

Planning Statement and Design & Access Statement
Refurbishment works to Royal Terrace Pier,
Royal Pier Road, Gravesend

November 2022

1.0. Introduction:

- 1.1. The construction of Royal Terrace Pier dates back to April 1844 and was opened to the public in 1846. The proceedings of the Institution of Civil Engineers included a paper in April 1845 describing the construction of the pier and details of the costs (a copy is included within Appendix B of the Heritage Statement).
- 1.2. The Pier itself was Listed Grade II in May 1971.
- 1.3. Alexandra Towage commissioned the refurbishment of the Pier in 1977 with the assistance of Engineer R.J. Crocket and Architect David A. Croydon (who also designed Alexandra House in 1973). This work included the removal of the cast iron cladding panels and the replacement of the structure supporting the roof. The Pier was re-clad with glass fibre panels with steel framed windows.
- 1.4. Following the 1989 Marchioness disaster a lifeboat station was established at Gravesend and a mooring provided on Royal Terrace Pier in 2002.

2.0. Port of London Authority Works:

- 2.1. The Port of London Authority (PLA) purchased Royal Terrace Pier in July 2004 as part of a joint reorganisation of PLA and Adsteam Towage operations, with the tugs moving to their current base at Denton Wharf.
- 2.2. The old pontoons at Royal Terrace Pier were removed and a new pontoon (Barge 559) installed on new tubular piles in October 2004. Access took the form of a refurbished brow (originally fabricated in 1928) that had previously serviced the old Tower Pier prior to its replacement in 2000.
- 2.3. The downriver accommodation was refurbished in 2004 for use by PLA crews.

2.4. The internal surfaces of the pier approach were repainted and the lanterns replaced in 2005.

2.5. The Royal National Lifeboat Institution (RNLI) moved from their portacabin type accommodation in Alex House car park into the refurbished upriver accommodation on Royal Terrace Pier in June 2007.

2.6. The entrance and lodge roofs were refurbished in 2008.

2.7. The internal surfaces of the pier approach were redecorated again in 2010.

2.8. The substructure of the pier comprising cast iron and steel beams on cast iron cylinders was repainted in 2011.

2.9. In 2016 LBC consent was granted for the for the reconfiguration of the internal layout within Royal Terrace Pier, installation of a rainwater harvesting system and maintenance/repair of stone work and installation of replacement windows.

2.10. Internal plastic coated metal cladding and covering of corrugated sheeting within the bow entrance elevation was consented and carried out in 2017.

2.11. In 2019 LBC consent was granted for hard and soft landscaping works to the front of the Royal Terrace Pier entrance and forecourt.

3.0. The Proposed works:

3.1. This application for Listed Building Consent seeks approval for the following works:

- A. Repairs and redecoration to existing cast iron lighthouse turret;
- B. Installation of below-deck protection; and
- C. Installation of fall arrest system.

3.2. As part of the works, temporary scaffolding will be in place to facilitate access to the external areas of the pier.

4.0. Repairs and redecoration to existing cast iron lighthouse turret:

4.1. The existing lighthouse turret is in urgent need of repair and it is proposed for refurbishment and redecoration to be carried out.



Figure 1: Images of existing condition of Turret

4.2. It is therefore proposed to carry out the following works:

- The existing weather vane will be carefully removed and set aside for repair and reinstallation;
- The existing copper sheet roof will be replaced with like for like new copper sheeting;
- The lighthouse cast iron cornice will be repaired and redecorated, this includes the cast iron window lintels, mullions and cills. The turret plinth cast iron posts, lintels and cill panels will also be repaired and redecorated, with new corrugated steel sheet infill panels to match the existing.; and
- Existing fittings, electrical wiring and accessories inside the Turret will be disconnected, removed and reinstalled once refurbishment is completed.

4.3. With regard to the proposed choice of cladding material for the repair of the lighthouse, from records obtained about the pier it has been determined that the Pier promenade and T-Head were originally clad with corrugated iron panels. The Annals of the Institute of Civil Engineers for 1845

include an account of a lecture by John Redman, the engineer who designed the pier, describing the use of corrugated iron cladding. This can be found in the associated 'ICE proceedings 8 April 1845 document supplied as part of this application (Appendix B of Heritage Statement) . Page 7 of the PDF includes the quote that:

"The whole is surmounted by a wrought iron roof, with planking and slates, supported upon iron pilasters, and the sides are enclosed by panels and traversing shutters or corrugated iron"

4.4. With regard to lighthouses and lanterns, in the 19th century they were quite popular and there were numerous pattern books available for cast iron lighthouses used and installed around the world. None included any timber elements exposed to the weather except perhaps North American lighthouses, where the plinth bases are often clad in wood shingles. From an investigation by the conservation architect who researched the original repair works, we did not discover any historic photos of the Pier that might have shown the original cladding of the lighthouse.

4.5. Various factors have therefore gone into the decision to replace the modern plywood panels with corrugated metal. These include:

- There was a precedent for the use of corrugated iron sheets on the Pier;
- The historical evidence that indicates lighthouses in the UK never had timber panels as an exterior covering;
- The plywood and batten panels appear to be an attempt to replicate corrugated metal sheets;
- The condition of these panels also appear to be contributing to the deterioration of the cast iron lighthouse structure; and
- Because maintenance of anything beyond the land stage of the Pier is prohibitively expensive due to access.

4.6. It is therefore considered that the proposed decision to replace the modern plywood panels with corrugated metal is because these would be more historically correct and have a longer maintenance-free life cycle than plywood.

4.7. Further details can be found in associated drawings EX-104, EX-105, EX-107, EX-201, DET-101, DET-102, DET-103, DET-210, DET-211 and DET-212

5.0. Installation of below-deck protection:

5.1. New anti-bird netting is proposed to be installed as part of the refurbishment works. During the works the existing anti-bird netting currently installed above the deck will be maintained whilst the below deck works are carried out to deter dislodged pigeons from entering the Pier Head, once the new netting is installed the redundant netting will be removed.



Figure 2: Proposed netting area.

5.2 This is required as the proposed areas are in a poor state, partly due to the open access which has resulted in some health and safety concerns, as can be seen from the images below:



Figure 3: Existing condition underside of pier 1



Figure 4: Existing condition underside of pier 2

5.2. It is therefore proposed that stainless steel netting as a complete enclosure with sides, spanning between the main iron girders from the bays on the line of the stairs to the river end of the Pier will be installed as shown on drawings 353006/EX/107, supported on new stainless steel perimeter carrier wires and cleats, in order to prevent pigeons roosting on exposed ledges.

5.3. The pigeon deterrent netting will be provided to the following areas of the Pier Head: soffit excluding moving gangway; side galleries & soffit of roof, with zip access provided to galleries. Netting to be fabricated in 316 grade stainless steel suitable for the semi-marine environment.

5.3. The existing anti-pigeon spikes will remain in place unless they interfere with the installation of the new frames and prior to the works all guano will be cleared from the work area. Perimeter support wires will be fixed at the level of the bottom flange of the main girders and on top of the existing column capitals and cross braces. The location of the proposed netting will therefore prevent pigeons roosting on exposed ledges.

5.4. See Drawing EX-107 for further detail on this aspect of the proposal.

6.0. Installation of fall arrest system:

6.1. The installation of a fall arrest system is required further to a Health and Safety Risk Assessment of the method of work required to carry out maintenance work including window and gutter cleaning. The PLA is required under Health and Safety legislation to provide a safe means of accessing the external facade of the building for maintenance. Due to the height and nature of the glazing and limited rotation of the panes it has been decided that a fall arrest system is necessary to ensure safe access to the external face.

6.2. The fall arrest system is required due to the need to safely access the external facade of the pier approach and pier head buildings for cleaning and maintenance of the façade, windows and gutter to

enable an operative to work externally over river/foreshore with considerable tidal range in a semi-marine environment. There are existing fall arrest fixings located in the underside of the cast iron gutter. However, these are not considered to be structurally adequate to attach a harness or other potentially load bearing equipment. The images below highlight how the site construction constrains what can be done:



Figure 5. Royal Terrace Pier existing design

6.3. These show there are ties across the top of the gutter at regular intervals that would prevent the safety line from running uninterrupted if the support cable was inside the gutter. It is also considered that a support cable running above the gutter and supported on brackets would not be sufficiently stable. A further consideration is that the support cable needs to be in a place where it is possible to reach it safely to attach and detach the safety harness. A location inside or above the gutter precludes this.

6.4. An alternative option was to potentially locate the support cable on the soffit of the gutter but it has been considered that this would be intrusive, interrupting views of the column head and capital on the promenade cladding.

6.5. It is therefore proposed to add a continuous horizontal rail mounted on the outer vertical face of galvanized steel box gutter to provide access to perimeter of the pier (180m). Access to the rail from land at the east end of pier on north and south sides and via 8No transfer anchor points and windows.

The fall arrest system will be formed of 3M Unirail system Black powder coated aluminium rail in 3m long sections attached to front face of black finish galvanized steel gutter to allow access for gutter & window cleaning & facade maintenance. A black powder coated finish has been proposed for the support cable and fixing cleats, so that these have minimal impact when seen against the backdrop of the gutters and it is considered that this reflects the optimal solution at the pier.

6.6. See drawings DET-215 and GA-103 for further detail.

7.0. Policy Consideration:

7.1 National Planning Policy Framework

The NPPF makes reference to the importance of conserving and enhancing the historic environment, including heritage assets at risk of neglect, decay or other threats. Paragraph 199 of the NPPF advises that consideration should be given to the impact of the proposed development on the significance of a designated asset and that great weight should be given to its conservation. Substantial harm to or loss of a grade II listed building should be exceptional.

7.2 National Planning Policy Guidance on the Historic Environment

With regard to protecting and enhancing the historic environment in the case of buildings, generally the risks of neglect and decay of heritage assets are best addressed through ensuring that they remain in active use that is consistent with their conservation. Ensuring such heritage assets remain used and valued is likely to require sympathetic changes to be made from time to time. Where changes are proposed, the NPPF sets out a clear framework for both plan-making and decision-making in respect of applications for planning permission and listed building consent to ensure that heritage assets are conserved, and where appropriate enhanced, in a manner that is consistent with their significance and thereby achieving sustainable development.

7.3 Gravesham Local Plan Strategy (Adopted) 2014

Gravesham has a distinct and diverse character, with unique heritage as a historic riverside town. The following policies are relevant to the consideration of this Listed Building Application and seek to ensure the character of the town remains enhanced and protected.

- Policy CS19: Development Design Principles. New development will be visually attractive, fit for purpose and locally distinctive.

- Policy CS20: Heritage and the Historic Environment. The Council will accord a high priority towards preservation, protection and enhancement of its heritage and historic environment. This includes the preservation of, amongst other matters, surviving built features.

The pier is also located within the Gravesend Riverside Conservation Area where within the associated Conservation Area Appraisal (2009) the pier is identified as a 'positive building' for the Conservation Area.

8.0. Analysis of the proposed works against planning policy

Design and Impact on the Grade II Listed Pier

8.1. Planning policy requires high quality design, which respects the area within which it is located and contributes positively to its surroundings and it is considered that the proposed external works, particularly the turret refurbishment will have a positive impact on the visual appearance of the Pier itself and its listed status, and ensure that the facility can retain its listed status over the long term.

8.3. All works are considered minor, related to the need to ensure the structure is well maintained and will have minimal impact on the character and appearance of the Pier, with no wider implications or visual impacts to the street scene. The Pier itself is visible on the approach along West Street and Royal Pier Road to the east however all alterations with regard to the fall arrest system have been sensitively designed and will not be evident. The works are predominantly maintenance works to ensure the character and appearance of the pier continues to be of a high quality and does not deteriorate. The works will also ensure that the ongoing maintenance to the external structure can be conducted in a safe environment both now and into the future to ensure that the preservation of the listed Pier is upheld. It is considered that this would be in line with Local Plan policy CS20 and help to enhance the significance of this heritage asset for the borough. Without these required changes, the continuing preservation and ongoing maintenance of the Pier would be harder to achieve.

8.4. The proposed works will ensure that the high quality character and heritage of this area of the borough will be maintained and the Grade II listed structure will continue to make a positive contribution to the local historic environment.

8.5. From the submitted drawings it is considered that the impact of the proposed works on the overall design of Royal Terrace Pier, and its listed status, would be minimal/negligible and would, overall, be an improvement to the existing. Therefore it is considered that the setting of the listed building would not be adversely affected and that the proposed works will help to conserve this important heritage asset for the long term.