Ballyholme Yacht Club Redevelopment

Preliminary Construction Method Statement

This document provides a description of the preliminary construction methodology for the redevelopment of Ballyholme Yacht Club. There will be terrestrial elements of the work for which planning permission is being sought from Ards & North Down Borough Council and marine elements for which a Marine Construction Licence is being sought from the Department of Agriculture, Environmental and Rural Affairs (DAERA) Marine & Fisheries Division (MFD).

The following sections set out the various aspects of the proposed works. This Preliminary Construction Method Statement should also be read in conjunction with the outline Construction Environmental Management Plan (CEMP) which supports the planning application. It is likely that final versions of these documents will be conditioned with any approvals, to be provided for agreement, prior to construction and on appointment of a Contractor, during detailed design stage.

Demolition of Existing Buildings and Clubhouse

- Removal and disposal of all asbestos containing materials from the existing Main Clubhouse building and rescue (boat maintenance) shed. Works will be carried out by a Licensed Asbestos Removals Contractor.
- Disconnection/de-energisation of the existing utility supplies to both existing buildings (including mains gas, water, electric and telecoms).
- Soft strip and internal clearance works (both buildings).
- Demolition of both buildings in strict accordance with the agreed plan of work (top-down method will be stipulated, based on each building's location).
- Segregation and removal (for off-site crushing and screening) of demolition arisings, to contribute to BREEAM 95% waste reuse/recycling target.

Existing North Slipway Closure & Infilling

- Breaking out and partial demolition of the existing concrete slipway to facilitate construction of the new seawall foundation and disposal of arisings. Excavation arisings to be disposed of on land at an appropriate offsite facility.
- Placement and compaction of sub-base material to create a formation layer for foundations.
- Construction and installation of temporary works, specifically concrete formwork to cast the new length of reinforced concrete seawall to close the existing slipway.
- Post-fixing of new steel reinforcement into the existing seawall to provide structural continuity with the new length of seawall.
- Positioning of steel reinforcement within formwork and placement of concrete.
- Infilling to the rear of the new length of seawall, within the existing North Slipway with clean imported granular fill material.

New Rock Armour Revetment Construction

- Rock breaking and excavation of existing seabed (bedrock, boulders, cobbles, gravel) within the footprint of the rock armour revetment toe to form a toe trench. Excavation arisings to be disposed of on land at an appropriate offsite facility
- Construction of revetment core behind toe trench at a 1:1.5 gradient, filling to the North Boat Park seawall including infilling of the existing North Slipway.
- Construction of revetment toe, with placement of rock armour stones keyed into existing bedrock within the toe trench.
- Placement of graded rock armour underlayer, secondary and primary rock armour stones onto the revetement core at 1:1.5 gradient.
- Placement of revetment toe armour, to overlie those keyed into the existing bedrock toe trench.

New Reinforced Concrete RIB Slipway Construction

- Rock breaking and excavation of existing seabed (bedrock, boulders, cobbles, gravel) within the footprint of the new RIB Slipway at a 1:10 gradient and disposal of arisings. Excavation arisings to be disposed of on land at an appropriate offsite facility.
- Locally deepened rock breaking and excavation will be required along the toe and edge of the proposed RIB Slipway to facilitate the construction of an integral reinforced toe and edge beam.
- Construction and installation of temporary works, specifically concrete shutters for the casting of the new reinforced concrete slipway.
- Placement and compaction of sub-base material to create a formation layer for slipway construction.
- Positioning of steel reinforcement within formwork and placement of concrete.

Demolition of Existing and Construction of New Finger Jetty

- Demolition of the existing concrete jetty (deck structure and pillars) and disposal of arisings. Excavation arisings to be disposed of on land at an appropriate offsite facility.
- Construction and installation of temporary works, specifically concrete shutters for the casting of the new concrete infilled finger jetty.
- Positioning of steel reinforcement within formwork and placement of concrete to reconstruct the finger jetty at a 1:10 gradient to match the new RIB Slipway.
- Installation of fendering to the berthing faces of the new finger jetty with bolted connections.

Reconstruction & Extension of Existing Main Slipway

- Rock breaking and excavation of existing seabed (bedrock, boulders, cobbles, gravel) within the footprint of the new Main Slipway at a 1:10 gradient and disposal of arisings. Excavation arisings to be disposed of on land at an appropriate offsite facility.
- Locally deepened rock breaking and excavation will be required along the toe and edge of the proposed RIB Slipway to facilitate the construction of an integral reinforced toe and edge beam.
- Demolition of the existing concrete slipway within the footprint of the new Main Slipway at a 1:10 gradient and disposal of arisings.
- Construction and installation of temporary works, specifically concrete shutters for the casting of the new reinforced concrete slipway.
- Placement and compaction of sub-base material to create a formation layer for slipway construction.
- Positioning of steel reinforcement within formwork and placement of concrete.

Clubhouse Construction (Terrestrial Works)

- Break out existing concrete surfacing slab.
- Excavate trenches to rock stratum for pad and strip foundations.
- Provide trench infill as required to rock stratum.
- Construct reinforced concrete pad and strip foundations.
- Construct reinforced concrete columns and lift/stair core walls from top of foundations to underside of first floor.
- Construct reinforced concrete first floor slab and beams.
- Construct reinforced concrete lift core wall to roof level.
- Erect main first floor steel structure supported of the first-floor concrete slab and beams.
- Erect ground floor steel structure to café / entrance area.
- Encase steel columns below ground.
- Build substructure walls to ground floor level.
- Place well compacted engineered fill to underside of ground floor structure.
- Pour ground floor reinforced concrete suspended slab / ground bearing slab.
- Build ground floor to first floor façade.
- Install metal decking roof panels to support built up roof system as specified by architect.
- Build first floor to roof façade.

Boathouse Construction (Terrestrial Works)

- Break out existing concrete surfacing slab
- Excavate trenches to rock stratum for pad and strip foundations
- Provide trench infill as required to rock stratum
- Construct reinforced concrete pad and strip foundations
- Erect single storey steel structure
- Install metal decking roof panels to support built up roof system as specified by architect
- Build substructure walls and ground floor to roof block walls
- Pour reinforced concrete ground bearing floor slab.

Surfacing & Drainage

- Breaking out and partial demolition of the existing concrete surfacing slab and excavation of subgrade material to form trenches, facilitate installation of the new surface water drainage network (including full retention bypass interceptor) and disposal of arisings.
- Placement and compaction of sub-base material for drainage run bedding material.
- Placement of uPVC and concrete surface water drainage network and infilling trenches to surround.
- Placement and compaction of sub-base material for blacktop and heavy-duty surfacing up to the formation level required for surfacing.
- Placement blacktop and heavy-duty surfacing onto compacted sub-base material.
- Installation of surface water discharge points through existing seawalls (including duckbill valves to prevent backwash) below MHWS.