



DRYDOCKING FACILITY  
PROJECT

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December 2021

# Dock Yard

Project Summary

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## 1. Introduction

In 2015, significant hydrocarbon deposits were discovered by ExxonMobil in ultra-deep offshore exploration. This first discovery was followed by 12 more discoveries over the next four years. ExxonMobil estimates that there are approximately 8.5 billion barrels of recoverable oil reserves in Guyana's Stabroek Block basin based on their current geographic exploration. It is estimated that by 2026, Guyana will produce 750,000 barrels of oil per day (bpd), the production of which will result in a significant revenue stream to the country and the scope for opportunities which will contribute to broader economic development.

ExxonMobil commenced oil production offshore in December 2019 and several other developments are expected over the next few years. Joint Venture arrangements and partnerships between Guyanese enterprises and international companies are accelerating the movement along the learning curve for Guyanese in the oil and gas sector and all peripheral sectors which support the oil and gas industry. Since the discovery in 2015, and subsequent production of oil in 2019, there has been a gratuitous increase in the amount of maritime activity in Guyana. Thus, by logical extension, the rate at which services will need to be provided to support this increase in maritime activity will need to increase.

There exists an overall deficit in infrastructure in Guyana which is particularly underscored in the maritime sector. The impact of inadequate facilities to accommodate the work in the maritime sector represents a loss of local content and opportunities to Guyanese. Without supporting infrastructure, much of the business opportunities are carried to other countries where services can be carried out in Guyana. This will result in significant benefits to the local economy including employment, duties and taxes, ancillary goods and services and capacity-building.

It is on the heels of these economic developments, both historical and projected, that Dock Yard (DY) was established in Guyana. Based on the foresight of the company's principal, DY is seeking to undertake this project. The scope of the project is the establishment of a dry-docking facility in Guyana, with the specific intention of

servicing the aforementioned increase in maritime activity. This will be a pioneering project and one of the flagship projects in the maritime industry within Guyana's landscape.

Dock Yard, a business duly registered under the Business Names (Registration Act, Cap 90:05) of the Laws of Guyana, is a ship repair and drydocking facility geared to carry out maintenance and repairs to Ships. Its principal office is located at Lot 12 Supply East Bank Demerara. Dock Yard's aim is to provide quality services for the Maritime industry.

Vessels owners and operators would have acute operational issues if their vessels are not routinely maintained creating inherent risks for crew members and maritime traffic. Therefore, it is imperative to resolve these issues that would adversely impact on the industry. In addition, it is by international convention that vessels operating any part of the world need to be dry-docked once every five years. This is also in accordance to Wilhelmsen - a company with the largest maritime network in the world. This puts Dock Yard at a distinct advantage since it has the only floating dock in all of Guyana.

This project summary document describes the proposed initiative – **Dock Yard Dry-Docking Facility** (the proposed project), an industry leading facility for the maritime sector including the possible environmental and social impacts. This project summary was prepared as part of a suite of documents to furnish to various agencies, including but not limited to: financial institutions and regulatory agencies in Guyana, particularly the Environmental Protection Agency (EPA) to fulfill the requirement for environmental authorization. Upon receipt of this project summary and requisite application form, the EPA will ascertain whether an Environmental Impact Assessment (EIA) will be required in accordance with Section 11 of the Environmental Protection Act of 1996 (Cap 20:05 Laws of Cooperative Republic of Guyana).

## 2. Proposed Project Location and Surrounding Land Use

### 2.1 Location

The facility will be located on the eastern bank of the Demerara River comprising approximately thirty thousand square feet (30,000 sq. ft) with a concrete foundation and floor. To the west of the facility is the Demerara River. On the easterly side on the facility is the bank of the Demerara River. On the bank of the river, there also exists a two-lane road facilitating all types of vehicular traffic (light and industrial). Further east, across the road, is a narrow strip of residential housing.

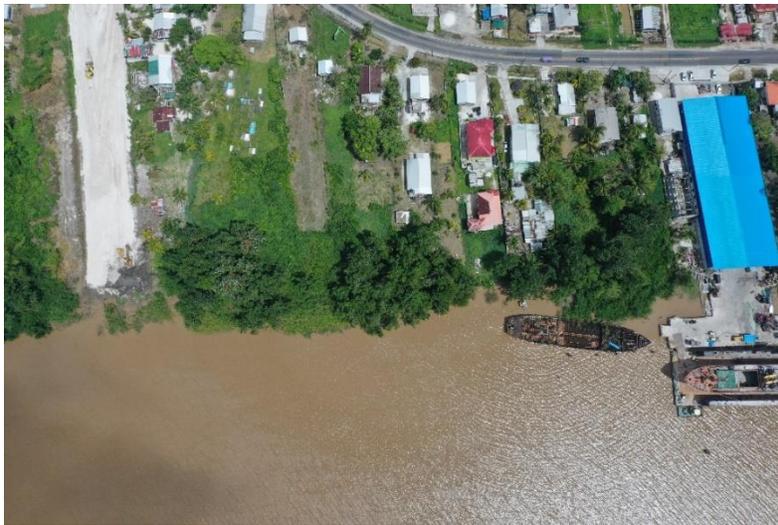
Figure 1 - Google Earth Proposed Location



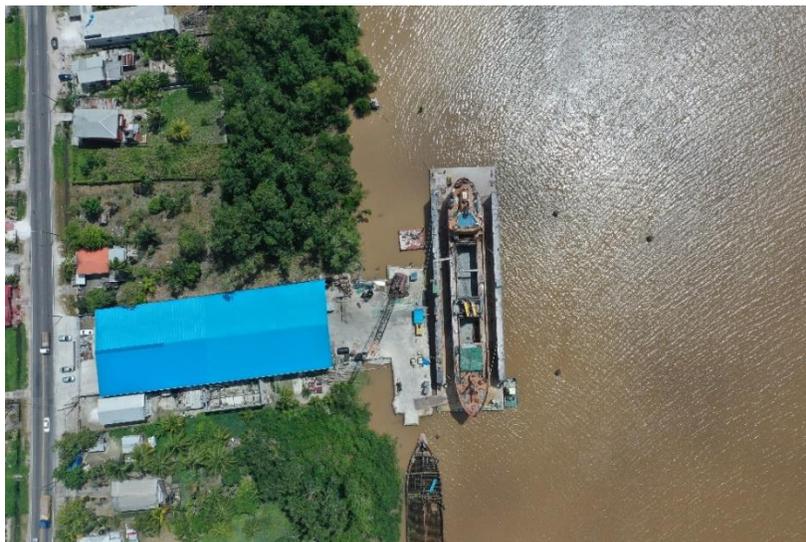
## 2.1 Surrounding Land Use

The Supply area consists of mixed residential and commercial area. Immediately south and approximately 0.2 to 0.5 km of the proposed project area is an area which consists of approximately three (3) homes with thereabouts of nine (9) persons residing. To the north, there between 0.2 to 0.5km, is an area with four (4) homes with about 12 persons total. East and South East are 10 homes with approximately 75 persons in total residing. Further east, immediately after the strip of homes, exists only vegetation.

*Figure 2 - Photo showing land use north of the site*



*Figure 3 - Photo showing south of the proposed site location – view of immediate south*



### 3. Project Design

#### 3.1 Overview

Dock Yard's aim is to provide quality services for the Maritime industry. Ordinarily, marine vessel owners and operators would have major operational issues if their vessels are not routinely maintained. Therefore, it is important to resolve these issues that would create more expenses. In addition, it is by law that vessels operating any part of the world need to be dry-docked once every five years. This is according to Wilhelmsen – a company with the largest maritime network in the world. This statutory obligation puts DY at a distinct advantage since it has the only floating dock in all of Guyana.

In a general sense, customers will receive quality services from Dock Yard through the following means:

1. **Hull Inspection** – Maintaining proper hull inspection is an important step of the process during dry-docking, since it is a requirement to audio gauge the hull of the vessel. By doing this, it allows Dock Yard to take all the appropriate measures in giving the customer a well-maintained vessel hull as it were from the manufacturers.
2. **Full Maintenance** - Dock Yard's core business will be based on descaling & washing hull, sand blasting, painting & steel charge on each vessel.
3. **Services**- Dock Yard will also provide services such as shore-power, fresh water, waste removal, equipment rental & also a fully geared machining shop. These, coupled with the other services will allow Dock Yard to be a "One Stop Shop" to offer its service of Dry Docking to the maritime sector.

As it relates to the facility, there is one (1) one hundred-and fifty-ton crane which sits at the south end of the wharf. At Dock Yard, there is a concrete wharf facility that spans one hundred and forty-five feet and the drydock floats alongside the wharf.

The Dry-Dock measures two hundred and seventy feet in length and seventy feet in width and weighs approximately two thousand tons. The drydock can hold vessels that weigh up to five thousand tons with a maximum length of three hundred feet. To

lift any boat, the operation would entail sinking the drydock to the desired depth drive the vessel on and then pump the drydock up with the use of submerged pumps located at the bottom of the drydock.

### **3.2 Project Brief**

The Dry-Dock is a US\$3M investment which will aim to service the increase in offshore traffic associated with the rapid economic expansion of Guyana. There would be direct employment created for 25 persons on a full-time basis. However, based on the level of activity, there is a cyclical expansion of the number of persons that are employed. This can range from 100 to 150 additional employees on a part-time basis. This fluctuation would occur approximately 2 to 3 times annually as marine traffic follows, with a lag, the business cycle.

These employees would fall under different aspects of management such as Finance, Engineering, Operations and Human Resources. Contractors of Dock Yard would be given employment based on the demanded jobs that are on the Dry Dock. These contractors would range from: Welders, Fabricators, Skilled Labourers, General Labourers and Foremen. Dock Yard intends to pay keen emphasis on certification in order to undertake any repairs on its clients' vessels. For this to be possible, a third party would certify its employees and equipment for the following areas:

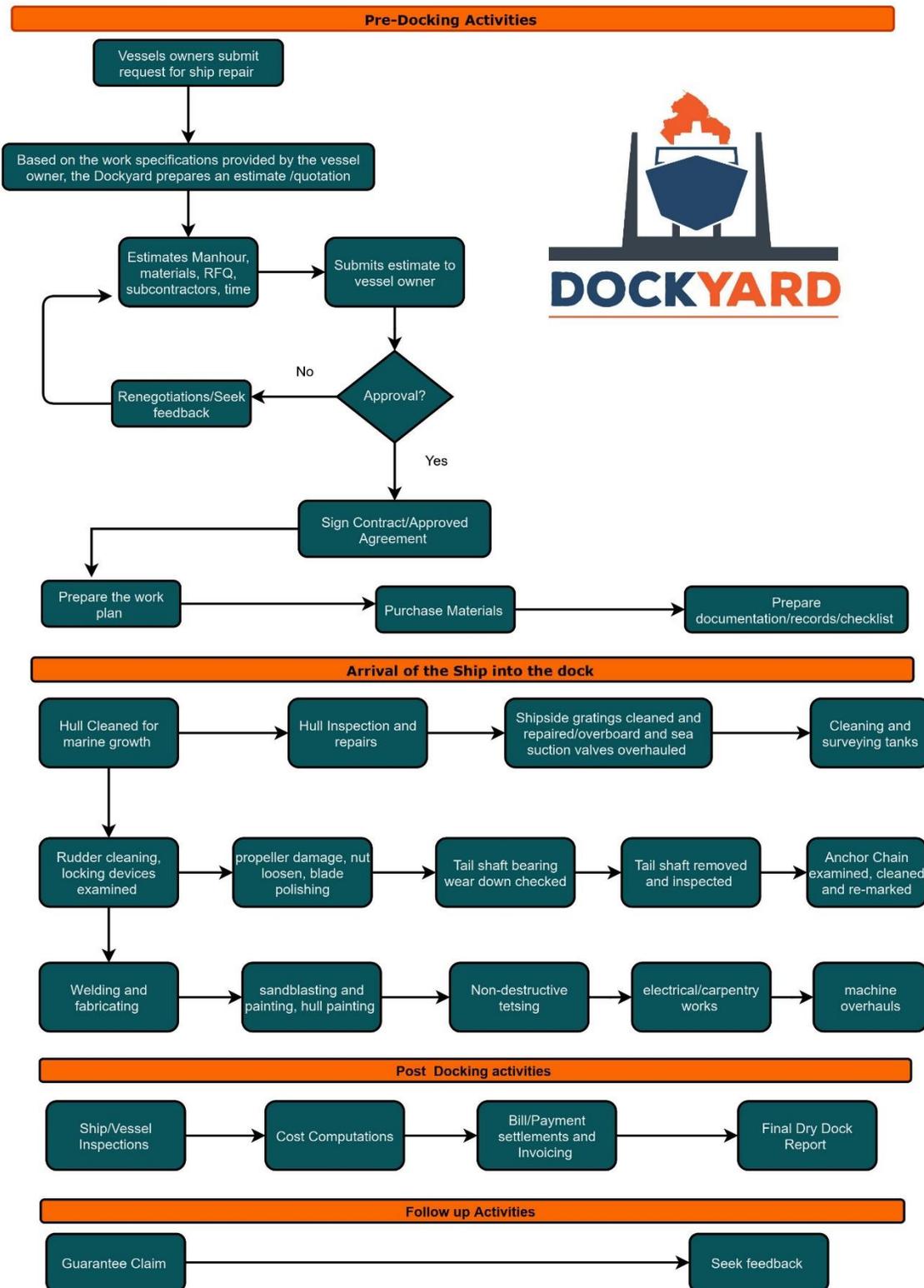
- to paint vessels or barges;
- to do any type of abrasive blasting;
- changing of plates (steel)

Dock Yard, in undertaking its market research and through industry experience by the principal, has found that Kelemarc Sales and Consultancy Services should be the third party to carry out the certification process. With these certifications, it will facilitate Dock Yard accessing clients and operating a high standard.

### **3.3 Operational Flow**

Figure 4 depicts a process flow of DockYard Activities which highlights the process through four (4) steps: pre-docking activities, docking, post-docking and follow-up activities.

Figure 4 - Process Flow of DockYard Activities



#### 4. Potential Effects on the Environment and Mitigation Plan

The main activities associated with the project during the construction phase are minimal since the area has already been utilized for maritime activity in the past. There will be no significant land clearing, earthworks, stockpiling, machine operation or concrete works being undertaken in the course of this project which will have the potential to affect the environment directly or indirectly.

Thus, there exists limited to no potential impacts to loss of land and habitats, pollution of air or heavy sedimentation of surface water. Notwithstanding, there is expected to be the generation of some degree of solid waste, as well as, health and safety related. The impacts, however, are expected to be insignificant and short term in duration and therefore mitigable.

The following is a preliminary assessment of possible impacts to environment and human health and the general mitigation measures that can be implemented. It must be noted that should a detailed Environmental and Social Impact Assessment be necessary, it will be undertaken where direct and indirect impacts would be assessed and appropriate avoidance and mitigation measures would be proposed.

*Figure 5 - Possible Environmental and Social Impacts and Mitigation Measures*

<b>Environmental Component</b>	<b>Nature of Impact</b>	<b>Impact significance</b>	<b>Mitigation measures</b>
Land	No erosion of land. No significant usage of the land beyond the existing use.	Localised, Short-term, mitigable, insignificant, reversible	Not material enough for measures to be necessary
Surface Waters	Sedimentation due to land revetting, reclamation and construction especially during rainfall events and storm water run-off	Insignificant, short-term, mitigable, localized	Avoid earthworks during rain events. Install appropriate sediment traps where appropriate.
Waste	Generation of the following type of waste: material waste, steel,	Insignificant, mitigable	Recover and recycle as far as practical. Garbage receptacles

	welding rods and sticks, operational waste from human inhabitant		placed at appropriate locations on site and covered. Construction debris will be segregated and stored in storage bins provided at the site. Regular collection and disposal by authorized disposal services for disposal at Haags Bosch landfill. Develop and implement waste management plan. Third party at an off-site location with a pre-set level for disposal when that quantum is attained.
Air Quality and Noise	Diesel powered generators emission of greenhouse gases, Noise from the operation of the machinery, dust particles emanating from sandblasting	Insignificant, mitigable	Implementation of curtains whilst sandblasting to prevent or contain lateral flow of dust
Mangroves and Fauna	No impact as no removal of mangroves are expected	No Impact	No need to implement any measure
Human Health and Safety	Potential for accidents and upset conditions	Mitigable	Provide workers with training in the proper

	related to workers safety and health during construction and operations.		use and maintenance of equipment. Appropriate PPE and safety equipment. Proper housekeeping to be undertaken daily. Plan to train for first aid. Completing a standardized operation manual. Emergency response plans being developed with a view of being implemented.
Social Impact	Positive, employment, creation of a commercial hub	Localized	No need to mitigate