Schull Harbour Development, Schull, Co. Cork

Outline Construction Method Statement

Date: 26 May 2015

Job No: *C347*

Client: *Schull Community Harbour Development Company*

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Consulting Engineers
Civil • Marine • Structural • Environmental

Contents

Revision Control Table & Document History Record

Rev.	Date	Description & Reason for Issue	Orig.	Chkd.	App.
0	*26/05/2015*	*Foreshore RFI*	*SMC*	*AC*	*AC*

1.0 SCOPE OF WORKS

Schull Community Harbour Development Company (SCHDC) have identified the development of the inner harbour (Schull Pier and immediate surrounds) as being of strategic importance to both commercial and leisure industries in Schull.

2.0 BRIEF DESCRIPTION OF WORKS

SCHDC propose constructing a 270m long rubble mound breakwater to the east of the existing Schull Pier and installing a series of heavy duty floating pontoons on the sheltered side of the breakwater for berthing of fishing vessels. 20 inshore fishing vessel berths and 4 trawler berths will be provided on this pontoon. An additional 10 inshore pontoon berths will be provided on the north face of the pier. The existing storm wall on the pier will be extended and raised to prevent flooding during extreme storm events.

On the north shore adjacent to the pier an area of land c. 0.53 hectares will be reclaimed from the foreshore. A car park, marina facilities building and concrete slipway will be constructed on the reclaimed foreshore. The car park will provide 95 parking spaces and will be fronted by a sloping armoured revetment. The marina facilities building will provide sanitary and changing facilities to marina users. An office will also be located within the building. A 235 berth marina, with access platform, gangway, floating breakwaters and associated infrastructure will be installed to the south of the reclaimed foreshore. The marina will be constructed of proprietary floating pontoons and held in position using steel piles. A services berth providing diesel refuelling facilities and a sewage removal system will be provided as part of the works.

The development will be split into a number of phases:

1) Phase 1: 270m rock armour breakwater to south
2) Phase 2: Installation of marina, floating breakwater to east, and commercial pontoon
3) Phase 3: Reclamation of foreshore, construction of slipway and access road

3.0 METHOD STATEMENT

It is anticipated that construction will commence in May/ June 2016, however this will depending on the outcome of the foreshore lease application, outstanding planning issues, funding, the tender process and Contractor availability.

The Contractor will set up separate site compounds for the individual phases of the works

Phase	Element	Site Compound Location
1	270m rock armour breakwater	Head of existing pier and tennis court location
2	Installation of marina, floating breakwater to east and commercial pontoon.	Tennis court location (primarily) and head of existing pier for the commercial pontoon installation.
3	Reclamation of foreshore, construction of slipway and access road.	Tennis court location

Table 1: Site Compound Locations

3.1 Mobilisation

The Contractor will mobilise to site and begin with the construction of the construction access route. When the route is created, a site compound will be set up at the south of the tennis courts. The site compound with accommodate the contractor's site offices and stores.

3.2 Phase 1

The Contractor will then set up a temporary site compound at the head of the pier to accommodate the construction of the rubble mound breakwater (Phase 1). The Contractor will set up secure fencing around an area to be agreed at the head of the pier. Construction of the breakwater will be phased in order to accommodate expected settlement of the sea bed. The following items of work are envisaged:

1. A hydrographic survey will be carried out at the site of the breakwater to determine pre-construction bed levels;
2. Warning signs and temporary navigation buoys will be placed to mark the breakwater.
3. The contractor will place geotextile membrane on the seabed. This work will be assisted by divers;
4. The contractor will commence engineering fill material to the pier;
5. The material will be tipped directly from the head of the pier to the sea bed;
6. When sufficient material engineering fill material has been places, the contractor will place an excavator on the built up material;
7. The excavator will be used to accurately place the filter layer and rock armour;
8. When the excavator has placed rock armour to a sufficient level, the excavator will track forward and steps 2-6 will be repeated.
9. When the first stage has been completed over 270m, the excavator will track back and repeat by filling with material to the high water level. This will be completed over 270m
10. When step 9 is complete, the Contractor will complete the above stages to the crest level of the breakwater.
11. Navigation lights will be installed by the Contractor at the trunk of the breakwater.
12. Site fencing will then be removed at the head of the pier.
13. During the works, fishermen will be advised if the works are likely to interrupt with fish landings.
14. A hydrographic survey will be carried out upon completion of the breakwater to ensure no debris is left on the sea bed.

3.3 Phase 2

The Contractor will then commence with the construction of phase 2 of the development which comprises of the installation of marina, floating breakwater to east of the marina and a commercial pontoon.

The Contractor will require temporary access to the head of the pier to allow for the connection of the access gangway to the commercial pontoons.

The following items of work are envisaged:

1. A barge will be mobilised to site to allow for the driving of tubular steel piles;
2. Pontoons will be constructed in factory conditions and delivered to the site by road;
3. Steel piles will be brought to the site compound and painted on site.
4. Delivery of pontoons will be staggered to suit the speed of installation. Any storage of pontoons will be at the main site compound;
5. Pontoon units will be brought to the existing pier and unloaded to the water;
6. The commercial pontoons will be completed first in order to avoid further disruption to fishing boats;
7. The barge will tow the pontoons to the required area;
8. Pile guides will have been manufactured with the pontoons. The Contractor will ensure the alignment of the pontoons is correct, and use the pile guides as a template for the positioning of the piles.
9. The Contractor will use a vibration hammer to drive the piles due to the soft nature of the sea bed.
10. The pontoons will then be connected to the piles;

11. Gangways will be installed to allow access to the pontoons;
12. Services will be installed on the pontoons;
13. Pile caps will be installed on the piles;

3.4 Phase 3

The Contractor will then commence with the construction of the carpark area. The construction access road will have been previously constructed.
The following items of work are envisaged:

1. The Contractor will begin hauling engineering fill material to the site to the area that will be the edge of the revetment;
2. The Contractor will then begin construction of the rock armour revetment;
3. The Contractor will begin construction of the 25m long loading pier from reinforced concrete;
4. Construction of the carpark surface will commence;
5. Carparking spaces will be delineated with line painting;
6. Construction of the marina facilities building will commence;
7. The 10m wide reinforced concrete slipway will be constructed.
8. Lighting and furniture will be fixed to the carpark and slipway. This will include the crane for loading and unloading vessels.

4.0 ENVIRONMENTAL PROTECTION

All works will be carried out in accordance with CIRIA "Coastal and Marine Environmental Site Guide" (C584). Works will also be in accordance with the granted Planning Permission Conditions and Foreshore Lease/Licence Conditions.

All works will adhere to mitigation measures proposed in the EIS and all other submitted reports, foreshore lease conditions and planning conditions.