

Coastal Works Review

**Eliot Edward Mason – Construction of a Private Residential Dock
Block: 64A Parcel: 126**



CAYMAN ISLANDS GOVERNMENT

**PREPARED FOR: MINISTRY OF MINISTRY OF HEALTH, ENVIRONMENT, CULTURE AND
HOUSING**

March 26, 2021

Authored by: Technical Review Committee - Department of Environment

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Project Proposal

The applicant- Eliot Edward Mason - is seeking permission for the reconstruction of a private residential dock which was destroyed in Hurricane Ivan located at 764 Seaview Road, East End as shown on Figure 1. The proposed dock is intended for use of the property owner including the mooring of boats.

The Proposed dock

The works for the installation of the proposed dock will affect approximately 1091.34ft² of Crown property and will be in the previous dock footprint. The full length of the dock from shore to the terminal end is 124ft. The first shore perpendicular dock walkway before the octagonal section of the dock shall measure 74ft 4in long by a 6ft wide. The octagonal section with the cabana is 173.82ft² which leads to another walkway (24ft 2in long by 6ft wide) with a T-shaped ending (10ft 7in long by 25ft 10in wide). The dock will be supported by the existing 6in steel and concrete reinforced piles. The existing piles will be straightened and reinforced with concrete and, where needed, new piles will be inserted into the seabed by water jetting. The decking will be comprised of 2in by 8in timber planks spaced 1/2in apart. There will also be side skirting installed which comprises of 2in by 8in timber planks. The dock shall be approximately 4ft 6in above mean sea level. The works will be carried out using a floating platform. Silt screens will be in place to contain the dispersion of silt disturbed by the construction.

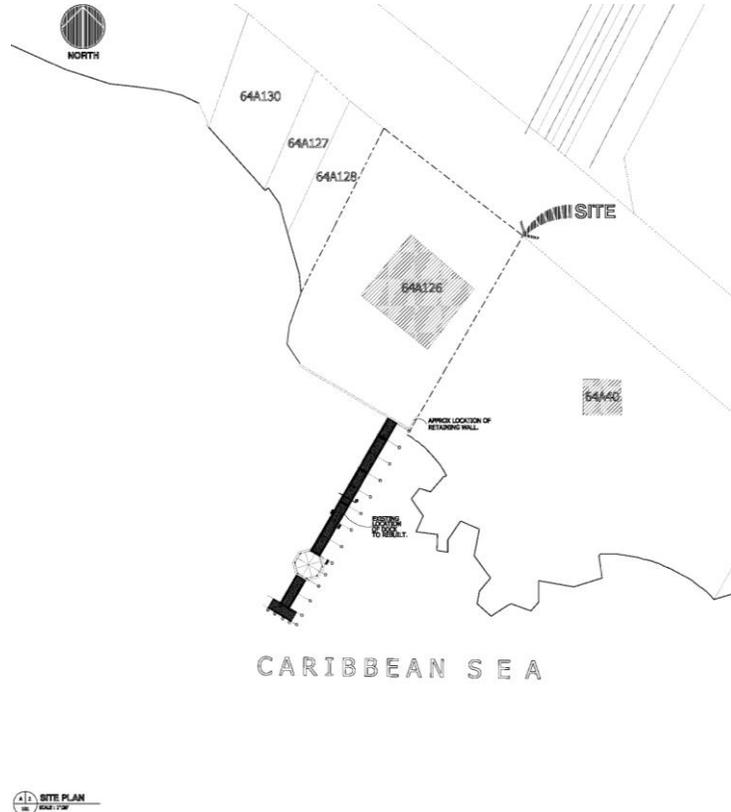


FIGURE 1: PLAN EXTRACT SHOWING PROPOSED DOCK LOCATION (SOURCE: ISLAND DRAFTING FEBRUARY, 2021)

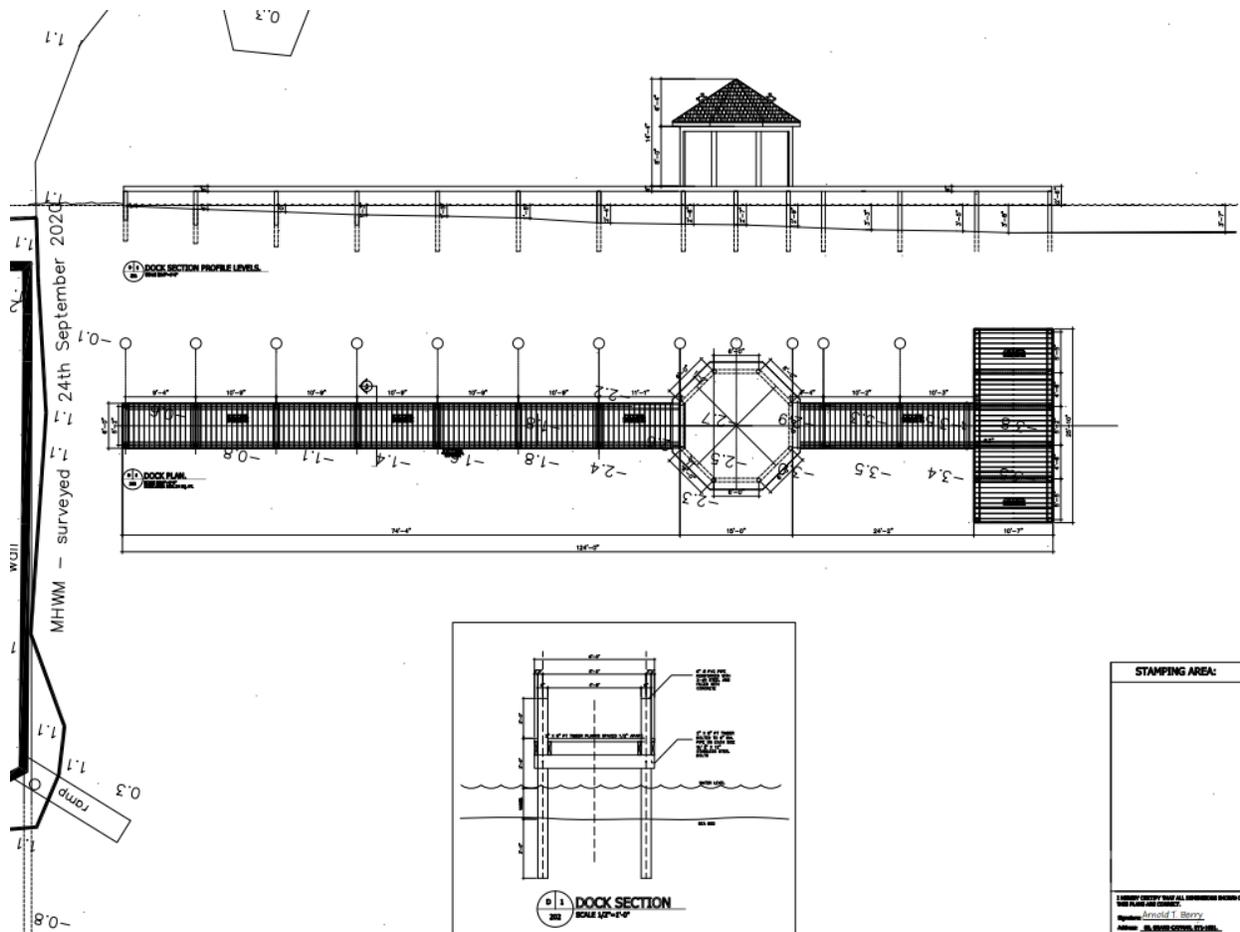


FIGURE 2: PLAN EXTRACT SHOWING DIMENSIONS OF THE PROPOSED DOCK (ISLAND DRAFTING 15 MARCH 2021)

Background

The proposed dock is to replace a dock that was damaged in Hurricane Ivan in 2004. However, the DOE does not have any records of a dock in this location. A review of aerial imagery confirms that there was a dock present in 1994 and 1999 (see Figure 3), therefore the dock is considered to be 'grandfathered'. Given that the proposed dock is to be built in the footprint of the previous dock using the existing piles where possible (left from Hurricane Ivan), as shown in Figure 4, with additional new pilings, it is recommended that Royalty fees be waived and only mitigation and administrative fees be levied.



FIGURE 3: LIS AERIAL IMAGERY SHOWING PREVIOUS EXISTING DOCK IN 1994 (LEFT) AND IN 1999 (RIGHT) (SOURCE LANDS AND SURVEY, 1994, 1999)



FIGURE 4: LIS 2013 AERIAL IMAGERY SHOWING EXISTING PVC ON SITE (LEFT) (SOURCE: LANDS AND SURVEY, 2013) AND PHOTO SHOWING EXISTING PVC PILES ON SITE (SOURCE: DOE, 15 FEBRUARY, 2021)

Environmental Impacts

The proposed dock is located within a Marine Reserve. Therefore the environmental impacts for the project are identified as follows:

Marine Reserve

The proposed works are located in a Marine Reserve, which is a specific marine area identified as needing protection. The Marine Reserves were primarily created to protect the stocks for marine species such as lobster and conch, including their habitats, especially seagrass that are vital for their survival. Construction of the proposed dock and removal of the existing dock has the potential to impact these important habitats.

Loss of Benthic Habitat

The dock application states in section 13 b that there is no seagrass in the footprint of the proposed dock. However, a recent site visit to the site showed that there has been some seagrass recovery within the footprint of the dock (as shown in figure 3). Impacts to seagrass beds are a particular concern especially from the long-term shading caused by the dock structure which reduces vital light penetration required for seagrass growth and productivity. Environmental mitigation fees have therefore been recommended.

Construction Impacts

Direct environmental impacts will result from the construction of the proposed dock, mainly through the installation of the PVC pipes into the seabed and removal of derelict pilings that cannot be used in the proposed construction. The fine silts, sediments and sands of the seabed in this area are easily disturbed and suspended resulting in detrimental sediment plumes which can impact surrounding seagrass communities and marine organisms that depend on good water quality. Therefore it will be important to limit the impacts of sediment plumes generated during construction of the dock through the use of silt screens. The applicant should ensure that the structural integrity of the existing piles is adequate for the dock to be able to withstand impacts from inclement weather events.

Comments & Recommendations

The Department **recommends this application for approval** subject to the standard licence conditions appended below. Approval is recommended as there is no increase in footprint of dock space and the works will involve the reinstatement of a previously authorised dock. The DoE does not recommend the charging of Royalty fees for this Coastal Works Permit as the previous dock is considered to be grandfathered in and new dock is to be sited within the same footprint using existing pilings.

The Department has outlined its recommended licence fees (Environmental Mitigation and Administration & Monitoring) in Appendix 1.

Environmental Management Unit
For Director of Environment