

**Berth 50 Road Access/Egress &
Pontoons**

**DUBLIN PORT
Method Statement Outline**

September 2017



JOB TITLE: BERTH 50 ROAD ACCESS/EGRESS & PONTOONS FOR TUGS

REPORT TITLE METHOD STATEMENT OUTLINE

DBFL JOB NUMBER: 170157

REPORT REF: 170157-REP001-METHOD STATEMENT OUTLINE

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REVISION	ISSUE DATE	VERSION	PREPARED	REVIEWED	APPROVED
-	SEP 2017	ISSUE	DAVID BOURKE	BILL BATES	DAN REILLY
A	SEP 2017	ISSUE	DAVID BOURKE	BILL BATES	DAN REILLY
B	OCT 2017	ISSUE	DAVID BOURKE	BILL BATES	DAN REILLY

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1.0 INTRODUCTION

1.1 Background

DBFL Consulting Engineers were requested by Dublin Port Company (DPC), through the Programme Management Office, to prepare a Method Statement Outline report to supplement a drawing package, prepared in support of a planning application, for the construction of a heavy duty floating dock (pontoon), access walkway, access road, boundary security and lighting at Berth 50 within the Dublin Port Operational Zone.

Dublin Port wishes to re-develop the area in order to facilitate safe access and egress to and from their harbour tug fleet and other craft as necessary, whilst satisfying the functional requirements of DPC and future operators.

The aim of this supplementary report is to provide an overview of the proposed works, their potential impact and outline proposals for the management of these impacts.

1.2 Existing Site

Dublin Port is situated on the River Liffey which flows through the city of Dublin before entering Dublin Bay. The subject site is located within the Dublin Port Operational Zone and has boundaries along Alexandra Road and Terminal Road North as shown in Figure 1. Stena Line and DFT are the current operators to the east and west of the site, respectively. The site boundary for this application is defined on drawing CP1750-170157-2000-1.

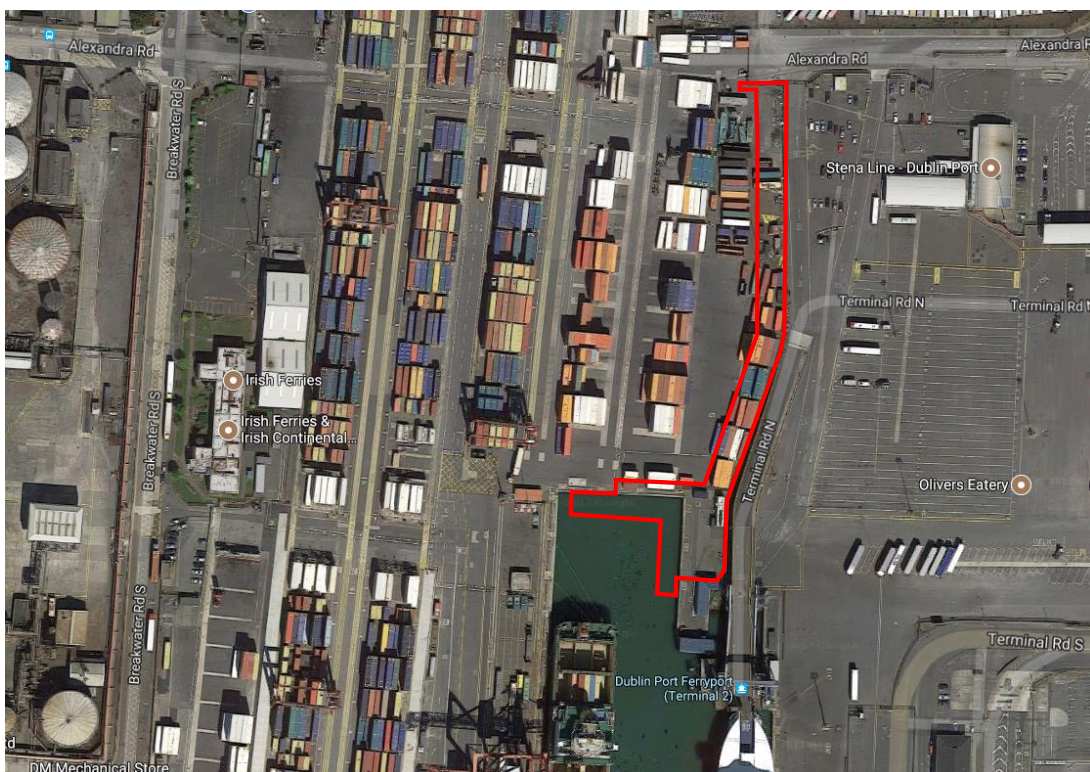


Figure 1: Site Location

Details of existing site and structures are outlined in Table 1 below.

Site Area (m ²)	Site Location	Building Ref.	Description	Drawing Ref.	Building Area (m ²)
3535	See Figure 1 and 170157-2000-2	Generator	Generator	170157-2000-3	30.5
		A	One-storey substation	170157-2000-3	79.5
		B	One-storey substation	170157-2000-3	86.4

Table 1: Existing Site and Structures

1.3 Rationale for Development

The current arrangement for access to and securing of the harbour tugs at the berth is an unconventional system with a number of health and safety concerns. The current system is not fit-for-purpose despite modifications to try and reduce the risk factors. DPC require a heavy duty pontoon capable of safely mooring and accessing/egressing 2 No. 24m harbour tugs (Beaufort and Shackleton). A new road, gate, car park, security fencing and lighting are also required and are included in this report.

1.4 Foreshore Licence

The Foreshore Acts require that before the commencement of any works or activity (including the erection of any structures) on State-owned foreshore, a licence or lease must be obtained for works on the foreshore. Therefore, a Foreshore Licence application shall be submitted.

2.0 Proposed Development

2.1 Overview

The upgrade of the berth and road, the subject application, includes for the provision of a new road, pontoon system, car park, lighting, CCTV and new security fencing along sections of the boundary of the proposed scheme together with a security gate.

2.2 General Site Clearance

The site will generally be cleared of containers, overgrowth, existing walls where outlined, plinths, fences, bollards, etc, and removed from site for reuse within the Port Operational Zone or for disposal at an approved licensed facility.

2.3 Earthworks

Once the general site clearance is completed, those areas of the site identified for resurfacing will then be reduced to formation level in preparation of a new pavement and foundation construction described in subsequent sections.

2.4 Drainage & Utilities

Drainage

No proposed drainage work required in the area.

Utilities

Ducting will be installed in order to provide the pontoons with power and to provide street lighting along the access road. Ducting will also be required for the CCTV installation. Ducting will be provided below new pedestrian footpaths and plinths.

2.5 Pavement

Traffic volumes have not been confirmed, but heavy traffic loadings are likely as with other locations within the Port Operational Zone. A heavy duty pavement will be required. A pavement already exists in the area. It is envisaged that the new roadway will be an extension of the existing pavement and that only a small portion of the road will require a brand new pavement construction. This will have to be confirmed following a review of Ground Investigation data. Specialist contractors will be engaged to carry out the required site investigative works. A proposed pavement layout is provided on drawing CP1750-170157-2100-1.

2.6 Boundary Security

The eastern side of the site is bound by an existing fence that separates Stena Line and DFT. This fence is to remain in place. The western side of the site requires a new palisade fence to separate the new road from the DFT operational area.

2.7 CCTV/Lighting

Foundations for CCTV poles and 12m high perimeter lighting columns are proposed as part of the works (see drawing CP1750-170157-2100-1). When pavement construction is complete, above ground services will be commissioned and installed.

Localised lighting is proposed to illuminate the pontoons, access walkway and car park for safe access.

As used in recent similar yard projects in the port, lighting will be modern LED technology, energy efficient lighting suitable for marine environments. The light fittings include high directional features limiting glare, over spill and light pollution. Further energy saving measures include lux (photocell) detection, movement detection and dimming control which reduce light levels to 25% when no activity is detected in the area.

2.8 Mooring System

The proposed mooring system comprises a number of floating dock sections (pontoons), which rise and fall with the tide. The pontoons shall be clamped to vertical guides to keep them in position. An access walkway will connect the pontoons to the quay wall. The access walkway shall also be designed to rise and fall with the tides. The proposed pontoons and walkway shall be manufactured off-site.

The proposed pontoon will incorporate life-saving equipment, lights and electrical junction box (to connect the tugs to a shore power supply). The edges of the pontoon shall be strongly fendered. Specialist contractors will be engaged to carry out the required marine works. A proposed pontoon layout is provided on drawing CP1750-170157-2100-1 included with this application.

3.0 Outline Environmental Assessment

3.1 General

The proposed construction activities are to be undertaken within a heavily industrialised area that is fully managed and coordinated at all times by DPC in accordance with all relevant environmental legislation and guidance.

The procurement process, associated with these works, will ensure that only licensed and authorised specialist contractors will be employed to undertake the works.

3.2 Ecology

Demolition and construction activities can give rise to airborne and waterborne pollutants. Mitigation measures may be necessary to limit the impact on the local ecology. All activities will be restricted to the locations associated with the aforementioned site. The following risks posed by the works have been considered.

Water Quality

The site to be developed is relatively close to the Liffey Estuary, the nearest water body. Although the industrial nature of the Port Operational Zone is likely to pose a greater risk to local water quality, mitigation measures will be employed to limit the risk of demolition/construction waste and processing activities associated with these works impacting on the local water quality. All activities will be restricted to the identified location associated with the aforementioned site.

Air Quality

Demolition, construction and processing activities may give rise to dust and hazardous airborne contaminants. Measures will be provided and monitoring undertaken, as necessary, to limit the risk of waste, or processing activities, impacting on the local air quality. All activities will be restricted to the locations associated with each of the aforementioned site.

Noise

The Port Operational Zone is a heavily industrial area that produces a lot of background noise. Nevertheless, there is the potential for the demolition, construction and processing activities to increase this risk if not adequately managed. Those at risk would generally include the general public and more so port operatives. Measures will be provided and monitoring undertaken, as necessary, to limit this risk.

3.3 Mitigation Measures

The majority of the risks outlined above will be accounted for in the development of the design process and the production of the Specialist Contractor's Construction Method Statement, which will be based on this outline plan.

The following measures will be employed to minimise impact of the works:

- Suitable and sufficient barrier protection measures will be provided to prevent spillage to the marine environment.
- Specialist dust suppression measures will be employed in accordance with best practice.
- Measures will be employed as directed in BS5228-1: 2009 Code of practice for noise and vibration control on construction and open sites.
- Low noise plant and equipment will be employed as far as possible. Where this is not available, noise barriers will be provided to limit travel beyond the site and specialist equipment provided to protect those within the site.

3.4 Construction Plans

As part of the follow up compliance process with Dublin City Council Planning and Environmental sections, further detailed demolition and construction management plans will be submitted for information by the selected Specialist Contractor(s). This will provide further detail on the above outline mitigation measures as well as equipment proposed. The plan will also include sections on:

- Waste Management and disposal of residual waste material including disposal locations.
- Construction Traffic Management Plan looking at routing and impact on port operational activities and the surrounding road network as well as the bringing to and taking away of materials from site.

4.0 Conclusions

This supplementary Method Statement Outline has provided an initial plan for site clearance and the development/construction of a new pontoon system and new road within the Dublin Port Operational Zone.

Impact on the surrounding environment has been considered, in the context of ongoing port operational activities, and has outlined measures to mitigate the risks associated with the proposed construction works. The report also provides a framework for development of the detailed design and construction strategy for the proposed works.

