

Port of London Authority
Denton Radar Enhancement Proposal
Additional Information

Please see below some additional information and justification with regard to planning application 20240590 - Upgrade to existing radar tower (Denton Wharf)

1. Alternate Locations

Following the planned closure of the PLA's Thames Barrier Navigation Centre in the Royal Borough of Greenwich and the associated loss of primary backup location for VTS, Marine House Denton has been selected as an alternative site to ensure the ongoing resilience of VTS operations along the Tidal Thames. This is primarily due to:

- There is already an existing tower on site within an area of land owned by the PLA which serves as the PLA's principle operational base.
- The nearby Port Control Centre at London River House, Royal Pier Road Gravesend already includes an existing tower, however this has already gone under a number of changes and is located in a sensitive area, such as a Conservation Area and the Grade II Listed Royal Terrace Pier. Forms part of planning permission 20221294 granted in December 2022.
- This site at Denton Wharf is identified as an existing industrial use within the Local Plan which requires a waterside location because of the types of activity undertaken at the site. It is also identified as a strategically important facility as a safeguarded wharf. This proposal will ensure the area retains and increases marine related activity to ensure continuing safe navigation on the Tidal Thames. The PLA own no other compatible sites for this type of infrastructure.

As part of the project various potential locations were considered for the tower, within the Denton Wharf complex with the impact on the wider PLA ensemble critical to the decision. The proposed tower location enhancing the existing tower will be of a similar design than existing with the removal of current existing platform. The map and table below show the alternate locations along with the preferred solution.



Map 1.1: Options considered for enhanced tower.

Table 1.1: Options considered for tower enhancement.

	Location	Reason for / against proposal
A	At site of existing tower within Denton Wharf	- Site is already an established tower, currently 18 metres in height. - The proposal will not require any ground works and will make better use of existing infrastructure. - Will have a limited impact on the surrounding area with one tower of limited height increase.
B	Located at Denton Wharf working area, north of Mark Lane	- Would be closer to the riverside area, potentially providing better and wider overall coverage. - Would visually be more prominent from the river and nearby residential units which could negatively affect setting. - Would be more visual prominent from the riverside and nearby riverside footpaths to the north. - Would create a reduction in the essential working area of the wharf for other PLA operations. Site would be located within a busy operational and storage area of Denton Wharf – raises various health and safety concerns. - Would result in two towers being present in the area, an existing 18m tower and a tower up to 30metres in height.
C	Located south of Mark Lane within PLA Complex	- Would not be directly adjacent to Mark Lane. - Would be more visual prominent from the riverside and nearby riverside footpaths to the north. - Would create a reduction in the essential working area of the wharf for other PLA operations. Site would be located within a busy operational area of Denton Wharf – raises various health and safety concerns. - Would result in two towers being present in the area, an existing 18m tower and a tower up to 30metres in height.
D	Located on roof of existing warehouses at Denton Wharf	- Would not be located directly adjacent to Mark Lane - Structural surveys required to assess capability of increased infrastructure on the roof – likely more intensive works required. - Roof has been recently utilised for solar panel infrastructure, leaving limited space for potential tower construction. - Would result in two towers being present in the area, an existing 18m tower and a tower up to 30metres in height.

E	Located in the South East of PLA Denton Wharf complex	- Furthest proposed location from Mark Lane and existing nearby residential units. - Would be located close to Thames and Medway Canal and adjacent footpath, tower would therefore be more negatively prominent, particularly on the bend of the road at Norfolk Road / Mark Lane. - Would be located within a busy operational and storage area of Denton Wharf – raises potential risk of vehicular impact. Area also has previously been used as an access point for the facility which would become blocked. - Would result in two towers being present in the area, an existing 18m tower and a tower up to 30metres in height.
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2. Further Justification On Need For Tower.

The existing tower at Marine House was originally designed for cellular communications and is not fully compatible with the strict requirements of equipment used by the PLA to communicate between PLA shore-based radar sites and between VTS and river users. For the existing tower to be utilised for effective communications for VTS operations, it requires an upgrade to provide the high availability of services necessary to allow the PLA to ensure continuing safe navigation on the Tidal Thames as part of its role as the Statutory Harbour Authority for the Tidal Thames.

Ideally, to allow for maximum coverage for the PLA's VTS operations the tower should be higher than 31 metres in height. However, this would require a completely new tower rebuild with an increased footprint and associated works that would have a larger visual impact on the local area. A decision was therefore made to utilise the existing 18m high tower, to allow for a more modest increase in height of 13 metres to 31 metres that would require no ground works or change to the footprint of the existing structure. This enables the height increase to be designed to have the minimum impact on the local area by maintaining a slim width of 2.5 to 1.75 metres. Any slight decrease in height from the proposed would still have the same design and therefore the same visual impact for the local area. Additionally, a much smaller extension would result in very limited to minor coverage allowance for the PLA's VTS operations which would make the enhancement unviable to proceed.

3. Visual Impact:

Whilst situated in an established industrial area, Denton Wharf and the proposed tower are also located in proximity to a number of residential properties, and Mark Lane Road which is used to access various sites in this area. The impact of the proposed tower on the surrounding area and its design has been carefully considered and this has fed into the proposal to carry out an enhancement of the existing tower rather than construct a new, larger tower with a larger footprint and increased height which would not be in keeping with the surrounding area.

The below map and verified views provide a number of viewpoints which are considered to be key for this area. This information provides a reasonable and appropriate sense of scale and setting of the proposed tower to ensure it fits in and has a minimal effect on its surroundings. The viewpoints have been completed in-house and present an accurate view of the proposed tower in the context of the surrounding area. Related to this consideration has also been given to the residential properties around Waterton Avenue to the south of the proposed tower. This has been assessed and due to the raised train line, existing trees and other building obstructions it is considered that there is no impact as a result of the proposed development.



Map 3.1: Viewpoints Context Map.



View A: Existing view facing South from riverside path.



View A: Proposed view facing South from riverside path.



View B: Existing View from Mark Lane facing North.



View B: Proposed View from Mark Lane facing North.



View C: Existing View from Norfolk Road facing North East.



View C: Proposed View from Norfolk Road facing North East