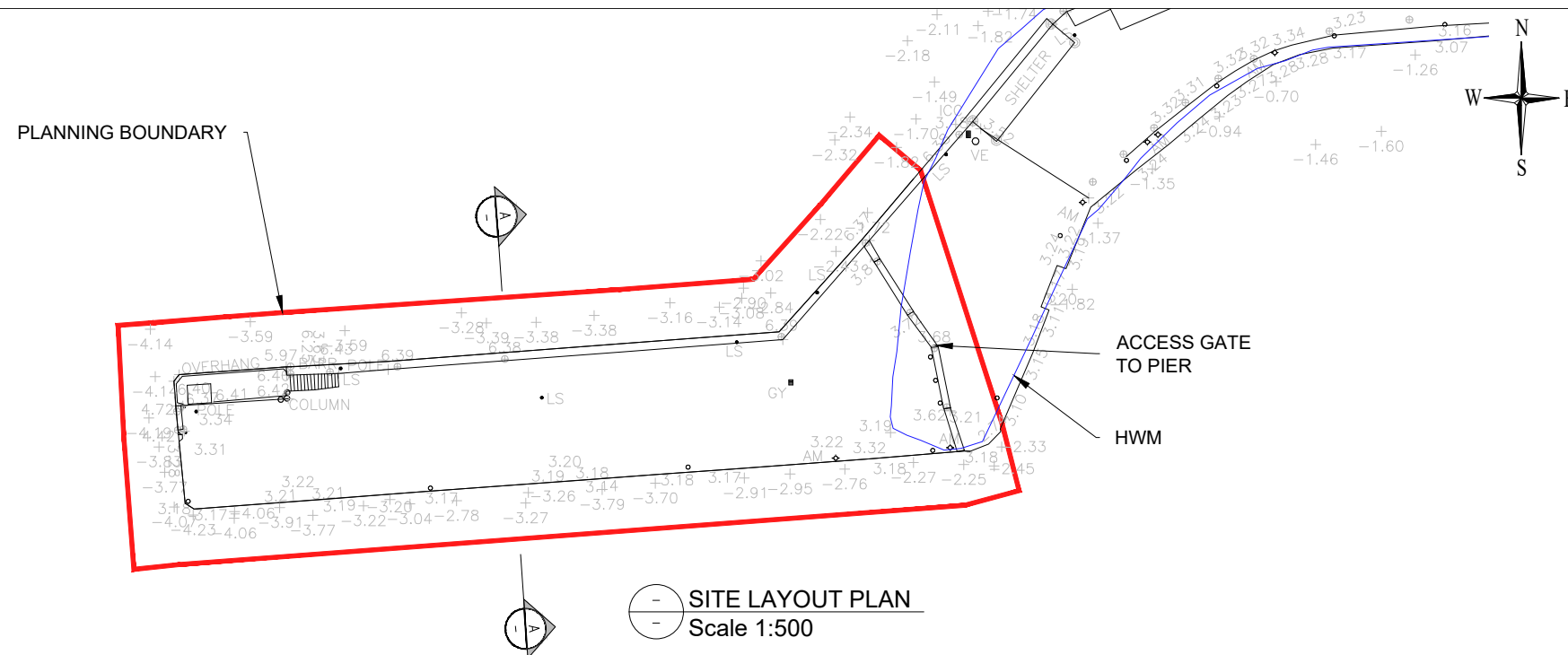
DRAWING TITLE

DEMOLITION PLAN AND
CONSTRUCTION SEQUENCE

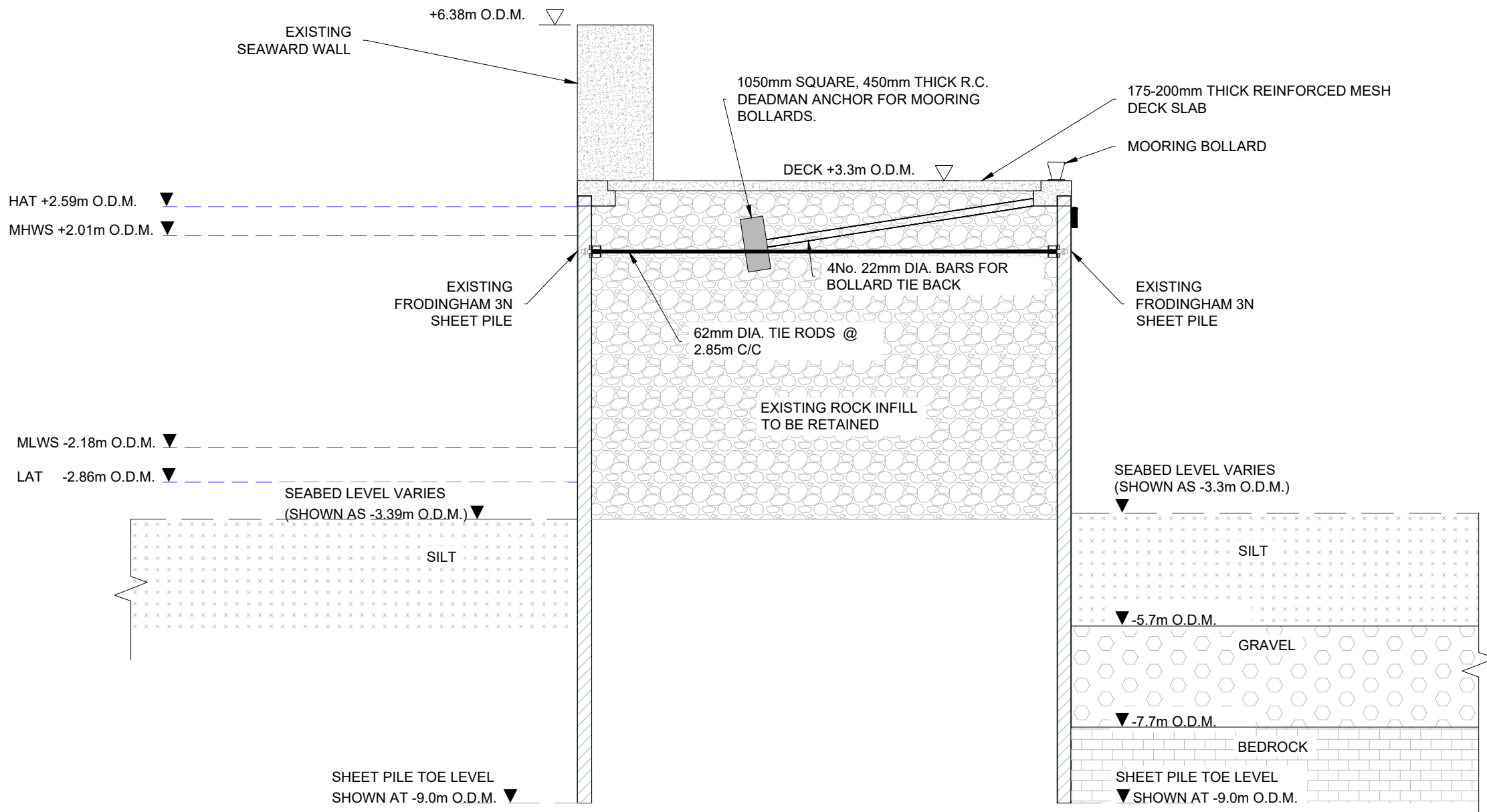
STATUS	PLANNING APPLICATION	SUITABILITY	-
--------	----------------------	-------------	---

Date: 14.11.23	Scale: 1:200	Drawn: TJOC	Chk: POC	App: SG
----------------	--------------	-------------	----------	---------

Project No: CM1400	Drg. No: CM1400-MA-DR-01004	Rev: P01
--------------------	-----------------------------	----------



SITE LAYOUT PLAN
Scale 1:500



EXISTING SECTION
Scale 1:100

GENERAL NOTES

- Notes:**
1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
 2. ONLY DIMENSIONS SHOWN SHALL BE USED. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
 3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
 4. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.
 5. ALL LEVELS ARE IN METERS AND TO ORDNANCE DATUM MALIN (O.D.M.).

- LEGEND:**
- PLANNING BOUNDARY
 - HIGH WATER MARK (CBS - NATIONAL MAPPING OPEN DATA PORTAL)

Ordnance Survey Ireland Licence No. CYAL50322977
© Ordnance Survey Ireland/Government of Ireland

P01	02/24	PLANNING APPLICATION	TJOC	POC	SG
Rev	Date	Description	By	Chk	App



CLIENT
Comhairle Contae Fine Gall
Fingal County Council



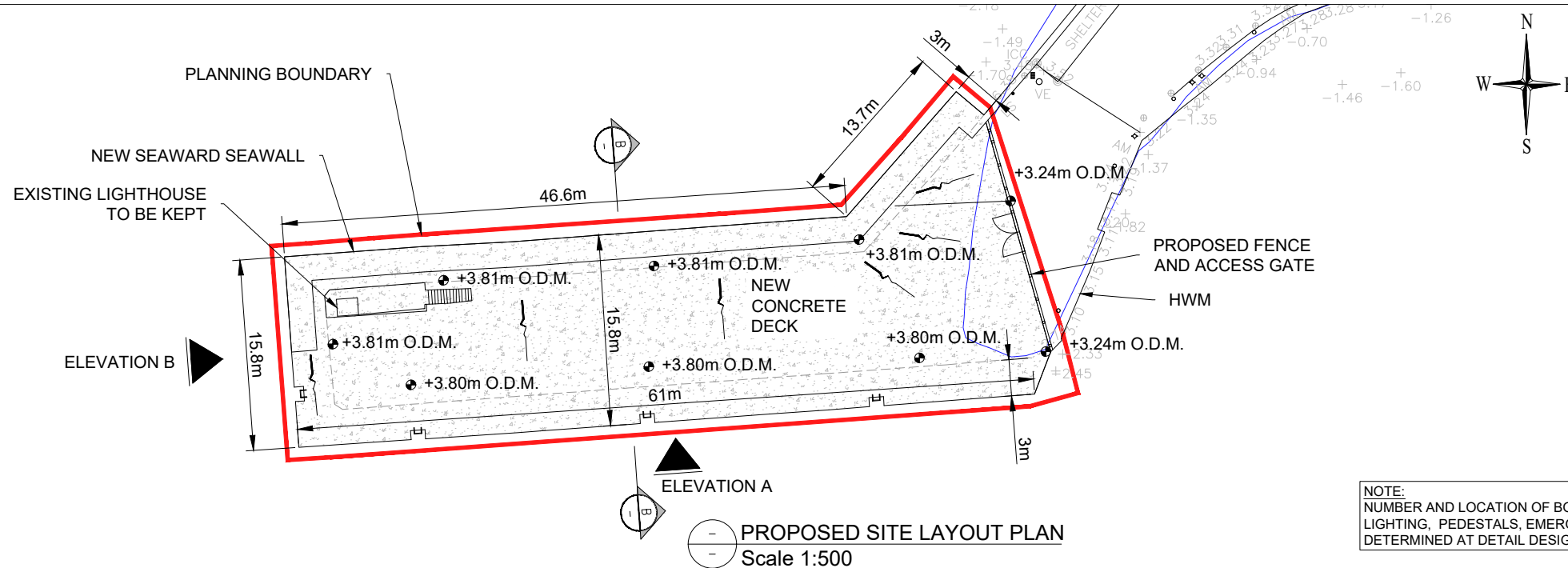
PROJECT
SKERRIES HARBOUR
SHEET PILE WALL REPLACEMENT

DRAWING TITLE
EXISTING SITE LAYOUT AND SECTION A

STATUS
PLANNING APPLICATION

SUITABILITY
—

Date: 14.11.23	Scale: AS SHOWN	Drawn: TJOC	Chk: POC	App: SG
Project No: CM1400	Drg. No: CM1400-MA-DR-01100	Rev: P01		

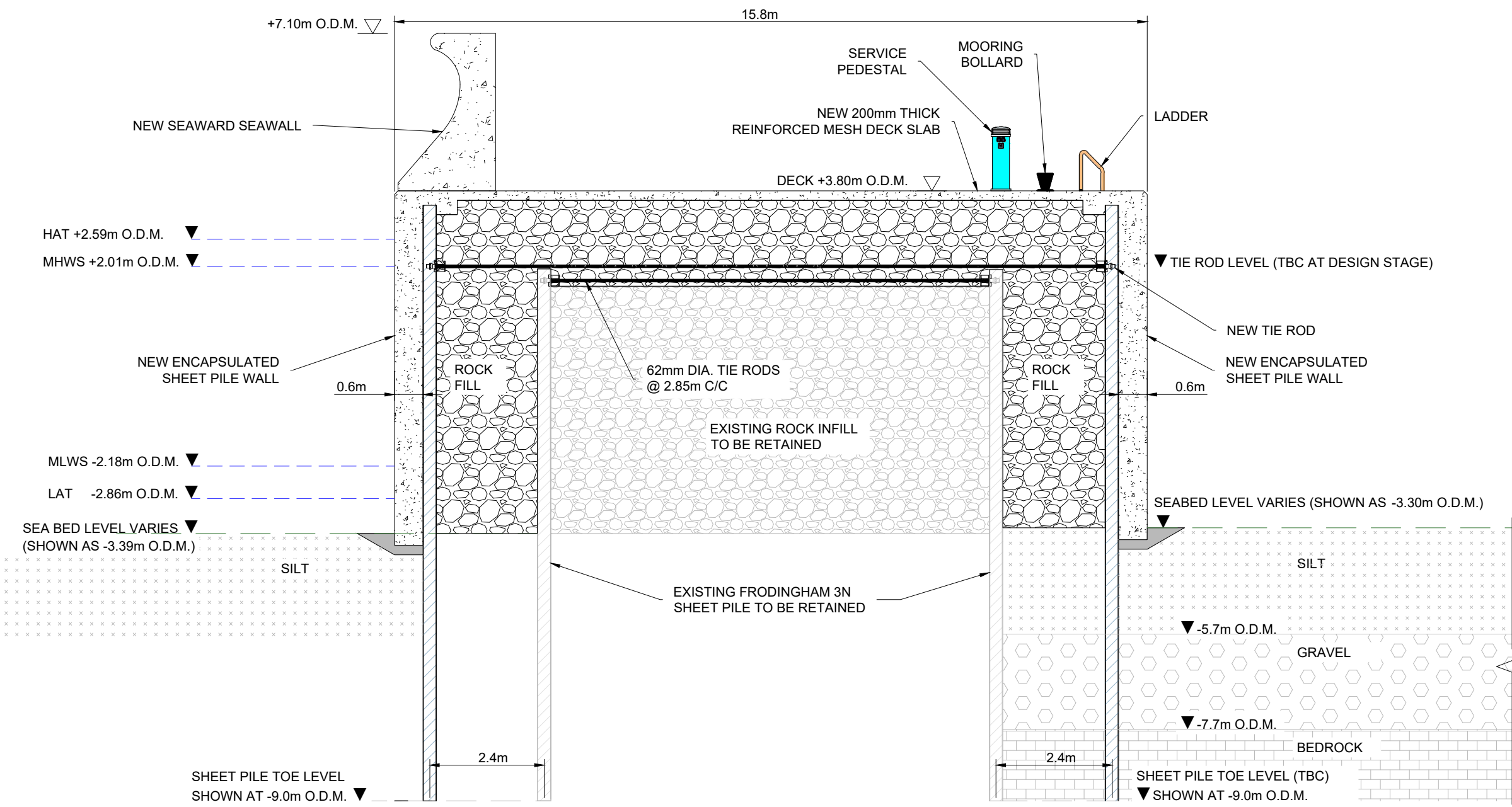


NOTE:
NUMBER AND LOCATION OF BOLLARDS, LADDERS,
LIGHTING, PEDESTALS, EMERGENCY PEDESTALS TO BE
DETERMINED AT DETAIL DESIGN STAGE.

GENERAL NOTES

- Notes:
1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
 2. ONLY DIMENSIONS SHOWN SHALL BE USED. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
 3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
 4. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.
 5. ALL LEVELS ARE IN METERS AND TO ORDNANCE DATUM MALIN (O.D.M.).

- LEGEND:
- PLANNING BOUNDARY
 - HIGH WATER MARK (CBS - NATIONAL MAPPING OPEN DATA PORTAL)



PROPOSED SECTION
Scale 1:100

Ordnance Survey Ireland Licence No. CYAL50322977
© Ordnance Survey Ireland/Government of Ireland

P01	02/24	PLANNING APPLICATION	TJOC	POC	SG
Rev	Date	Description	By	Chk	App



CLIENT
Comhairle Contae Fine Gall
Fingal County Council

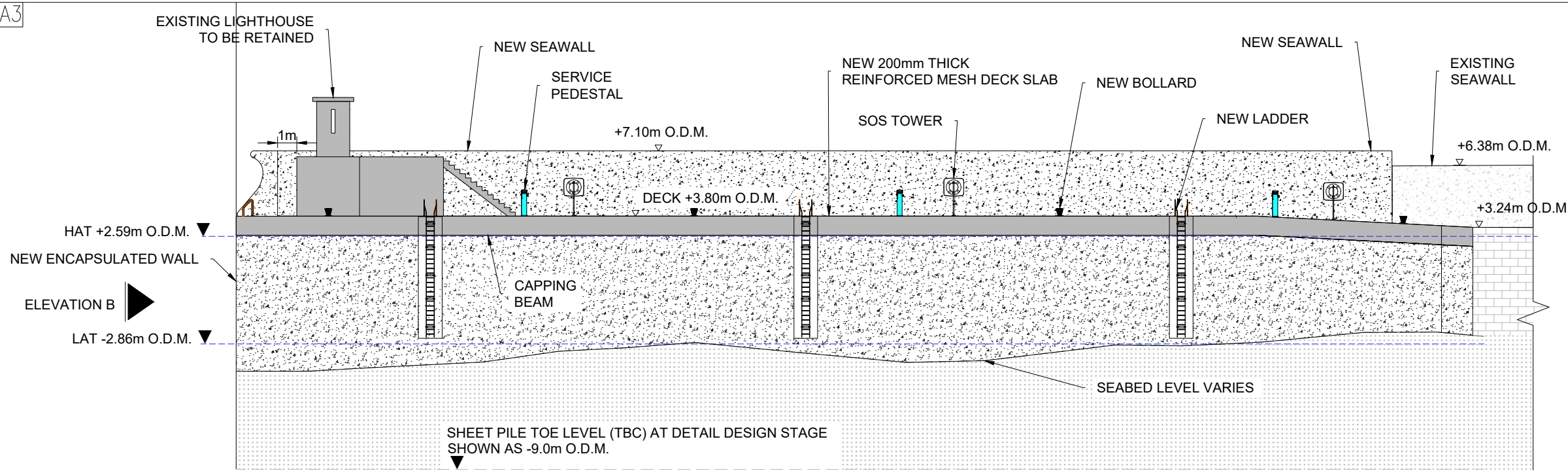
PROJECT
SKERRIES HARBOUR
SHEET PILE WALL REPLACEMENT

DRAWING TITLE
PROPOSED SITE LAYOUT AND SECTION B

STATUS
PLANNING APPLICATION

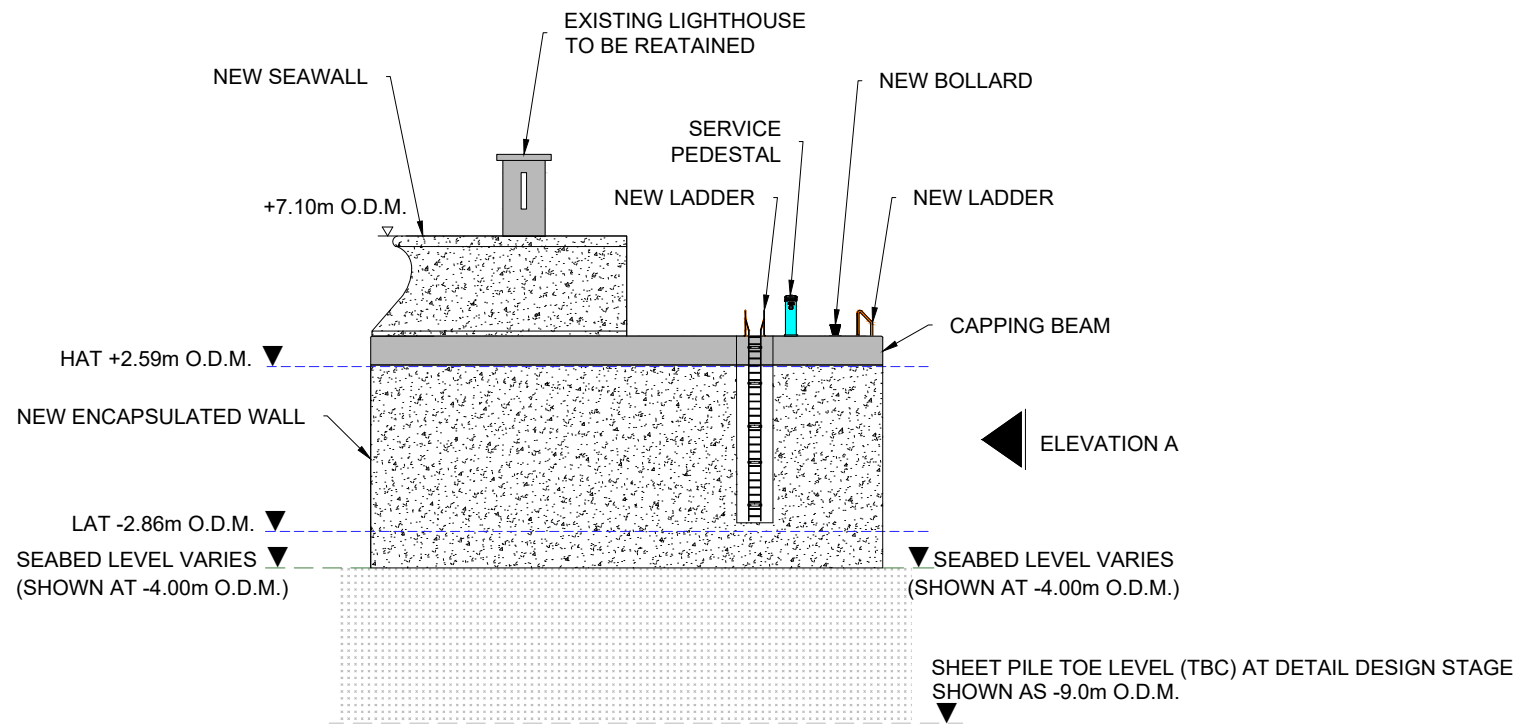
Date: 14.11.23	Scale: AS SHOWN	Drawn: TJOC	Chk: POC	App: SG
Project No: CM1400	Drg. No: CM1400-MA-DR-01101	Rev: P01		

A3



PROPOSED ELEVATION A
Scale 1:250

NOTE:
NUMBER AND LOCATION OF BOLLARDS, LADDERS,
LIGHTING, PEDESTALS, EMERGENCY PEDESTALS TO BE
DETERMINED AT DETAIL DESIGN STAGE.



PROPOSED ELEVATION B
Scale 1:250

GENERAL NOTES

Notes:

1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
2. ONLY DIMENSIONS SHOWN SHALL BE USED. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
4. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.
5. ALL LEVELS ARE IN METERS AND TO ORDNANCE DATUM MALIN (O.D.M.).

Ordnance Survey Ireland Licence No. CYAL50322977

© Ordnance Survey Ireland/Government of Ireland

00	02/24	PLANNING APPLICATION	TJOC	POC	SG
Rev	Date	Description	By	Chk	App



CLIENT

Comhairle Contae
Fine Gall
Fingal County
Council



PROJECT

SKERRIES HARBOUR
SHEET PILE WALL REPLACEMENT

DRAWING TITLE

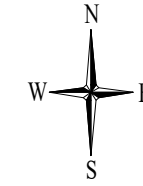
PROPOSED ELEVATIONS A & B

STATUS
PLANNING APPLICATION

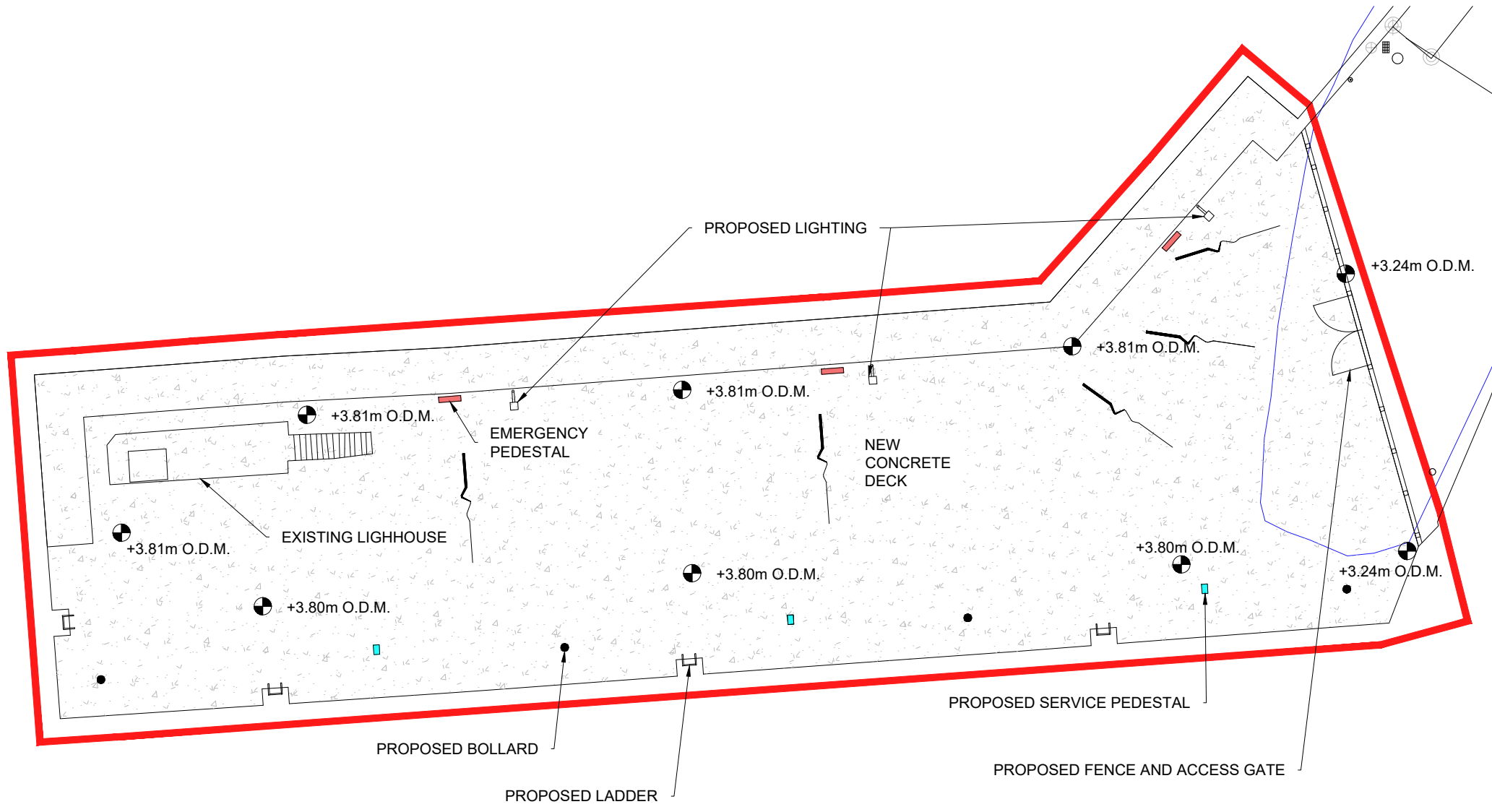
SUITABILITY
-

Date: 14.11.23 Scale: AS SHOWN Drawn: TJOC Chk: POC App: SG

Project No: CM1400 Drg. No: CM1400-MA-DR-01102 Rev: P01



NOTE:
NUMBER AND LOCATION OF BOLLARDS, LADDERS,
LIGHTING, PEDESTALS, EMERGENCY PEDESTALS TO BE
DETERMINED AT DETAIL DESIGN STAGE.



PROPOSED SERVICES PLAN
Scale 1:250

GENERAL NOTES

Notes:

1. THIS DRAWING IS TO BE READ WITH ALL OTHER AYESA DRAWINGS, SPECIFICATIONS AND ANY OTHER RELEVANT INFORMATION.
2. ONLY DIMENSIONS SHOWN SHALL BE USED. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.
3. ALL DRAWINGS ARE THE PROPERTY OF AYESA.
4. THIS DRAWING IS FOR PLANNING PURPOSE ONLY.
5. ALL LEVELS ARE IN METERS AND TO ORDNANCE DATUM MALIN (O.D.M.).

LEGEND:

- PLANNING BOUNDARY
- HIGH WATER MARK (CBS - NATIONAL MAPPING OPEN DATA PORTAL)

Ordnance Survey Ireland Licence No. CYAL50322977
© Ordnance Survey Ireland/Government of Ireland

P01	02/24	PLANNING APPLICATION	TJOC	POC	SG
Rev	Date	Description	By	Chk	App



CLIENT

**Comhairle Contae
Fine Gall**
Fingal County
Council

PROJECT
SKERRIES HARBOUR
SHEET PILE WALL REPLACEMENT

DRAWING TITLE
PROPOSED SERVICES PLAN

STATUS	PLANNING APPLICATION	SUITABILITY	—
--------	----------------------	-------------	---

Date: 14.11.23	Scale: AS SHOWN	Drawn: TJOC	Chk: POC	App: SG
Project No: CM1400	Drg. No: CM1400-MA-DR-01103	Rev: P01		

Appendix E. Underwater Archaeology Impact Assessment

Underwater Archaeology Impact Assessment for Skerries Harbour Pier Wall Upgrade



Archaeological
Management Solutions



Prepared for Ayesa on behalf of Fingal County Council

By Dr Caroline McGrath and Dr Steve Lancaster

February 2024

TITLE PAGE

AMS Job No.: J3472

Project Name: Skerries Harbour Pier Wall Upgrade

Client Name: Ayesa on behalf of Fingal County Council

Townland Name(s): Townparks

Grid Reference (ITM): 725292, 761130

Report Status/Revision: v0.2

Revision Date: 9 February 2024

Report Authors: Dr Caroline McGrath and Dr Steve Lancaster

Technical Reviewer: Dr Dan Atkinson

Report Editor: Anne-Marie Hardy

Approved By: Dr Dan Atkinson

File Name: J3472_SkerriesHarbourUpgradeUAIv0.3

AMS Cultural Heritage Consultancy Limited trading as Archaeological Management Solutions

Company Registration No. 721173

Fahy's Road, Kilrush, Co. Clare. V15 C780

T +353 (0)65 9062 878

www.ams-consultancy.com

Disclaimer

The results, conclusions and recommendations contained within this report are based on information available at the time of its preparation. Whilst every effort has been made to ensure that all relevant data have been collated, the authors and AMS accept no responsibility for omissions and/or inconsistencies that may result from information becoming available subsequent to the report's completion.

© AMS Cultural Heritage Consultancy Limited 2024. The concepts and information contained in this document are the property of AMS Cultural Heritage Consultancy Limited trading as Archaeological Management Solutions (AMS). Use or copying of this document in whole or in part without the written permission of AMS constitutes an infringement of copyright.



Executive Summary

Archaeological Management Solutions (AMS) have been engaged by Ayesa on behalf of Fingal County Council (FCC) to undertake an Underwater Archaeological Impact Assessment (UAIA) for the proposed construction of a new pier wall 3m in front of the existing steel section of the sheet pile pier wall.

The masonry section of the pier, originally constructed in the eighteenth century, is a Protected Structure (RPS 183/NIAH 11311001). In the late 1960s the pier was extended with a 60m sheet pile wall which has been subject to severe corrosion and nearing its end of design life.

The purpose of this UAIA is to undertake a desk-top study and analysis of recorded archaeological and other cultural heritage sites that lie within the proposed development site and surrounding study area with a view to informing an appropriate strategy to avoid/mitigate any likely impacts that are identified. Previously recorded cultural heritage sites in proximity to the proposed works have also been identified where relevant.

The desk-top study has confirmed that there are no known recorded wrecks within the study area. The assessment has identified **low** potential for submerged prehistoric finds and deposits to be encountered within the proposed development site.

No direct impacts arising from the proposed development are predicted on any known/recorded Maritime and Aviation Archaeology within the proposed development. This UAIA finds that there is **low** potential for unknown Maritime Archaeology Assets, and **negligible** potential for Aviation Archaeology Assets to be encountered within the proposed development site which could be directly and negatively impacted by the proposed development.

In light of the results of the assessment, mitigation measures have been recommended for the pre-trench, operational, and post-trenched phases for the consideration of the Underwater Archaeology Unit, National Monuments Service.

Recommendations are subject to the agreement of the National Monuments Service of the Department of Housing, Local Government and Heritage, the National Museum of Ireland and the local planning authority where required and should only be carried out in accordance with the necessary approvals. Please note that the statutory and local authorities may issue alternative and/or additional recommendations/conditions.

Table of Contents

1	Introduction	8
1.1	Project Background	8
1.2	Purpose and Scope of this Assessment	8
1.3	Proposed Works	8
2	Legislation, Policy, and Guidance	9
2.1	Legislation.....	9
2.1.1	Irish.....	9
2.1.2	International.....	9
2.2	Policy.....	9
2.3	Guidance.....	10
3	Methodology.....	12
3.1	Study Area	12
3.2	Desktop Study.....	12
3.2.1	Key Themes	13
3.2.2	Data Sources.....	13
3.2.3	Data Structure	14
3.2.4	Submerged Prehistory.....	15
3.2.5	Maritime and Aviation Archaeology	15
3.3	Assessment Criteria	16
3.4	Data Gaps and Limitations.....	17
4	Baseline Characterisation.....	18
4.1	Submerged Prehistory	18
4.1.1	Geological Baseline	18
4.1.2	Submerged Prehistoric Archaeological Potential.....	18
4.2	Maritime and Aviation Archaeology.....	19
4.2.1	Known/Recorded Maritime Sites	19
4.2.2	Seabed features derived from Geophysical Survey	19
4.2.3	Maritime and Aviation Archaeology Potential.....	19

4.2.4	Recorded Losses in the Shipwreck Inventory of Ireland	22
4.2.5	Previous archaeological Investigations	22
4.2.6	Recorded Archaeological Sites	22
4.2.7	Recorded/Listed Architectural Heritage	22
4.3	Cartographical Analysis	23
4.3.1	Ordnance Survey First-Edition Six-Inch Map (1843)	23
4.3.2	Ordnance Survey First-Edition 25-Inch Map (1908).....	24
5	Likely Impacts and Significance of Effect.....	25
5.1	Introduction.....	25
5.2	Impacts to Maritime and Aviation Archaeology Assets	25
5.3	Impacts to Submerged Prehistoric Assets.....	25
5.4	Potential for Positive Impacts on Cultural Heritage	26
6	Recommended Mitigation Measures.....	27
6.1	Introduction.....	27
6.2	Recommendations.....	27
6.2.1	Walkover Survey & Wade Survey.....	27
6.2.2	Geotechnical Survey.....	27
6.2.3	Preventative Measures	27
6.2.4	Archaeological Monitoring.....	27
6.2.5	Archaeological Exclusion Zones (AEZs)	27
	References.....	29
	Figures.....	31
	Appendix 1: Archaeological Heritage Inventory.....	41
	Appendix 2: Architectural Heritage Inventory	42

List of Tables

Table 1: Sources consulted for the assessment.....	14
Table 2: Recorded sites and monuments within the study area.	22
Table 3: Recorded/Listed Architectural Heritage sites within the study area.....	23

List of Figures

Figure 1: Site Location.....	32
Figure 2: Plan and section drawing of proposed scheme (drawing provided by Ayesa).....	33
Figure 3: Recorded wrecks in the vicinity of study area.	34
Figure 4: RMP/SMR sites within the study area.	35
Figure 5: Built heritage sites within the study area.	36
Figure 6: Extract from An actual survey of the county of Dublin (1762) by John Rocque.....	37
Figure 7: Proposed Section of Pier. Section at mean depth from low water to end of first length - c.1880.....	38
Figure 8: Extract from six-inch OS map (1843) showing location of proposed scheme.	39
Figure 9: Extract from 25-inch OS map (1908) showing location of proposed scheme	40

Abbreviations and Definitions

Abbreviation	Definition
ACA	Architectural Conservation Area
AEZ	Archaeological Exclusion Zone
AMS	Archaeological Management Solutions
DAHGI	Department of Arts, Heritage, Gaeltacht and the Islands (now known as Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media)
DHLGH	Department of Housing, Local Government and Heritage
DIER	Database of Irish Excavation Reports
EPA	Environmental Protection Agency
FCC	Fingal County Council
GIS	Geographical Information System
HEV	Historic Environment Viewer
ITM	Irish Transverse Mercator
NIAH	National Inventory of Architectural Heritage
NMS	National Monuments Service
NRA	National Roads Authority (now known as TII)
OS	Ordnance Survey
OSI	Ordnance Survey Ireland (now known as Tailte Éireann)
SMR	Sites and Monuments Record
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
RSL	Relative Sea Level
UAU	Underwater Archaeology Unit
UAIA	Underwater Archaeological Impact Assessment
UHO	Underwater Heritage Order
UKHO	UK Hydrographic Office
WIID	Wreck Inventory of Ireland Database
ZoN	Zone of Notification

Coordinate System

All grid coordinates in this report use the Irish Transverse Mercator (ITM) coordinate reference system unless otherwise stated.

1 Introduction

1.1 Project Background

Archaeological Management Solutions (AMS) have been engaged by Ayesa on behalf of Fingal County Council (FCC) to undertake an Underwater Archaeology Impact Assessment (UAIA) for proposed upgrades to the existing Skerries Harbour Pier Wall (Figure 1).

1.2 Purpose and Scope of this Assessment

The Government policy document *Framework and Principles for the Protection of the Archaeological Heritage* states that “where it is considered that a proposed development may (due to its location, size, or nature) have archaeological implications, then an archaeological assessment should be carried out” and defines archaeological assessment as an investigation aimed at:

- “gaining a better understanding of a known or suspected archaeological site or monument with particular reference to considering the implications of proposed development for such a site or monument” and
- “locating previously unidentified archaeological sites or monuments (or possible ones) prior to the commencement of development works with particular reference to considering the implications of proposed development for such sites or monuments” (DAHGI 1999, 25).

In line with this, the purpose of this current assessment is to provide a desk-based survey and analysis of recorded archaeological and other cultural heritage sites that lie within the proposed Dredge Areas with a view to informing an appropriate strategy to avoid/mitigate any likely impacts that are identified. Previously recorded cultural heritage sites in proximity to the proposed works have also been identified where relevant.

1.3 Proposed Works

The development works include constructing a new sheet pile pier wall 3m in front of the existing steel section of the sheet pile pier wall (Figure 2). The 60m steel section was an extension to the protected masonry limestone pier section, constructed in 1968. The sheet pile wall is currently condemned since March 2023 due to excessive corrosion damage.

2 Legislation, Policy, and Guidance

2.1 Legislation

2.1.1 Irish

The primary Legislation in place to protect wrecks and archaeological objects within Ireland's territorial waters and inland waterways is the *National Monuments (Amendment) Act 1987*. This legislation protects wrecks over 100 years old, and archaeological objects irrespective of their age. Wrecks or objects less than 100 years old can be protected through an Underwater Heritage Order (UHO) where they are deemed to be of such importance to merit protection.

Additional Legislation considered as part of this UAIA includes the following:

- *Foreshore Acts 1933 to 2011*
- *Maritime Area Planning Acts 2021 and 2022*
- *National Monuments Acts 1930 to 2014 (pending the enactment of the Archaeological Heritage and Miscellaneous Provisions Bill 2023)*
- *Merchant Shipping (Salvage and Wreck) Act 1993*
- *Planning and Development Act 2000 (as amended)*
- *Planning and Development Act 2023*

2.1.2 International

International Legislation considered as part of this UAIA includes the following:

- *UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001) (the Annex of which governing the conduct of archaeological investigations has been adopted by the Irish State – pending full ratification following the enactment of the Archaeological Heritage and Miscellaneous Provisions Bill 2023)*
- *UN Convention for the Law of the Sea (1982) (UNCLOS)*

2.2 Policy

The *National Marine Planning Framework (NMPF)* sets a clear direction for managing the seas around Ireland and aims to inform decision makers, users, and stakeholders towards a more strategic and efficient use of marine resources.¹

In relation to Heritage Assets, the aim of the Policy is to:

make sure proposals do not have a detrimental impact on marine and coastal heritage assets and to extend consideration to those assets that are, or have the potential to become, significant. It will make

¹ <https://www.gov.ie/en/publication/60e57-national-marine-planning-framework/> [Accessed: 19 January 2024].

sure that assets are considered in decision-making processes at the earliest stages in planning, and extends to those assets that are discovered during the course of developments.

Furthermore, *Policy 1* on p.87 states:

Proposals that demonstrate they will contribute to enhancing the significance of heritage assets will be supported, subject to the outcome of statutory environmental assessment processes and subsequent decision by the competent authority, and where they contribute to the policies and objectives of this NMPF. Proposals unable to contribute to enhancing the significance of heritage assets will only be supported if they demonstrate that they will, in order of preference:

- a) avoid,*
- b) minimise, or*
- c) mitigate harm to the significance of heritage assets, and*
- d) if it is not possible, to mitigate harm, then the public benefits for proceeding with the proposal must outweigh the harm to the significance of the heritage assets.*

2.3 Guidance

Although there is no specific guidance relating to harbour development in Irish territorial waters (including estuaries and inland waters), this UAIA has been compiled with reference to international, national, and industry specific standards and guidance. The key guidance as relevant to port development is *Dredging and Port Construction: Interactions with Features of Archaeological or Heritage Interest (WAWTI 2014)*.

Further guidance of relevance to the proposed trenching operation was carried out in line with the following (listed in chronological order of publication):

- *Framework and Principles for the Protection of the Archaeological Heritage* (DAHGI 1999)
- *Advice Notes on Current Practice* (EPA 2003)
- *Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes* (NRA 2005a)
- *Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes* (NRA 2005b)
- *Code of Practice for Seabed Development* (JNAPC 2006)
- *Conserving Ireland's Maritime Heritage – Proposing Policies and Priorities for the National Heritage* (Heritage Council 2006)
- *Architectural Heritage Protection: Guidelines for Planning Authorities* (DAHG 2011)
- *The Assessment and Management of Marine Archaeology in Port and Harbour Development* (Historic England 2016)
- *National Inventory of Architectural Heritage Handbook* (NIAH 2021)
- *A Living Tradition: A Strategy to Enhance the Understanding, Minding and Handing On of Our Built Vernacular Heritage* (DHLGH 2021)

- *Places for People: National Policy on Architecture* (DHLGH 2022)
- *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (EPA 2022)

3 Methodology

The study was divided into two main components: the collation of baseline data comprising a desktop study and the analysis of this data to determine any likely impacts.

For the purposes of this assessment, recorded wreck sites are noted with either the abbreviation WIID – Wreck Inventory of Ireland Database or UKHO – UK Hydrographic Office, and the relevant reference number, recorded archaeological sites are denoted with the abbreviation SMR – Sites and Monuments Record or RMP – Record of Monuments and Places and the relevant identification number.

3.1 Study Area

The study area for the proposed Pier Wall Upgrade includes a 500m buffer from the red-line boundary to assist in demonstrating the potential for unknown/unrecorded archaeology and cultural heritage to be present through reference to the wider archaeological context.

3.2 Desktop Study

The methodology for the first component comprised a desktop survey to identify all recorded and previously unrecorded cultural heritage assets within the search area for the proposed trenched areas along the length of the new wall and the channel. The sources listed in Table 1 below were consulted to cross-check and update the baseline. This component also included a high-level desktop review of other readily available information that can provide an indication of the cultural heritage potential within the area of the proposed development.

Inventories of the cultural heritage assets were compiled, drawing on data and information recorded, and supplemented through additional research. The suggested importance of the assets was considered in terms of being Negligible, Low, Medium or High for archaeological sites, and Local, Regional, National and International for architectural heritage sites, in accordance with the National Roads Authority (NRA) and EPA Guidelines (see below). Relative importance derives from a number of factors including current designation or listing (i.e. UHO, RMP, SMR, WIID, UKHO, RPS, NIAH, or none), preservation/condition and archaeological, architectural, historic, artistic, cultural, scientific, social or technical interest. These importance ratings are for assessment purposes only and professional judgement has been used to determine the importance of individual cultural heritage assets.

The Baseline Characterisation (see Section 4 below) places the study area into its wider spatial and temporal context, and where relevant previous archaeological investigations or research works have been conducted, summary detail of the relevant work is provided.

3.2.1 Key Themes

The key archaeological and cultural heritage themes assessed within this UAIA are classified in three categories. These include:

3.2.1.1 Submerged Prehistory

This theme considers submerged deposits of palaeoenvironmental potential that may be present in features such as palaeochannels, and artefacts derived from prehistoric activity such as evidence of tools and weapons.

3.2.1.2 Maritime Archaeology

This theme considers sites such as shipwrecks, parts there-of, and associated debris and material.

3.2.1.3 Aviation Archaeology

This theme considers aircraft crash sites and associated debris and material.

3.2.2 Data Sources

The desktop review aimed to identify, as far as reasonably practicable, the known and potential cultural heritage assets within the cultural heritage study area for the proposed trenching. The main sources consulted are detailed in Table 1.

Table 1: Sources consulted for the assessment.

Data	Source
Background Information	<ul style="list-style-type: none"> • <i>Fingal Development Plan 2023-2029</i>.² • Topographical/toponymic data: Lewis 1837;³ <i>Logainm.ie</i> (Placenames Database of Ireland); and <i>Townlands.ie</i> (Irish townlands data). • Cartography: first-edition six-inch (1843) and 25-inch Ordnance Survey (OS) (1908) maps via OSI's public viewer⁴(now Tailte Éireann). • Aerial & street views: Google Earth & Digital Globe;⁵ orthophotographs via OSI's public viewer; Bing images (QGIS Web Mapping Service); Google Street View. • Previous Archaeological Investigations: Database of Irish Excavation Reports (DIER) and TII Digital Heritage Collection Data⁶ Data.
Recorded Archaeological Sites	<ul style="list-style-type: none"> • Record of Monuments and Places (RMP) – statutory list of protected places and monuments, with accompanying constraints maps, published for Dublin in 1998. • Wreck Inventory of Ireland Database (WIID).⁷ • UK Hydrographic Office Database (UKHO). Wrecks and obstructions shapefile.⁸ • Historic Environment Viewer (HEV) – online database of information on sites and monuments based on the Sites and Monuments Record (SMR).⁹ The HEV provides information not only on those archaeological monuments included in the statutory RMP, but also in regard to many more which have been identified since the RMP was issued (DHLGH 2021b). • Lists of National Monuments in State Care: Ownership and Guardianship for County Dublin.¹⁰ • List of Preservation Orders held by the NMS, published in 2019.¹¹
Built Heritage Sites	<ul style="list-style-type: none"> • Fingal Record of Protected Structures (RPS).¹² • Fingal Architectural Conservation Area (ACA).¹³ • NIAH Building Survey and Survey of Historic Gardens and Designed Landscapes.¹⁴
Seabed Mapping	<ul style="list-style-type: none"> • Client report for survey undertaken in Skerries Harbour in 2006

3.2.3 Data Structure

Identified cultural heritage assets were digitally mapped using open-source Geographical Information System (GIS) software QGIS (version 3.28.15) which allows for the positional information from the

² Available at <https://www.fingal.ie/development-plan-2023-2029> [Accessed: 19 January 2024].

³ Lewis S. 1837. *A Topographical Dictionary of Ireland*. London: S. Lewis & Co. Available at: <https://www.libraryireland.com/topog/placeindex.php> [Accessed: 19 January 2024].

⁴ Available at: <https://webapps.geohive.ie/mapviewer/index.html/> [Accessed: 19 January 2024].

⁵ Available at: <https://maps.archaeology.ie/HistoricEnvironment/> [Accessed: 19 January 2024].

⁶ Available at: <https://excavations.ie/> and <https://repository.dri.ie/catalog/v6936m966> [Accessed: 19 January 2024].

⁷ Available at <https://www.archaeology.ie/underwater-archaeology/wreck-viewer> [Accessed: 19 January 2024].

⁸ Available at https://datahub.admiralty.co.uk/portal/apps/sites/?_gl=1*324088*_ga*MTE2NjYzNzUzNy4xNjk5ODgzNDQz*

sources listed above to be spatially analysed and cross-checked with current RMP, SMR, NIAH, and RPS datasets. The WIID was also checked, and this was cross referenced with the most recent UKHO data. The historical mapping and satellite imagery were further explored to identify all other structures and features of potential cultural heritage interest.

3.2.4 Submerged Prehistory

The baseline characterisation for submerged prehistory was based on a review of a number of sources, including geological mapping of seabed sediments, and solid geology and bathymetry from published sources, such as the Geological Survey of Ireland and INFOMAR.¹⁵ This assessment was further supported by the examination of models of past sea level change for this area of coastline. In addition, Geotechnical core log data obtained for parts of the study area were reviewed to identify deposits of geoarchaeological potential as part of the submerged prehistory baseline.

3.2.5 Maritime and Aviation Archaeology

The sources of data for maritime and aviation archaeology listed in Table 1 above have been collated and summarised in order to develop a baseline of marine archaeology for the study area, and the potential for encountering unknown shipwreck and aircraft crash sites.

The data obtained were reviewed and those located within the proposed development boundary or wider search area were extracted and compiled to form Tables of assets as part of the known maritime and aviation baseline.

[ga_8PTW8GJL1R*MTcwMTcwNjMyNy41LjAuMTcwMTcwNjMzMC4wLjAuMA..#/marine-data-portal/items?tags=GlobalWrecks](https://www.marine.ie/portal/items?tags=GlobalWrecks) [Accessed: 19 January 2024].

⁹ Available at: <https://maps.archaeology.ie/HistoricEnvironment/> [Accessed: 19 January 2024].

¹⁰ Available at: <https://www.archaeology.ie/sites/default/files/media/pdf/monuments-in-state-care-dublin.pdf> [Accessed: 19 January 2024].

¹¹ Available at: <https://www.archaeology.ie/sites/default/files/media/publications/po19v1-all-counties.pdf> [Accessed: 19 January 2024].

¹² Available at: https://www.fingal.ie/sites/default/files/2023-10/Appendices%2030.08.23_WEB.pdf [Accessed 09 February 2024].

¹³ Available at: https://www.fingal.ie/sites/default/files/2023-10/Appendices%2030.08.23_WEB.pdf [Accessed: 09 February 2024].

¹⁴ Available at: <https://www.buildingsofireland.ie/> [Accessed: 09 February 2024].

¹⁵ Available at: <https://www.infomar.ie/> [Accessed: 09 February 2024].

3.3 Assessment Criteria

Evaluation of impacts was carried out with reference to the published EPA Guidelines (2022)¹⁶ and the NRA guidelines for archaeological heritage (NRA 2005a) and architectural heritage (NRA 2005b), as outlined below. Likely impacts were categorised as one of three types in accordance with the NRA guidelines for archaeological heritage (NRA 2005a, 25) and architectural heritage (NRA 2005b, 21):

- **Direct Impact** — where a feature or site of archaeological or architectural heritage interest is physically impacted by the proposed development, which potentially entails the removal of part, or all, of the monument or feature. Sites or features that occurred within the redline boundary were assessed for potential direct negative effects;
- **Indirect Impact** — where a feature or site of archaeological or architectural heritage interest, or its setting, is located beyond the redline boundary but is in close proximity; or
- **No predicted impact** — where the proposed development does not adversely or positively affect a feature or site of archaeological or architectural heritage interest.

The quality of each predicted impact was classified as **Negative, Positive or Neutral**. Negative impacts include total or partial loss of a site, monument, structure or its attendant grounds, visual intrusion, severance, degradation of setting and/or amenity. Positive impacts include increased physical separation, reduced visual and noise intrusion, and enhancement of setting or amenity. Where no impact is predicted, the quality of impact is rated as Neutral (None). The predicted magnitude (level) of impact was rated as **Low, Medium, High, or Very High** (NRA 2005b, 32).

The predicted significance of effect was evaluated by comparing the predicted magnitude of impact with the suggested importance of the asset using the schedule and definitions of significance adapted from the NRA guidelines (NRA 2005a, 54). Significance of effect is summarised therein as:

- **Imperceptible** — an impact capable of measurement but without noticeable consequences;
- **Slight** — an impact which causes changes in the character of the environment which are not significant or profound and do not directly impact or affect an archaeological feature or monument;
- **Moderate** — where a change to the site is proposed which though noticeable, is not such that the archaeological integrity of the site is compromised, and which is reversible. This arises where an archaeological feature can be incorporated into a modern-day development without damage and that all procedures used to facilitate this are reversible;
- **Significant** — an impact which, by its magnitude, duration or intensity, alters an important aspect of the environment. An impact like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity and data about the archaeological feature/site;
- **Profound** — where mitigation would be unlikely to remove adverse effects. Reserved for

¹⁶ Available at: https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf [Accessed: 19 January 2024].

adverse, negative effects only. These effects arise where an archaeological site is completely and irreversibly destroyed by a proposed development.

3.4 Data Gaps and Limitations

The data used to compile this UAIA comprise primarily of various secondary sources and datasets. Key sources have been examined for the purposes of the assessment where available. It is assumed that the information within these sources is reasonably accurate. A site visit was not undertaken as part of this assessment.

4 Baseline Characterisation

4.1 Submerged Prehistory

4.1.1 Geological Baseline

The underlying solid geology of the study area consists of laminated blue-grey siltstones and sandstones of the Skerries Formation, dating to the Silurian Period (443.7 to 416.0 million years ago). The nearest mapped terrestrial Quaternary deposits are classified as Irish Sea Till derived from Lower Palaeozoic sandstones and shales, and it is likely that these form the underlying Quaternary deposits within the development area, with more recent mobile deposits in the form of silts and sands overlying the till.

Examination of historic core log data available from the Geological Survey of Ireland indicates the presence of medium dense clayey silty sand and gravel, very stiff gravelly silty clay and hard gravelly sandy clayey silt. The mixed and dense/stiff nature of these deposits suggests that some of the Quaternary deposits may be glacial till, which would be consistent with the nearest mapped terrestrial deposits. No emplaced/*in situ* deposits of organic matter, particularly peat, have been observed in the geotechnical data anywhere within the study area.

Historical changes in Relative Sea Level (RSL) have been modelled for the broader study area (Shennan, Bradley and Edwards 2018, Curve 80, Dublin). The more recent (from 5500 years BP) section of the modelled RSL curve is moderately constrained with data points. The earlier section of the curves has far fewer data points and is more reliant on the underlying formula of the glacio-isostatic adjustment model used. At around 11,000 years BP, RSL is modelled as having been at –23m. Initial rises in RSL were rapid, moving to 0m by 6,900 BP. The rate of rise in RSL slowed from this point, attaining +1m by circa 4, 500BP, with a gradual fall to current sea levels from that point.

4.1.2 Submerged Prehistoric Archaeological Potential

The entire area of the proposed development was entirely submerged from around 6,900 BP, and intertidal from around 7,500BP, during the later Mesolithic. The area of the proposed development is very limited; therefore, there is little chance of significant parts of natural features such as palaeochannels, which might include the remains of human activity in the form of fish traps, etc., to survive. It is unclear from the available data whether there are any surviving submerged land surfaces or whether these have been lost during inundation in the period from 7, 500 BP. The potential for surviving submerged prehistoric material within the area of the proposed development is assessed to be **low**.

4.2 Maritime and Aviation Archaeology

4.2.1 *Known/Recorded Maritime Sites*

No known recorded wrecks within the study area are included in the WIID or the most recent UKHO wrecks and obstructions data. The closest recorded wreck from the UKHO – the Lady Lorraine (UKHO ID 68166 – record only) was recorded c. 345m northwest of the study area.

4.2.2 *Seabed features derived from Geophysical Survey*

Although there are no raw geophysical datasets available, or recent geophysical survey results for review and inclusion in this UAIA, a report from a survey undertaken in 2006 by Hydrographic Surveys Limited was reviewed to check for anomalies of potential archaeological interest that may be present within the study area. The report included bathymetric and sub-bottom profiler survey across an area encapsulating the current study area, but did not include side-scan sonar or magnetometer survey (Hydrographic Surveys Ltd, 2006). Following the review of the report, no obvious anomalies of potential archaeological interest were identified within the substrates, where observation of uneven profiles were likely indicative of natural geology comprising lenses of stones and boulders interspersed with coarser gravels, cobbles and sand. The thickness of the overburden to bedrock across the survey area ranged from 3m to 7m (Hydrographic Surveys Ltd 2006, 9-10).

4.2.3 *Maritime and Aviation Archaeology Potential*

4.2.3.1 **Prehistoric Period (c.7000BC–AD400)**

Evidence for Mesolithic activity (7000–4000 BC) in Ireland tends to be concentrated around or in close proximity to water. The archaeological record of this period presents as the remains of temporary settlements, fishing technology, or the debitage of flint implements. Mesolithic society is believed to have been the preserve of small family-based groups of nomadic hunter-gathers and fishermen. Large quantities of prehistoric lithics have been found on the nearby Lambay Island, some of which can be dated to the Later Mesolithic period, but many of which derived from the Neolithic period (Dolan & Cooney 2010, 22). Collections of flint debitage dating from the Mesolithic period onward (DU005-016002-; DU005-017002-; DU005-060----) were discovered in Barnageeragh townland to the west of Skerries. Later Mesolithic finds were also recorded in Townparks, Skerries (Corcoran 2009, 37; NMI files P1949:51 and 1990:87-92).

The Neolithic period (4000–2500BC) is typically associated with Ireland's first farmers; the century between c.3800–3700BC saw a period of rapid expansion across the country, with the archaeological imprint of rectangular houses being a common settlement feature of this period. Evidence for Neolithic settlement in this area is attested by flint assemblages and stone tools found in

Barnageeragh (Stout & Stout 1992, 7), Baldongan (NMI files 1989:74, Skerries village (NMI files 1938:8596) and Townparks (NMI files 1974:45; 1975:8; 1976:544; 1987:73).

The Bronze Age (2500–500BC) is typically associated with the introduction and development of metal technology and the use of metal tools, and the emergence of a distinct warrior elite class defined by high-status weaponry towards the end of the period. *Fulachtaí fia* are amongst the most common site types in Ireland and are characterised by a mound or mounds of heat-shattered stone discarded from the process of heating water in a subsoil-cut trough. Generally found in low-lying ground where the water table is close to the surface, the often wood-lined troughs filled naturally with water. The use-functions of *fulachtaí fia* were many and varied, from cooking to bathing places to brewing sites and sweat houses. There are a number of *fulachtaí fia* in the wider landscape surrounding the study area, comprising DU005-148----, DU005-149---- and DU005-150---- in Townparks townland.

Settlement and continued use of the landscape throughout the Iron Age is evidenced by a number of coastal promontory forts close to the study area including Shenick's Island (DU005-116----), Drumanagh (DU008-006001-) Lambay Island (DU009-001001-; DU009-001013- and DU009-001026-) and Rush (DU008-090----).

4.2.3.2 Early Medieval Period (AD400–1100)

The beginning of the early medieval period saw the arrival of Christianity, the gradual conversion of the population, and the flourishing of Irish monasteries. St. Patrick is said to have landed on Holmpatrick (*Inis Pátraic*) (DU005-019----) off the coast of Skerries around 432AD (Walsh 1888, 5).

By the sixth century, the north of Dublin formed part of the kingdom of Brega which was under the control of Síl nÁedo Sláine, a sept of the Southern Uí Néill (Byrne 2004, 94). The name Skerries derived from the Danish *skere* meaning 'a group of rocky islands'. It is believed that a monastic settlement was founded on Holmpatrick by St. Mo Chonna (d. 684) (Kelly 1857, 55). Following a Viking raid in 798 AD, monks from Holmpatrick established a monastic site at Carrickbrennan, which they dedicated to their bishop (English 1987, 2).

In terms of archaeological sites, ringforts are the most numerous site type from this period. Ringforts are defended homesteads of relatively wealthy farmers, often managed by kings and sub-kings, and are generally dated to the early medieval period (AD 400–1100), though some remained in use until much later. In the wider landscape, there are a small number of ringforts including DU005-026---- in Ardla townland and DU005-145001- in Barnageeragh townland.

4.2.3.3 Medieval Period (AD1100–1600)

Terrestrial archaeological evidence for the medieval period is partly characterised by castles or castle sites. The beginning of this period in Ireland is marked by the arrival and settlement by the Anglo-Normans and subsequent interaction with the native Gaelic population. New settlement forms — including many of our surviving towns, systems of landscape divisions based on the manorial systems, and changes in economic/agricultural practices — are typically associated with this period.

In 1120, a priory of Canons Regular of St. Augustine was established on Inispatrick (Scantlebury 1960, 126-127). In 1220, an Augustinian priory (DU005-031----) was established on a more spacious site on the mainland by Henry of London, archbishop of Dublin. Around 1320, Sir Michael le Veel, later Calf, was granted the manor of Norragh and Skerries by Geoffrey de Norrach, a wealthy landowner in Kilkenny and Wexford (Curtis & Brooks 1935, 86). In 1496, the Prior of Holmpatrick gained permission from King Henry VII to build a pier (Fox 1970, 8). The Port of Holmpatrick was in the possession of the Augustinian monastery until the Dissolution, and in 1565 Sir Thomas Fitzwilliam gained the monastery with lands, “tithes, profits, customs of all merchandise on the Piers of Skerries” (Campion 1969, 37).

4.2.3.4 Post-medieval (AD1600–1800)

The manor and lands of Holmpatrick were granted to the Earl of Thomond in 1605 (*ibid.* 10). In 1641, the lands at Skerries in the possession of Thomond were recorded at 107 acres.¹⁷ In 1720, the Hamiltons of Hackettstown purchased the Manor of Holmpatrick, including the town and port (*ibid.*, 38). In 1755, the Irish Parliament granted the Hamiltons a sum of £2000 for the construction of a pier (*ibid.*). John Rocque’s 1760 map shows the development of Skerries, with the newly-built pier, the village and windmill (DU005-028----) shown (Figure 6).

4.2.3.5 Modern (1800–2000)

The modern era saw extensive repairs made to the pier by the Hamilton family between 1800 and 1821 from their own finances (Fox 1970, 10). The modern pier (RPS 183/ NIAH 11311001) is dated c.1880 (Figure 7). In 1820, there were 52 boats in the harbour employing six or eight men each, while in 1838 there were only 38 ships (Campion 1969, 39). The reduction was in part caused by the elimination of fishing bounties by the British Government in 1830 (Roney 2019, 3).

Between 1803 and 1808, Martello towers were built around the Irish coast to guard against invasion by Napoleonic forces, the most important concentrated around Dublin (Sutcliffe 1970, 122). The

¹⁷ Books of Survey and Distribution: Holme Patrick Parish. Available at: <https://virtualtreasury.ie/item/NAI-QRO-1-1-3-8-5-9> [Accessed: 24 January 2024].

majority of these were evacuated by the turn of the twentieth century (ibid.). These included DU005-018----, which is the only RMP/SMR site within the study area.

In the nineteenth century, increasing sea traffic saw a number of shipwrecks off the coast of Skerries. The cemetery at Holmpatrick contains a number of sea burials, including Tolver Silvers from the 1831 sinking of *June of Yarmouth* off Shenick Island.¹⁸ Substantial reconstruction of the pier was undertaken c. 1880 (Figure 7).

4.2.4 Recorded Losses in the Shipwreck Inventory of Ireland

The WIID records no shipwrecks within the study area.

4.2.5 Previous archaeological Investigations

Previous archaeological excavations within 500m of the trenched areas and the channel were also assessed as part of this UAIA. No previous excavations have been recorded within the study area.

4.2.6 Recorded Archaeological Sites

One Recorded Monument is located within the study area – a Martello tower (DU005-018----). Further details about this site are found in Table 2, Figure 4 and Appendix 1: Archaeological Heritage Inventory.

Table 2: Recorded sites and monuments within the study area.

SMR/RMP No. ¹⁹	Site Type	Designation	Townland	ITM	Distance from Development
DU005-018----	Martello Tower	RMP	Townparks (Balrothery East By.)	725637, 761089	316m

4.2.7 Recorded/Listed Architectural Heritage

There are 11 (eleven) recorded/listed architectural heritage buildings located within the study area. The study area also partly lies within Architectural Conservation DF-ACA-29 as designated by the Fingal Development Plan 2023–2029 (Table 3, Figure 5 and Appendix 2: Architectural Heritage Inventory).

¹⁸ Available at:

<https://arrow.tudublin.ie/cgi/viewcontent.cgi?filename=2&article=1067&context=beschreoth&type=additional> [Accessed: 09 February 2024].

¹⁹ It should be noted that on 4 October 2023, a new bill (*Historic and Archaeological Heritage and Miscellaneous Provisions Bill 2023*) was passed by Dáil Éireann which if enacted will “repeal the National Monuments Acts 1930 to 2014 and replace those Acts”. See: <https://www.oireachtas.ie/en/bills/bill/2023/2/> [Accessed: 25 January 2024].

Table 3: Recorded/Listed Architectural Heritage sites within the study area.

Ref No.	Site Type (Name)	Status	ITM	Distance from Development
DF-ACA-29	Architectural Conservation Area	ACA	725263, 760679	c. 330m
RPS 182/ NIAH 11311023	House	RPS/NIAH	725123, 760699	c. 444m
RPS 183/ NIAH 11311001	Harbour/dock/port	RPS/NIAH	725363, 761171	c. 0m
RPS 185/ NIAH 11311004	House	RPS	725504, 761150	c. 181m
RPS 186/ NIAH 11311004	House	RPS	725512, 761165	c. 191m
RPS 187/ NIAH 11311004	House	RPS/NIAH	725532, 761151	c. 199m
RPS 188/ NIAH 11311004	House	RPS	725542, 761169	c. 222m
RPS 189/ NIAH 11311005	Martello tower	RPS/NIAH	725644, 761103	c. 307m
RPS 190/ NIAH 11311024	House	RPS/NIAH	725442, 760852	c. 289m
RPS 193/ NIAH 11311007	House	RPS/NIAH	725271, 760649	c. 469m
RPS 196/ NIAH 11311009	House	RPS/NIAH	725363, 760666	c. 458m
RPS 197/ NIAH 11311010	Monument	RPS/NIAH	725348, 760644	c. 477m

4.3 Cartographical Analysis

4.3.1 Ordnance Survey First-Edition Six-Inch Map (1843)

Sheet DN005 of the first-edition six-inch OS map series, which was published in 1843, shows the pier prior to its reconstruction c. 1880 (Figure 8). It also depicts ancillary buildings surrounding the pier and

the Martello Tower (RPS 189/NIAH 11311005) to the east. To the southeast of the pier, the village of Skerries is depicted with a similar layout to its modern appearance.

4.3.2 Ordnance Survey First-Edition 25-Inch Map (1908)

Sheet DN005-07 of the first-edition 25-inch OS map, which was published in 1908, depicts changes in the area of the proposed development (Figure 9). The pier and many of the surrounding buildings are largely unchanged from their former appearance. A row of terraced houses towards the southern extent of the study area includes the Protected Structure (RPS 190/NIAH 11311024).

5 Likely Impacts and Significance of Effect

5.1 Introduction

This section presents the likely impacts and significance of effect on cultural heritage assets located within the study area. As highlighted in Section 3.3, there are three types of impact to be assessed, these being:

- **Direct Impact** — where a feature or site or feature of archaeological interest is physically impacted by the proposed development, which potentially entails the removal of part, or all, of the feature. Sites or features that occurred within the development site were assessed for potential direct negative effects;
- **Indirect Impact** — where a feature or site of archaeological interest is located beyond the site of the proposed development but is in close proximity; or
- **No predicted impact** — where the proposed development does not adversely or positively affect a feature or site of archaeological interest.

The following summarises the predicted impacts, if any, on known/recorded archaeology assets.

5.2 Impacts to Maritime and Aviation Archaeology Assets

No direct or indirect impacts arising from the proposed development are predicted on any known/recorded Maritime and Aviation Archaeology within the proposed development site. This UAIA finds that there is **low** potential for unknown Maritime Archaeology Assets, and **negligible** potential for Aviation Archaeology Assets to be encountered within the development area which could be directly and negatively impacted by the proposed development. This determination is based on:

- The low level of potential highlighted through the interrogation and assessment of the available data, including the small number of known and recorded maritime losses in Skerries Harbour.

However, the absence of known or recorded Maritime Archaeology and Aviation Assets does not preclude the potential for archaeological remains to survive both *ex-* and *in situ* either within the proposed development site or in the immediate vicinity. The limited area of seabed affected would mean that any impact unknown Maritime Archaeology Assets would be of **low** magnitude and the significance of effect would be **slight**. Any impact on unknown Aviation Archaeology Assets would be of **low** magnitude and the significance of effect would be **imperceptible**.

5.3 Impacts to Submerged Prehistoric Assets

There are no known submerged prehistoric assets within the proposed development area; therefore, there are no predicted impacts. This UAIA finds that there is **low** potential for unknown submerged prehistoric assets to be present, and that the limited area of seabed affected would mean that any impact would be of **low** magnitude and the significance of effect would be **slight**.

5.4 Potential for Positive Impacts on Cultural Heritage

The UAIA has identified no direct or indirect impacts on known/recorded archaeological assets. However, should archaeological material be encountered during the development, the potential importance and significance of a discovery may warrant further investigation and research. This creates potential for indirect positive impacts through raising awareness, including appropriate dissemination. Any such work would allow for FCC to work with local communities and interest groups to enhance the potential for positive benefits during the proposed development.

6 Recommended Mitigation Measures

6.1 Introduction

The following presents recommendations for mitigation measures in light of the results of the assessment of Likely Impacts and Significance of Effect presented in Section 5. The Mitigation Measures also follow the key principals that ensure that any archaeology and cultural heritage impacted by the proposed works are suitably protected, the key being Avoidance and the preservation of an asset *in situ* where possible.

6.2 Recommendations

6.2.1 Walkover Survey & Wade Survey

As the site dries out at low tide, it is recommended that a walkover survey of the proposed development site by a suitably qualified archaeologist be carried out prior to the commencement of works. In the event it is considered safer and more appropriate, a wade survey with metal detection could also be considered in consultation and agreement with the UAU.

6.2.2 Geotechnical Survey

It is recommended that any proposed geotechnical survey and resultant data is assessed for geoarchaeological purposes by a suitably qualified marine geoarchaeologist in order to ascertain the presence of deposits of submerged prehistoric archaeological potential.

6.2.3 Preventative Measures

The masonry pier (RPS 183/NIAH 11311001) is a designated Protected Structure in Fingal Record of Protected Structures 2023–2029. Preventative measures should be assessed and implemented (where necessary) in consultation with the Architectural Conservation Officer (ACO) and/or the Heritage Officer to ensure adequate protection from damage during works.

6.2.4 Archaeological Monitoring

It is recommended that archaeological monitoring by a suitably qualified archaeologist be undertaken to ensure any previously unknown archaeological remains uncovered during the sheet piling and encapsulation works are identified and dealt with appropriately.

6.2.5 Archaeological Exclusion Zones (AEZs)

If archaeological material is encountered on the seabed during construction, all works will be suspended until the discovery has been fully assessed and the UAU have been consulted as to the appropriate action to be taken. If the material is found to be of archaeological interest/importance and can preferably remain *in situ*, with the approval of the UAU, the discovery will be furnished with

an Archaeological Exclusion Zone (AEZ) within which no construction will take place. If preservation *in situ* is not possible then an appropriate archaeological response will be discussed and agreed in consultation with the UAU.

The above measures are subject to the agreement of the UAU of the National Monuments Service. Please note that the local and statutory authorities may issue alternative or additional measures.

References

- Byrne, F. J. 2004. *Irish kings and high-kings*. 2nd edition reprint. Dublin: Four Courts Press.
- Campion, M. 1969. Skerries. *Dublin Historical Record*. Vol. 23, No. 1, pp. 36-43.
- Corcoran, E. 2009. Multi-Period Excavations at Barnageeragh, Skerries, Co. Dublin. *Axes, Warriors and Windmills: Recent archaeological discoveries in North Fingal*. Ed. Christine Baker. Dublin: Fingal County Council.
- Curtis, E. & Brooks, E. 1935. The Barons of Norragh, Co. Kildare, 1171-1660. *The Journal of the Royal Society of Antiquaries of Ireland*, Seventh Series, Vol. 5, No. 1 (Jun. 30, 1935), pp. 84-101.
- DAHG. 2011. *Architectural Heritage Protection Guidelines for Planning Authorities*. Dublin: Department of Arts, Heritage and the Gaeltacht. Available at: <https://www.buildingsofireland.ie/app/uploads/2019/10/Architecturacl-Heritage-Protection-Guidelines-for-Planning-Authorities-2011.pdf>
- DAHGI. 1999. *Framework and Principles for the Protection of the Archaeological Heritage*. Dublin: Stationery Office. Available at: <https://www.archaeology.ie/sites/default/files/media/publications/framework-and-principles-for-protection-of-archaeological-heritage.pdf>
- DHLGH. 2021a. *A Living Tradition: A Strategy to Enhance the Understanding, Minding and Handing On of Our Built Vernacular Heritage*. Available at: https://www.epa.ie/publications/monitoring--assessment/assessment/EPA_Advice_Notes-on_Current-Practice-on-prep-EIS_2003.pdf
- DHLGH. 2021b. *Archaeology in the Planning Process, Planning Leaflet 13*. Dublin: Office of the Planning Regulator. Available at: <https://www.archaeology.ie/sites/default/files/media/publications/archaeology-planning-process-pl13.pdf> [Accessed: 19 September 2022].
- DHLGH. 2021c. *NIAH Handbook*. Available at: <https://www.buildingsofireland.ie/app/uploads/2021/03/NIAH-Handbook-Edition-March-2021.pdf>. [Accessed: 19 September 2022].
- DHLGH. 2022. *Places for people: National policy on architecture*. Available at: <https://historicengland.org.uk/images-books/publications/assessment-management-marine-archaeology-port-and-harbour-development/>
- Dolan, B. & Cooney, G. 2010. Lambay lithics: the analysis of two surface collections from Lambay, Co. Dublin. *Proceedings of the Royal Irish Academy: Archaeology, Culture, History, Literature*, Vol. 110C (2010), pp. 1-33.
- English, J. 1987. *Carrickbrennan Graveyard Monkstown*. Dún Laoghaire: Dún Laoghaire Borough Historical Society.
- EPA. 2003. *Advice Notes on Current Practice*. Available at: https://www.epa.ie/publications/monitoring--assessment/assessment/EPA_Advice_Notes-on_Current-Practice-on-prep-EIS_2003.pdf
- EPA. 2022. *Guidelines on the Information to be contained in Environmental Impact Assessment Reports*. Online publication. Environmental Protection Agency. Available at: https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf
- Fox, C. 1970. *Skerries Harbour: A Short History*. Dublin: Three Candles Ltd.
- Heritage Council 2006. *Conserving Ireland's Maritime Heritage – Proposing Policies and Priorities for the National Heritage*. Available at:

[books/publications/assessment-management-marine-archaeology-port-and-harbour-development/](https://historicengland.org.uk/images-books/publications/assessment-management-marine-archaeology-port-and-harbour-development/)

Historic England 2016. *The Assessment and Management of Marine Archaeology in Port and Harbour Development*. Available at: <https://historicengland.org.uk/images-books/publications/assessment-management-marine-archaeology-port-and-harbour-development/>

Hydrographic Surveys Ltd. 2006. *Geophysical Survey Skerries Harbour* PN 35/06. Client Report

JNAPC 2006. *Code of Practice for Seabed Development*. Available at:

<https://jnapcorg.files.wordpress.com/2023/10/code-of-practice-second-edition.pdf>

Kelly, M. 1857. *Calendar of Irish Saints: The Martyrology of Tallagh*, with Notices of the Patron Saints of Ireland; and Select Poems and Hymns, Dublin: J. Mullany.

Lewis, S. 1837. *A Topographical Dictionary of Ireland*. Volume 1. London: S. Lewis & Co.

NRA. 2005(a). *Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes*. Dublin: National Roads Authority. Accessible at:

<https://www.tiiipublications.ie/downloads/SRM/12-Archaeology-Planning-Guidelines-2005.pdf>

NRA. 2005(b). *Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes*. Dublin: National Roads Authority. Accessible at: https://www.tii.ie/technical-services/environment/planning/Guidelines_for_the_Assessment_of_Architectural_Heritage_Impact_of_National_Road_Schemes.pdf

Roney, J. 2019. [Mis-]managing Fisheries on the West Coast of Ireland in the Nineteenth Century. *Humanities* **2019**, *8*(1), 4, 1-16.

Scantlebury, Rev. C.S. (1960), 'A tale of two islands (Dalkey Island and Inis Padraig)', *Dublin Historical Record*, Vol. 15, pp. 122-8.

Shennan, I., Bradley, S. and Edwards, R. 2018. 'Relative sea-level changes and crustal movements in Britain and Ireland since the Last Glacial Maximum.' *Quaternary Science Reviews* Vol. 188, pp. 143-159.

Stout, G. & Stout, M. 1992. *The Prehistory of Dublin to 1000AD. Dublin city and County – From Prehistory to Present*, eds. Aalen, FHA. & Whelan, K. Dublin: Geography Publ.

Sutcliffe, S. 1970. *Martello towers*. Folkestone: Newton Abbot [Eng.] David & Charles

Walsh, R. 1888. *Fingal and Its Churches: A Historical Sketch of the Foundation and Struggles of the Church of Ireland in that Part of the County Dublin which Lies to the North of the River Tolka*, Dublin: William McKee.

WAWTI 2014. *Dredging and Port Construction: Interactions with Features of Archaeological or Heritage Interest*. PIANC Guidance Document No 124.

Figures



Figure 1: Site Location.

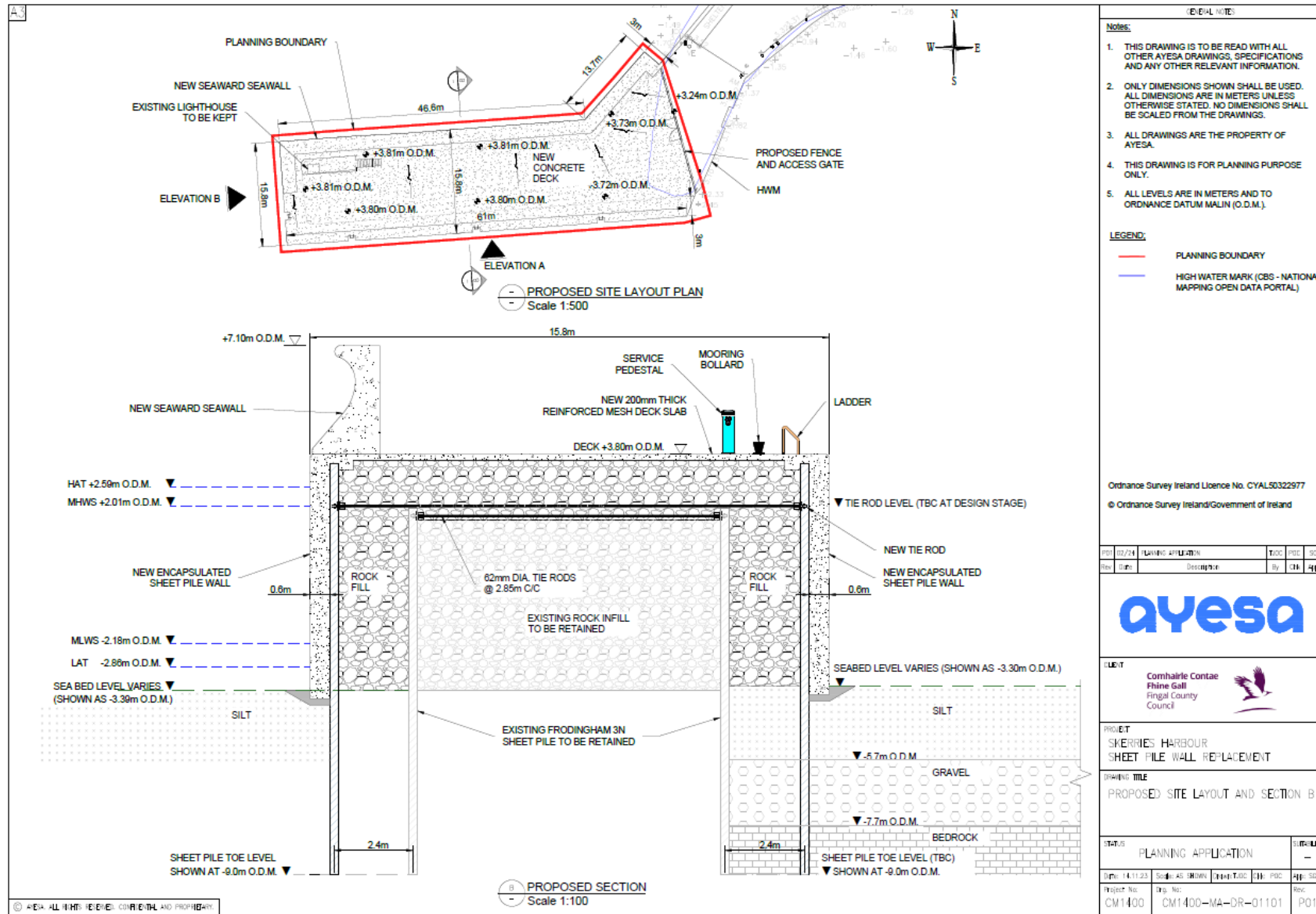


Figure 2: Plan and section drawing of proposed scheme (drawing provided by Ayesa).

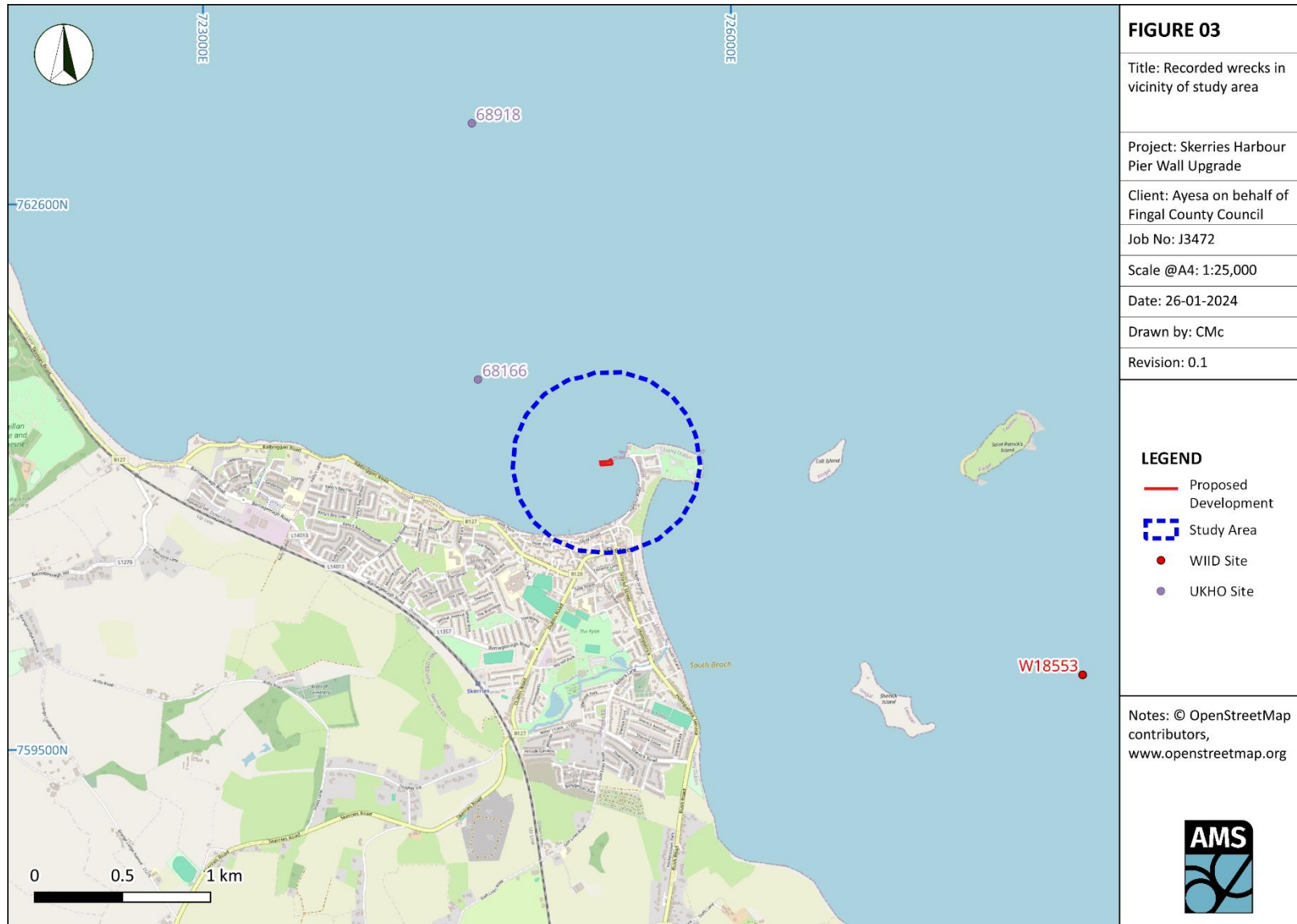


Figure 3: Recorded wrecks in the vicinity of study area.

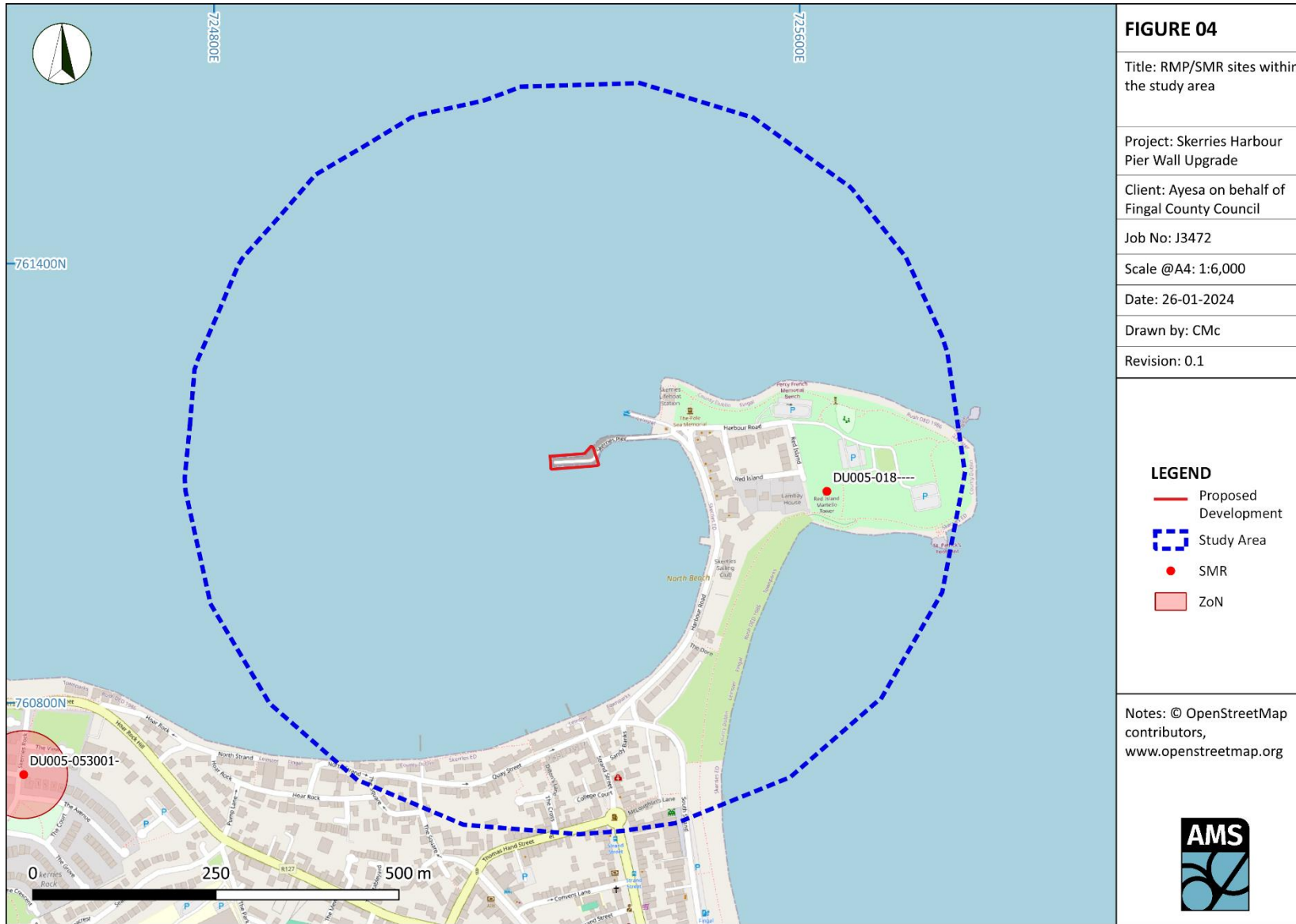


FIGURE 04

Title: RMP/SMR sites within the study area

Project: Skerries Harbour Pier Wall Upgrade

Client: Ayesa on behalf of Fingal County Council

Job No: J3472

Scale @A4: 1:6,000

Date: 26-01-2024

Drawn by: CMc

Revision: 0.1

- LEGEND**
- Proposed Development
 - - - Study Area
 - SMR
 - ZoN

Notes: © OpenStreetMap contributors, www.openstreetmap.org



Figure 4: RMP/SMR sites within the study area.

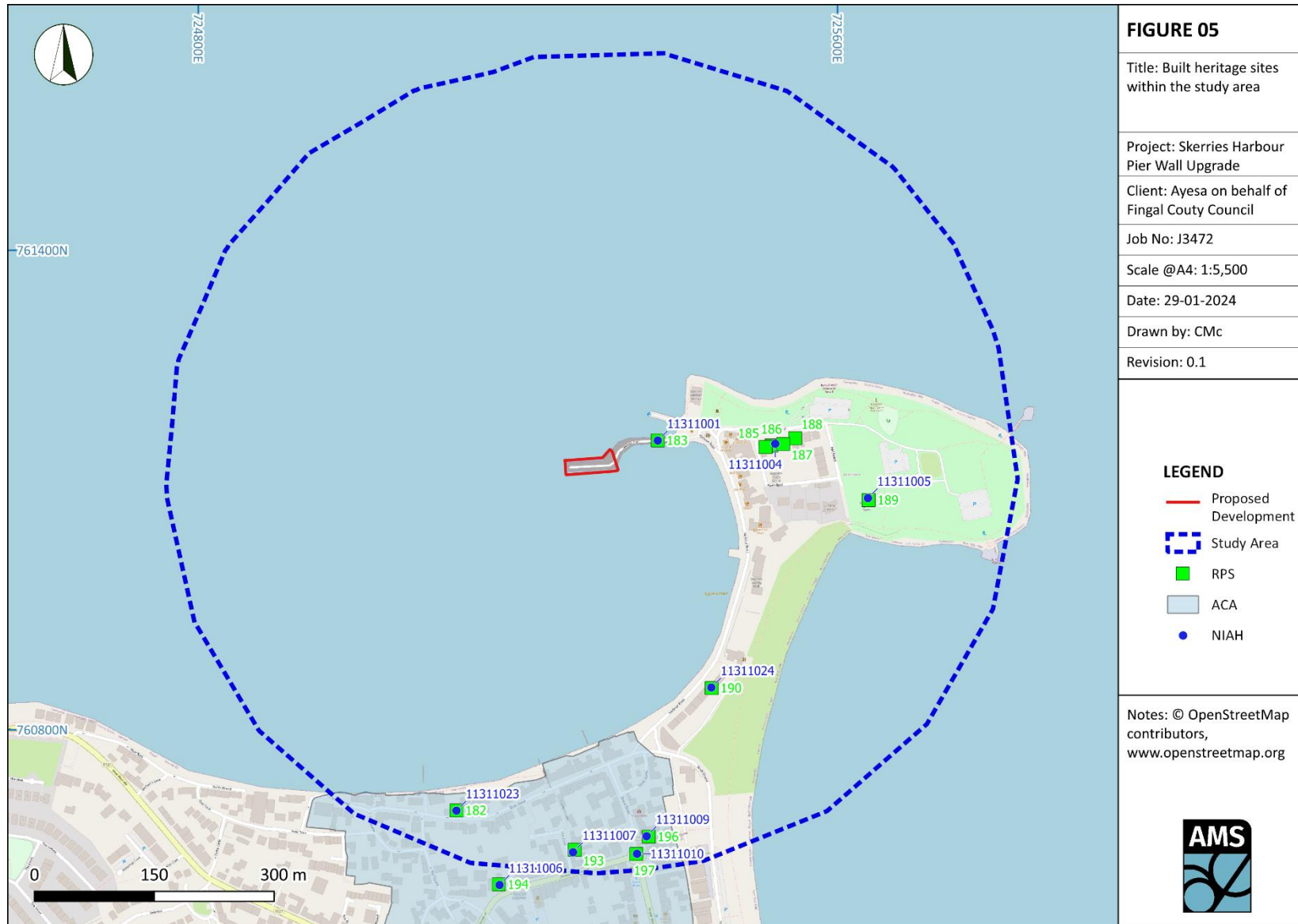
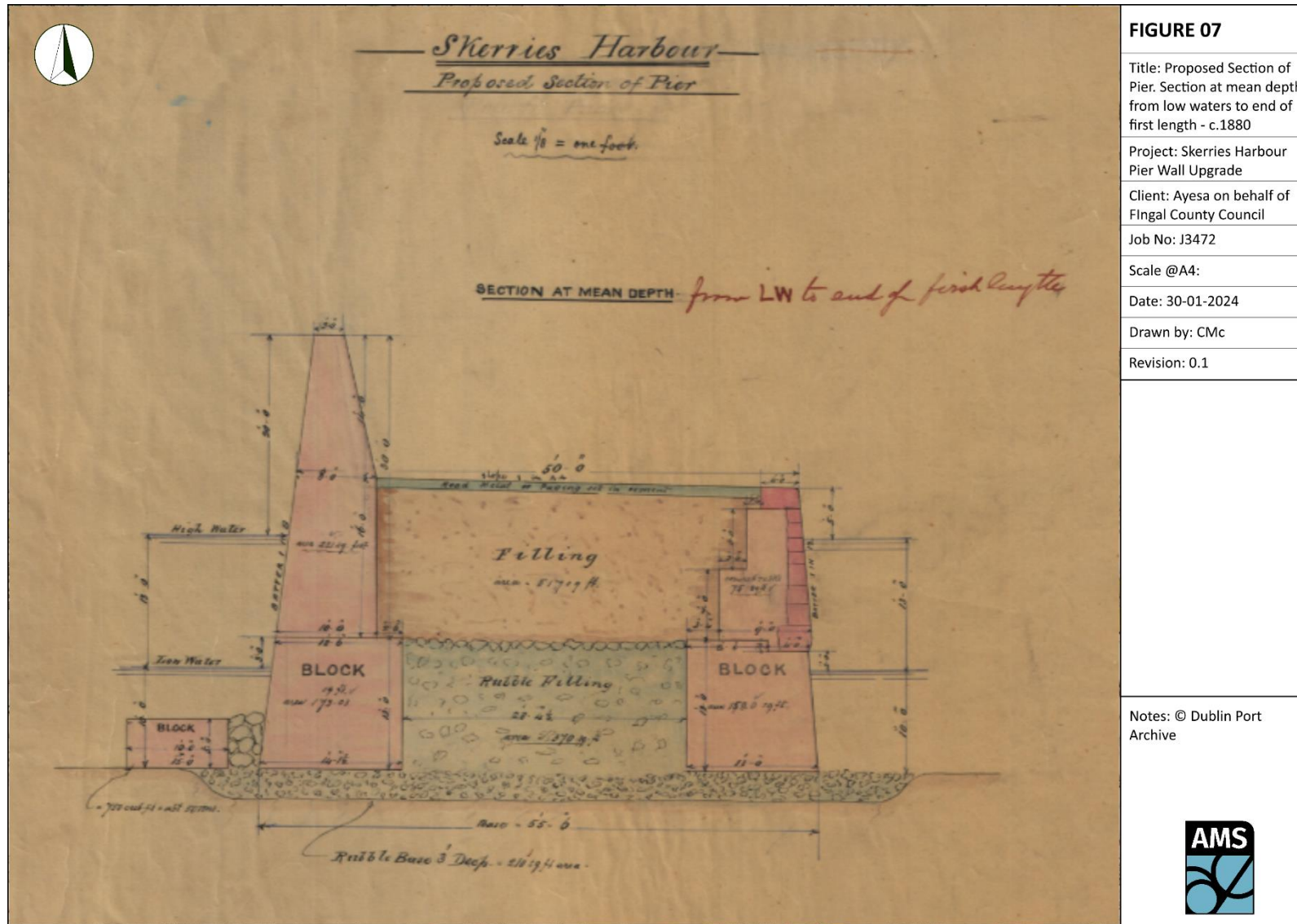


Figure 5: Built heritage sites within the study area.



Figure 6: Extract from An actual survey of the county of Dublin (1762) by John Rocque.

**FIGURE 07**

Title: Proposed Section of Pier. Section at mean depth from low waters to end of first length - c.1880

Project: Skerries Harbour Pier Wall Upgrade

Client: Ayesa on behalf of Fingal County Council

Job No: J3472

Scale @A4:

Date: 30-01-2024

Drawn by: CMc

Revision: 0.1

Notes: © Dublin Port Archive



Figure 8: Extract from six-inch OS map (1843) showing location of proposed scheme.

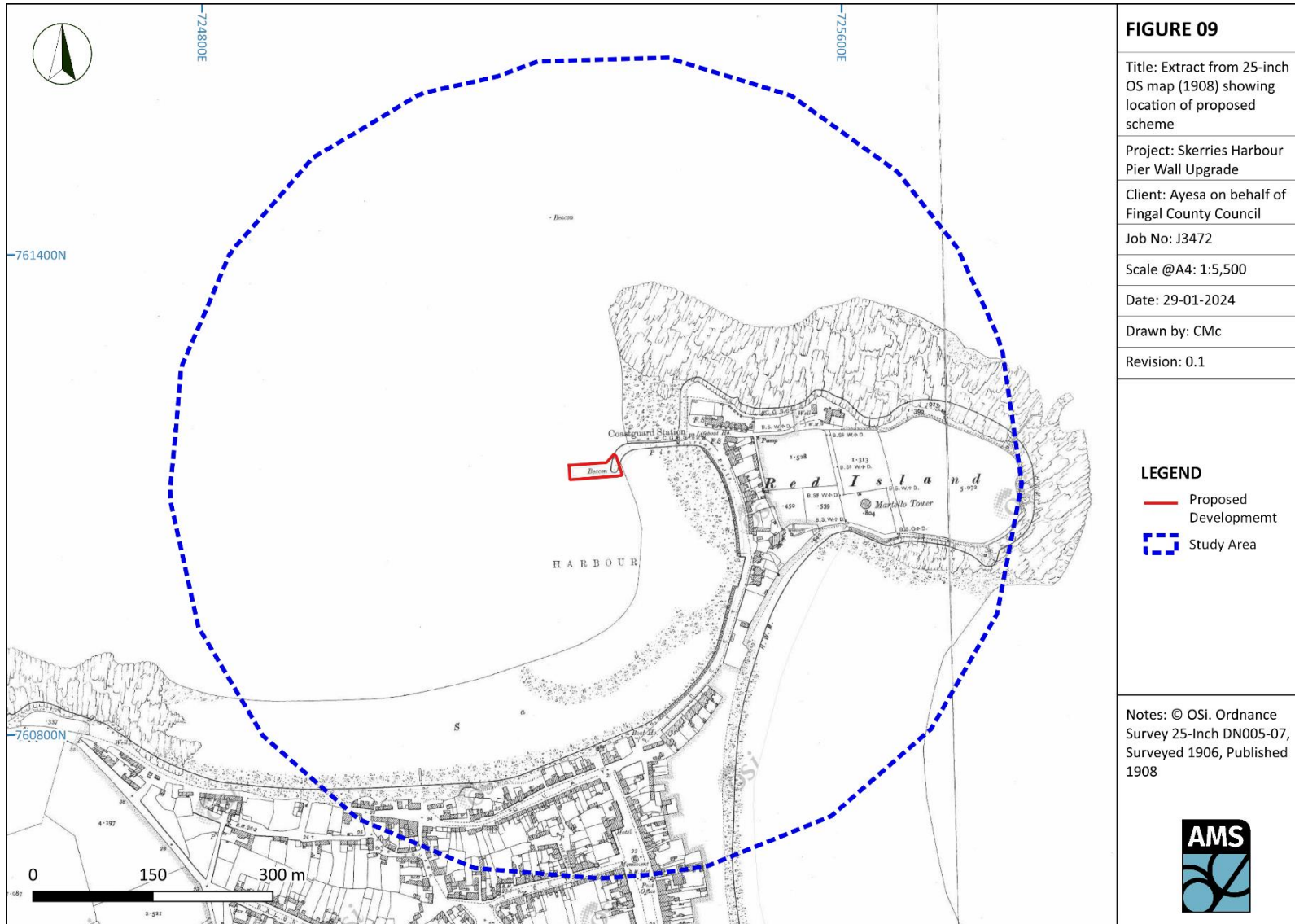


Figure 9: Extract from 25-inch OS map (1908) showing location of proposed scheme

Appendix 1: Archaeological Heritage Inventory

SMR/RMP No.	DU005-018----
Site Type	Martello tower
Legal Status	Recorded Monument
Townland	TOWNPARKS (Balrothery East By.)
Coordinates (ITM)	725637, 761089
Description	<p>Description: Skerries Martello Tower No. 11 on Red Island (Kerrigan 1995, 174). According to Kerrigan (1995, 168) construction of the Dublin area Martello Towers and their batteries commenced in 1804 under the supervision of Colonel Benjamin Fisher of the Royal Engineers and by December 1805 all towers were armed and complete. Kerrigan (ibid.) recorded that; 'Twelve towers were constructed north of Dublin: each tower mounted one 24-pounder, apart from the tower on Ireland's Eye with two 24-pounders. No batteries were constructed with these towers'. Situated on an elevated position in a park on the S side of Red Island overlooking another martello tower on Shenick Island. It was built in the centre of the island, to protect the approaches and the landing place at Skerries. This is a well preserved, squat, cylindrical tower, built of coursed ashlar masonry. Interior is lit by rectangular openings (blocked) on all sides. S doorway above ground level is defended by machicolation. A second doorway was inserted into the N. An offset marks the upper portion. The tower remained in use by the gunners of the Royal Artillery until it was disarmed in 1874. Archibald Reid, Master Gunner, was in charge of the tower between 1848 and 1874. Disarmed in 1874, Skerries Martello was subsequently used as a home, coal depot, tearooms and eventually became the focal point of Red island holiday camp from the 1950s until the early 1970s.(Bolton et al. 2012 178-9).</p>
Source	<p>Historic Environment Viewer [online]. Available at: https://maps.archaeology.ie/HistoricEnvironment/</p>

Appendix 2: Architectural Heritage Inventory

Ref. No.	RPS 182/ NIAH 11311023
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725123, 760699
Description	Four-bay single-storey thatched house, c.1800, with projecting entrance porch. Single-storey extension to rear, c.1970. ROOF: Double pitched thatched roof with nap rendered and brick chimney stack; flat roof to extension. WALLS: Rough-cast rendered; cement rendered extension. OPENINGS: Square-headed with rendered reveals; stone cills; timber casement windows, c.1980; timber tongue and grooved and glazed door, c.1980.
Source	National Inventory of Architectural Heritage [online]. Available at: https://www.buildingsofireland.ie/buildings-search/building/11311023/42-pier-street-townparks-ba-e-by-skerries-co-dublin

Ref. No.	RPS 183/ NIAH 11311001
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725363, 761171
Description	Harbour, c.1850, with limestone pier, sea wall and former Life Boat house. Various fish processing buildings, c.1970 to present.
Source	National Inventory of Architectural Heritage [online]. Available at: https://www.buildingsofireland.ie/buildings-search/building/11311001/townparks-ba-e-by-skerries-co-dublin

Ref. No.	RPS 185/ NIAH 11311004
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725504, 761150
Description	One of terrace of four early 20th century houses. Former lightkeeper houses for keepers of Rockabill Lighthouse, now private residences.
Source	Fingal Record of Protected Structures 2023-2029 [online]. Available at: https://www.fingal.ie/sites/default/files/2023-10/Appendices%2030.08.23_WEB.pdf

Ref. No.	RPS 186/ NIAH 11311004
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725512, 761165

Ref. No.	RPS 186/ NIAH 11311004
Description	One of terrace of four early 20th century houses. Former lightkeeper houses for keepers of Rockabill Lighthouse, now private residences.
Source	Fingal Record of Protected Structures 2023-2029 [online]. Available at: https://www.fingal.ie/sites/default/files/2023-10/Appendices%2030.08.23_WEB.pdf

Ref. No.	RPS 187/ NIAH 11311004
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725532, 761151
Description	Terrace of four two-bay two-storey houses, c.1875, with projecting entrance porches. ROOF: Concealed by parapet; nap rendered chimney stack to party walls with clay pots. WALLS: Nap rendered; plaster quoins; cornice to porches and parapets; plaster cill course to first floor. OPENINGS: Square headed openings; low relief plaster pedimented lugged and knee surrounds; replacement timber & uPVC windows; original tongue and groove timber doors.
Source	National Inventory of Architectural Heritage [online]. Available at: https://www.buildingsofireland.ie/buildings-search/building/11311004/28-31-harbour-road-townparks-ba-e-by-skerries-co-dublin

Ref. No.	RPS 188/ NIAH 11311004
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725542, 761169
Description	One of terrace of four early 20th century houses. Former lightkeeper houses for keepers of Rockabill Lighthouse, now private residences.
Source	Fingal Record of Protected Structures 2023-2029 [online]. Available at: https://www.fingal.ie/sites/default/files/2023-10/Appendices%2030.08.23_WEB.pdf

Ref. No.	RPS 189/ NIAH 11311005
Site Type	Martello Tower
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725644, 761103
Description	Martello tower, c.1805, on a circular plan with tapered profile, having projecting machicolation above raised entrance. ROOF: Corbelled stone roof. WALLS: Limestone ashlar. OPENINGS: Square headed opening; limestone ashlar reveals; steel door, c.1990; former openings now blocked up.
Source	National Inventory of Architectural Heritage [online]. Available at:

Ref. No.	RPS 189/ NIAH 11311005
	https://www.buildingsofireland.ie/buildings-search/building/11311005/skerries-martello-tower-townparks-ba-e-by-skerries-co-dublin

Ref. No.	RPS 190/ NIAH 11311024
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725442, 760852
Description	End-of-terrace three-bay two-storey house, built 1906, on a rectangular plan. One of a terrace of four. Pitched slate roof with ridge tiles, rendered chimney stacks having stringcourses below ogee-detailed cornice capping supporting terracotta or yellow terracotta octagonal or tapered pots, and cast-iron rainwater goods on timber eaves boards retaining cast-iron downpipes. Rendered walls bellcast over rendered plinth with pilasters to corners (ground floor) supporting "Cavetto" cornice on pulvinated frieze on entablature. Segmental-headed central door opening with columns on pedestals supporting "Cavetto" cornice on pulvinated frieze on entablature below balustraded parapet, and moulded surround with hood moulding centred on keystone framing timber panelled door having sidelights on panelled risers below overlight. Square-headed window openings with sills, and concealed dressings framing replacement casement windows replacing one-over-one timber sash windows. Set back from line of road with rendered panelled piers to perimeter having pyramidal capping supporting wrought iron gate.
Source	National Inventory of Architectural Heritage [online]. Available at: https://www.buildingsofireland.ie/buildings-search/building/11311024/slieve-donard-12-harbour-road-townparks-ba-e-by-skerries-co-dublin

Ref. No.	RPS 193/ NIAH 11311007
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725271, 760649
Description	Corner-sited end-of-terrace six-bay two-storey house, c.1870, with original timber shopfront, c.1880. Now also in use as a public house.
Source	National Inventory of Architectural Heritage [online]. Available at: https://www.buildingsofireland.ie/buildings-search/building/11311007/the-gladstone-inn-16-the-cross-townparks-ba-e-by-skerries-co-dublin

Ref. No.	RPS 196/ NIAH 11311009
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725363, 760666
Description	Terraced two-bay two-storey house, c.1880, with shopfront to ground floor. Two-bay two-storey extension to rear, c.1990. Now in use as post office. ROOF: Double pitched tiled roof with terracotta ridge tiles. WALLS: Nap rendered with plinth

Ref. No.	RPS 196/ NIAH 11311009
	course. OPENINGS: Original timber shopfront with rendered fluted pilasters and console brackets supporting a timber fascia with flat panelled end; brackets and metal framed awning; fluted rendered pilasters and console brackets flank the centrally placed door, c.1980, and overlight; fixed paned display windows to each end resting on recessed panelled stallrisers; square headed windows with moulded rendered architraves; stone cills; uPVC casements.
Source	National Inventory of Architectural Heritage [online]. Available at: https://www.buildingsofireland.ie/buildings-search/building/11311009/11-strand-street-townparks-ba-e-by-skerries-co-dublin

Ref. No.	RPS 197/ NIAH 11311010
Site Type	House
Townland	Townparks (Ba. E By.)
Coordinates (ITM)	725348, 760644
Description	Freestanding limestone monument, c.1870, erected in memory of James Hans Hamilton, Esq., MP on a rock faced base with an engraved marble inset tablet on each side. Set on a tiered plinth and bounded by cast-iron railings on a chamfered plinth.
Source	National Inventory of Architectural Heritage [online]. Available at: https://www.buildingsofireland.ie/buildings-search/building/11311010/hamilton-monument-strand-street-townparks-ba-e-by-skerries-co-dublin