



**Causeway
Coast & Glens
Borough Council**

WEST BAY, PORTRUSH ACCESS IMPROVEMENT AND REVTMENT REMEDIAL WORKS



**Environmental Statement
Non-Technical Summary**

February 2020



Doran
CONSULTING
DELIVERING ENGINEERING EXCELLENCE

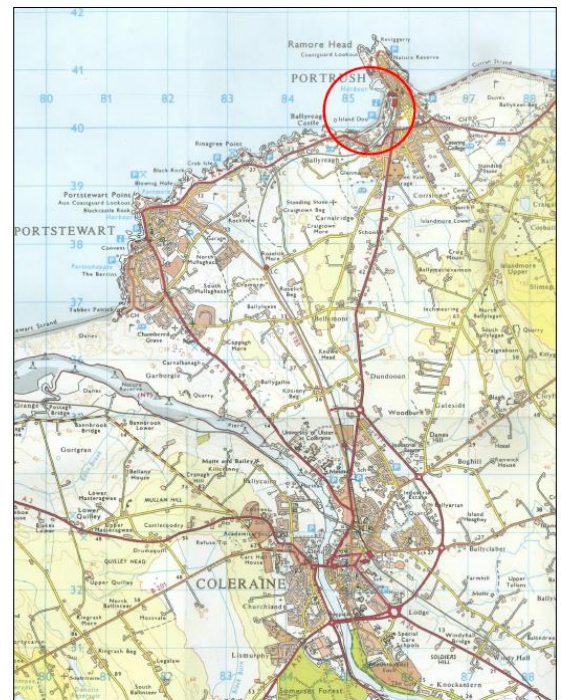
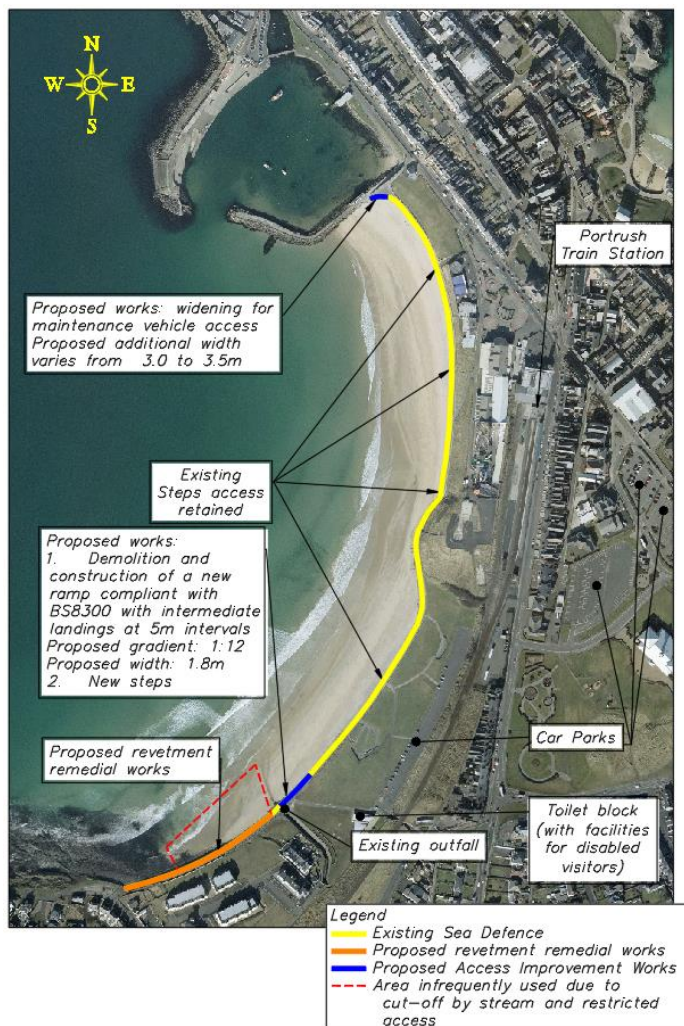
INTRODUCTION

The Proposed Works are located at West Bay, Portrush.

The existing sea wall was constructed in 1960 in the location of the natural dunes to facilitate the construction of infrastructure. Environmental Improvement Works to the existing promenade and beach access points was carried out in 2013 and included new handrails and guardrails, lighting, surfacing, street furniture, low wall to the rear of the promenade and a ramp at the north end of the promenade at the interface with Portrush Harbour South Pier.

Causeway Coast & Glens Borough Council proposes to carry out works to improve the beach accesses ramps and reinstate the Revetment at the southern end of the promenade to its original form of construction.

The Proposed Works and Site Location Plan are shown on the figure below.



EXISTING ENVIRONMENT

Portrush West Bay is a sandy beach surrounded by basalt cliffs. Following the construction of the Portrush Harbour in 1825 and the Railway Station in 1855, Portrush became a seaside resort. Portrush is located on the north coast of County Antrim, Northern Ireland - 5 miles north of Coleraine.

Over the 1000m stretch of the promenade, the accesses to the beach provided are: 4 Stepped Access and 2 No. Ramp Accesses, one located at the south pier and one set of ramps located on either side of a culverted watercourse.

EXISTING ENVIRONMENTAL CONSTRAINTS

The Site is located within the Portrush West Strand ASSI, which is important due to the underlying layers of peat and dune sands. The Site is located adjacent to but not within the Skerries and Causeway SAC. The qualifying features of the SAC are Sandbanks which are slightly covered by sea water all the time, reefs, submerged or partially submerged sea caves and Harbour Porpoise

ENVIRONMENTAL IMPACT ASSESSMENT

The findings of the Environmental Impact Assessment for the project have been reported in West Bay, Portrush Access Improvement and Revetment Remedial Works Environmental Statement.

This Non-Technical Summary outlines the principal environmental impacts identified during the assessment and the proposed mitigation.

CONSULTATION

Specific consultations have also been carried out with affected parties as well as environmental regulators.

The purpose of the consultation exercise was to establish existing site conditions and assist in defining the key environmental issues associated with the project. Feedback from consultations has helped inform the design of the scheme and environmental protection measures.

PROJECT DESCRIPTION

The title of the Project is 'West Bay, Portrush Access Improvement and Revetment Remedial Works'. It consists of two access improvements and replacement like-for-like of approximately 10% (150m) of the existing revetment, element of the Sea Defence at West Bay, Portrush. See below the before pictures and proposed works.

The construction works will be undertaken in the following consecutive phases:

- Phase 1: Widening of the South Pier vehicular access ramp
- Phase 2: Pedestrian access ramp with stepped access and revetment remedial works, both at the southern end of West Bay.

EXISTING

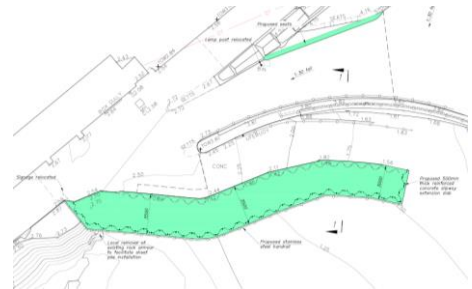
DESCRIPTION

PROPOSED WORKS

Images for illustration purposes only to give an indicative representation of the scheme.



(1) **Widening of the South Pier vehicular access ramp** to improve maintenance and lifesaving vehicle access to the beach;



(2) Part demolition (east of the culvert only) of the existing non-compliant pedestrian access ramp (with regards gradient and low level spur) and construction of a new, compliant, **pedestrian access ramp with stepped access for ambulant persons.** The new ramp shall comply with BS 8300 *Design of an accessible and inclusive built environment*, and



(3) **Remedial works to 150m of existing revetment** (the total length of existing revetment is 1000m): Replacement of the damaged precast revetment units in the revetment and new sheet pile scour protection seaward of the existing sheet piles which have deteriorated beyond their useful life.



ALTERNATIVES

A number of alternatives were considered. 'Do Nothing', 'Soft Engineering', 'Retreat'. The project alternative options are not considered feasible from a social, economic and environmental perspective.



ENVIRONMENTAL IMPACTS AND MITIGATION

The project and associated mitigation measures have been designed to minimise adverse environmental effects. Nonetheless some impacts would arise from the proposals, as summarised below:

LANDSCAPE AND VISUAL ENVIRONMENT

The materials proposed for the all the works will be in keeping with existing i.e. reinforced concrete and stainless steel handrail. The impact of the proposed Revetment Remedial Works are deemed neutral to positive, once a like-for-like solution is proposed with regards materials and geometry, particularly the precast interlocking blocks which will be 'match cast'. A Temporary Construction Ramp is proposed to access Phase 2 of the Works at the southern end of the beach, minimising the public interface and reducing construction visual impacts.

GEOLOGICAL AND ARCHAEOLOGICAL CONDITIONS

The geological and archaeological significance of the peat at West Bay has been recognized by designation as an Area of Special Scientific Interest (Portrush West Strand ASSI). The significance of the peat stems from: (1) its age, (2) its value to an understanding of post-glacial sea-level fluctuations, (3) its contained plant remains, and (4) its association with the early human occupation of Ireland.

The proposal for a temporary construction access ramp adjacent to the stream has the potential to cause damage to the most southerly of the peat exposures on the beach (feature of Portrush West Strand ASSI), as well as construction vehicles that may have to cross a small area of the peat as they access the beach from the ramp. This potential impact will be minimized by the construction of a working platform of geotextiles and hardcore on the beach.

A Licensed archaeological presence is required only in the course of the ground works associated with the construction of the Temporary Construction Ramp, Temporary Construction Platform and Pedestrian Access Ramp with Stepped Access (located immediately north of the existing culvert).

COASTAL PROCESSES

The coastal zone is that part of the land surface influenced by coastal processes. It extends from the landward limit of tides, waves, and wind-blown coastal dunes, and seaward to the point at which waves interact significantly with the seabed. The coastal zone is dynamic, where both marine and atmospheric processes produce rocky coasts, as well as beaches and dunes. Coastal processes are influenced by atmospheric processes (temperature, precipitation, and winds) and marine processes (waves, tides, water temperature and salinity).

At the South Pier, the structure is located in a sheltered area of West Bay, at the interface between the coastal wall and South Pier breakwater.

At the Pedestrian Access Ramp and Steps will be primarily constructed within the plan extents of the revetment, with the exception of the lower transition to the foreshore, which extends 3.6m seaward. The Revetment remedial works is a like-for-like construction replacement, with sheet piles driven approximately 500mm seaward.

The design of the proposed structures is broadly the same as the existing defence structures, with the footprint profile of the defences not changed significantly, maintaining the status quo in terms of coastal processes during their operational phase.

INTER-RELATIONSHIPS AND CUMULATIVE IMPACTS

Wider Projects and Activities related to sea defences in the vicinity of West Bay include:

- Portrush North Pier: Refurbishment of existing sea defences to the seaward face of North Pier, Portrush. Works to include local concrete repairs to existing stone pitched revetment with concrete overlay, in-situ concrete beam, relocation of existing rock armour and provision of new rock armour units → the existing pier dates from 1920's and the refurbishment works were completed on September 2019
- White Rocks Strand (Lands at Royal Portrush Golf Club Dunluce Road Portrush): The project consists of a 20m extension of the existing 90m long rock revetment and sand Trap Fence → the existing revetment dates from 1980's and the project is pending Planning Approval.

No cumulative effects are expected from the Works at Portrush North Pier as the project is already completed.

No cumulative effects are expected from the Works at White Rocks Strand as the proposed works at White Rocks Strand are east of from West Bay and separated by Ramore Head.

WATER ENVIRONMENT

The proposed works are programmed between March and September 2021. Bathing Season is between Mid-May and Mid-September and hence the proposed works must not compromise the water quality. An Outline Construction Environmental Management Plan has been prepared separately setting out good construction practices and measures will be taken to ensure the Contractor's adherence to the Plan.

BIODIVERSITY

Regarding Terrestrial Habitats losses, the Biodiversity Report found that the potential losses are minor and temporary as the site will be restored to its current condition and available for recolonization.

In respect of the Habitats Regulations Assessment, the Stage 1 Test of Likely Significance concluded that the proposed works have potential to have a significant effect on SAC features (marine mammals & sandbanks) and to interfere with key relationships within Skerries & Causeway SAC (due to the proximity to open water). The Stage 2 *Appropriate Assessment Report* proposes the following mitigation measures:

- Full adherence to Marine Licence & EPS Licence as appropriate.
- Provision of independent Marine Mammal Observer (MMO) during piling activities.
- Full adherence to Contractors CEMP and specifically the Piling Protocol & MMO Protocol.

The Contractor will be required to implement these mitigation measures fully thereby ensuring no adverse impacts on SAC selection features.

NOISE AND VIBRATION

There may be potential impacts to the local residents through increased noise during lorry movements, plant activities and piling operations. However, the construction works will be of a relatively short duration, carried out during daylight. It must be noted that piling is not continuous during this time period as the greatest percentage of time during 'piling activities' is in pitching and set up.

Noise monitoring will be undertaken prior to the Commencement of the Works to establish a baseline. Further monitoring will be undertaken during the Works.

HEALTH AND AIR QUALITY

Air quality impacts will be temporary and restricted to the immediate vicinity of the site. The key sources of these impacts will be vehicle emissions and sand from the movement of plant and materials around the site as well as from the demolition operations. An Outline Construction Environmental Management Plan has been prepared separately setting out good construction practices and measures will be taken to ensure the Contractor's adherence to the Plan.

TRANSPORT ASSESSMENT

Vehicular access for construction traffic to the Phase 1 works at the South Pier will be from Kerr Street. The access to the working area from Kerr Street will be shared with pedestrians accessing the South Pier and the café on the South Pier. The Phase 2 works at the southern end of West Bay are located some 800 metres to the south of Phase 1. Construction deliveries traffic will access the site from the Portstewart Road and via the arch under the Portrush to Coleraine railway line. The access to the working area from Portstewart Road will be shared with cars accessing the adjacent public car park and pedestrians accessing the Promenade, car park, mobile food vans and toilet block. The Contractor will provide appropriate management measures to safely deal with any interaction between construction activity and pedestrians.

No construction vehicles will traverse the beach. The construction plant will be held at the Contractors Compound.

The proposed sea defence works, when completed, will not generate additional traffic and consequently will have no traffic impact on the highway network in Portrush.

CONCLUSION

The potential impacts of the proposed works have been assessed against the following elements: Landscape and Visual Environment, Geological and Archaeological Conditions, Coastal Processes, Inter-Relationships & Cumulative Impacts, Water Environment, Biodiversity, Noise and vibration, Health & Air Quality and Transport Assessment

The proposed mitigation measures are as follows:

- Outline Construction Environmental Management Plan has been prepared separately setting out good construction practices and measures will be taken to ensure the Contractor's adherence to the Plan.
- Construction Period: The works have been phased to minimise impacts, with the Phase 1 (South Pier) proposed completion date before the Bathing Season and the Phase 2 (Southern end of the promenade) proposed during the bathing season as this location is not frequently used by tourists/population. The overall construction period was selected to avoid adverse weather during winter months.
- Temporary construction access ramp at the southern end of the promenade: This is proposed to allow the Phase 2 to be carried out during the Bathing Season with minimal impact to tourists/population, as this will allow construction vehicles not to traffic through the beach from the South Pier.
- Temporary working platform at the southern end of the promenade: The site investigation indicate the presence of ancient peat layers, which are a feature of the designated ASSI. The construction vehicles have the potential to cause damage to the most southerly of the peat exposures on the beach, hence a working platform consisting of geotextiles and hardcore is proposed to be placed on the beach, mitigating the potential impact.
- Coastal Processes: The proposed design minimises the additional footprint required in order to minimise the impacts. At the South Pier, the proposed works are above the Mean High Water and will be like for like with regards level and form of structure. At the southern end of the promenade, the Pedestrian Access Ramp and Steps will be primarily constructed within the plan extents of the revetment, with the exception of the lower transition to the foreshore, which extends 3.6m seaward (comparable to the current spur structure, which extends 5.6m seaward). The Revetment Remedial Works is a like-for-like construction replacement.
- Licensed archaeological presence in the course of the ground works associated with the construction of the Temporary Construction Ramp, Temporary Construction Platform and Pedestrian Access Ramp with Stepped Access (located immediately north of the existing culvert).
- Provision of independent Marine Mammal Observer (MMO) during piling activities to ensure marine mammal protection conditions are implemented. This will involve ensuring that the area is clear of marine mammals prior to commencement of piling activities and that all relevant licence conditions are implemented.