





Design Review

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1.0 Introduction and Summary

Goals and Brief

This proposal is submitted by Design Service on behalf of Wandsworth Borough Council.

Design Service was commissioned by Environment and Community Service to undertake a study on the structural issues of the Tooting Bec Lido pump house and the solutions for its reinstatement.

This Design and Access statement will provide information on the location and history of Tooting Bec Lido and explain the need to partially demolish and rebuild the pump house.

The lido welcomes a big community every year, therefore it is important to establish the possibility to maintain and operate the pool.

The project's main goal is to provide a robust building that will accommodate the mechanical equipment aimed at cleaning the water.

The pre-application advice meeting held on the 09/11/18 on site was attended by Senior Planner Esterina Bartilomo and Conservation Officer David Andrews of the London Borough of Wandsworth planning department. The reconstruction of the pump house was discussed and no objections were raised.

Furthermore, the planning application submitted in March 2013 for the construction of the adjacent new pavilion was discussed (planning ref. 2013/1504).

Following planning approval, the original 1906 brick arches that generated the original South entrance were disassembled to give place to the new building.

The original planning application included the proposal to re-erect the arches as a free standing structure between the new pavilion and the pump house. However, this would now generate an obstruction to the pump house reinstatement works and may worsen the structural damages.

The reinstatement of the arches is not part of this application. David Gibson architects are carrying out a separate assessment exploring alternative locations.



South entrance arches prior to demolition



View of the new pavilion from the parking area with the pump house on the background

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2.0 The Site and Surrounding Areas

Existing site

Tooting Bec Lido is located within the Tooting Bec Common next to the railway that connects Balham Station to Streatham Common Station.

The adjacent area of the common, located between the railway and Garrad's Road, is the Garrad's Road conservation area.

(Please refer to the satellite map on the next page).

The Lido is managed by the London Borough of Wandsworth. The pool is the largest openair fresh water pool in the UK being 91.4m long and 30.5m wide and containing one million gallons of water. Tooting Bec Lido was opened to the public in 1906 as a bathing lake. The pump house was built in two phases during the 1930s and 1940s to help cleaning the water.

The original public entrance was relocated from the South to the North-West during the 1990s, making the original entrance arches to the South redundant. These were replaced in 2016 with a new pavilion built to accommodate community Activities (planning ref.2013/1504).

The pump house is located to the South of the pool and West of the pavilion. The building is not listed and does not lie in a conservation area. However, it is on the candidate list for nominated heritage.

More details on the history of Tooting Bec Lido are contained in the attached Heritage Statement.



Aerial view of the pool



Tooting Bec Lido pavilion

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2.0 The Site and Surrounding Areas

Satellite map



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Existing Pump House

The construction consists of a 5m high singlestorey building. The North room was built in 1932 to contain 3 cascade filter vessels and was extended to the South between 1938 and 1950 to accommodate 2 additional deep end filter vessels.

Both rooms were built in solid masonry brick wall supported on traditional concrete strip foundations. The North room has a precast concrete roof while the South room has a steel frame roof.

The mechanical equipment is monitored regularly by the current end users - according to the latest assessment, the 2 deep end vessels located in the South room must be replaced in 2023 at the latest while the 3 cascade filters in the North room may endure 10-20 years more.

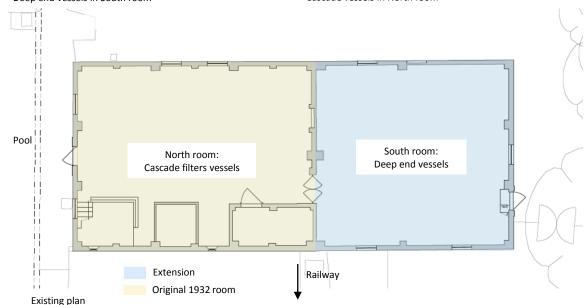
A detailed description of the building elevations is contained in chapter 6.0 of the attached Historic Building Record.







Cascade vessels in North room





Structural problems

Some underpinning works were carried out about 10 years ago as cracking and slab movements were reported. Both rooms are currently suffering from movements but the South room cracks have worsened in the last two years.

This structural movements are most likely due to clay shrinkage or heave, with foundations bearing on highly shrinkable clay. The cracking is now extending to the roof and the floor slab, putting the stability of the entire building at risk.

The next page shows an example of the movement monitoring carried out by the structural consultant Trenton; movements have been recorded in the period between September 2018 and February 2019. Therefore, the existing underpinning is not managing to retain the structure.

Other temporary measures are being undertaken to retain the existing structure (such as props to support the roof) or stop the water ingress through the roof.



Slab crack



Wall crack

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Structural monitoring

Digital Caliper Crack Monitoring Record

	Installation of S/S Discs & 1st Measurement		2nd Measurement			3rd Measurement		
Location Ref Point	Date	Reading	Date	Reading	Movement	Date	Reading	Movement
А	13/09/18	69.48	05/11/18	69.48	0.00	19/02/19	69.49	0.01
В	13/09/18	63.08	05/11/18	63.09	0.01	19/02/19	63.09	0.00
С	13/09/18	105.51	05/11/18	105.49	0.02	19/02/19	105.52	0.01
D	13/09/18	71.11	05/11/18	71.12	0.01	19/02/19	71.19	0.08
Е	13/09/18	69.79	05/11/18	69.89	0.10	19/02/19	69.85	0.06
F	13/09/18	63.50	05/11/18	63.40	0.10	19/02/19	64.14	0.64
G	13/09/18	67.59	05/11/18	67.55	0.04	19/02/19	67.74	0.15
Н	13/09/18	63.44	05/11/18	63.44	0.00	19/02/19	63.69	0.25
J	13/09/18	60.35	05/11/18	60.35	0.00	19/02/19	60.70	0.35
K	13/09/18	54.09	05/11/18	54.09	0.00	19/02/19	54.14	0.05
L	13/09/18	91.22	05/11/18	91.22	0.00	19/02/19	91.52	0.30
M	13/09/18	54.13	05/11/18	54.13	0.00	19/02/19	54.13	0.00

Key	Increase in size
	Decrease in size

Analysis of the existing

The existing pump house has an utilitarian character with no particular architectural features to be highlighted. The windows are allocated irregularly and some of them are partially obscured by the big vessels, reducing the amount of daylight entering the 2 rooms.

At feasibility stage, an appraisal of the potential new locations to accommodate the pump house was carried out and no suitable sites were found without reducing the Lido public open area or trespassing the Tooting Bec Common land, in which case an - The building does not have particular authorisation from the Secretary of State is required.

Furthermore, changing the pump house location would require an expensive re-piping work that would underground disrupt the use of the Lido for several months; the existing location is also ideal for maintenance since it is easily accessible from the external parking area.

An extension of the existing building was not considered due to its critical structural conditions.

The attached Heritage Statement recognises a "very limited architectural merit of the existing Southern Building" and states that "the building is not aesthetically displeasing, but does not possess any notable architectural merit".

Considering that:

- Structural movements have been reported;
- A successful solution to stop these movements permanently would be too difficult to achieve:
- The roof has water leaking:
- architectural features to be preserved;
- The deep end vessels must be replaced within the next 4 years;

it has been considered safer and more effective to demolish and re-build the entire South Room.



Existing photos









Pump



South facade

East facade



Cracking between rooms



Typical wall cracking

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West facade

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4.0 Proposed layout

Proposed layout

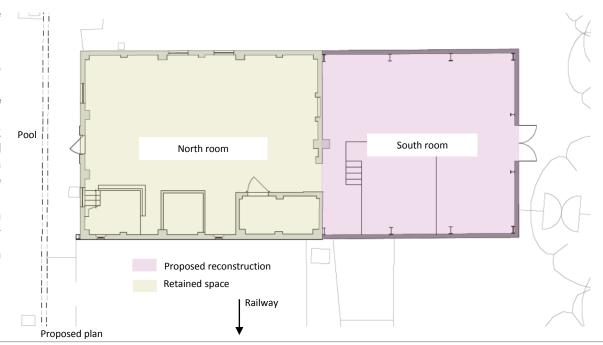
The proposal is to reconstruct the South Room with the same footprint and volume of the existing one. This way, there would be a minimal visual impact to the existing character of the area.

The design of the South elevation is symmetrical and complements the architectural language of the existing North elevation: a big window is vertically aligned with the main door located to the centre of the facade.

The new mechanical equipment would be installed adjacent to the external walls and would obscure the natural light in case windows were installed on the side elevations. Indeed, it is preferable to provide two blank walls to the East and West elevations and daylight would be allowed through roof sun pipes and the big window located above the main entrance door.

Furthermore, the external walls of the South Room will be reachable from the public 24/7 and could potentially be exposed to intrusion and vandalism.





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4.0 Proposed layout

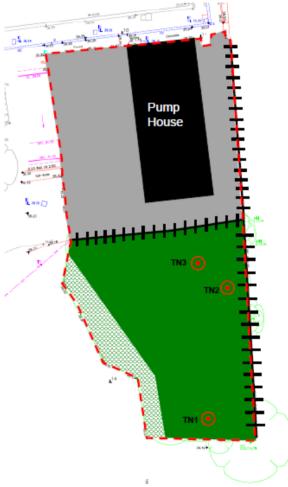
Proposed layout

The external walls would be finished with red bricks in the Flemish bond pattern to match the existing. Following some comparison made on site, we concluded that the existing bricks would be best matched with Berry made brick in Light Red from Swanage Imperial Light Stock supplied by EH Smith with the addition of a small percentage of restoration red to match in with some of the darker bricks.

The new hopper and downpipes will be in black uPVC to match the colour of the existing cast iron downpipes.

The development has a minimal impact on the natural environment: the attached Ecological Impact Assessment explains that "the site affected by development works was dominated by hardstanding and a building which were of negligible ecological importance".

No tree removal is necessary for the works and, as stated in the attached Arboricultural Impact Assessment, there are no tree works required to facilitate the development.



Habitat Map From Ecological impact assessment showing the hardstanding area in grey and the woodland in green



Proposed bricks in light red compared with existing bricks

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5.0 Conclusions

Improvements for Tooting Bec Lido

Overall, the proposed scheme:

- original character of the area or the bulk of the existing building;
- Guarantees suitable space accommodate new mechanical equipment for a long term use of the Lido;
- Increases the security of the pump house from vandalism and intrusions by providing blank walls;
- Improves the safety of the employees by demolishing the weak structures and providing stronger foundations;
- Provides a design that echoes the architectural language of the North room.

Does not generate any losses to the For the points raised, we reckon that this development makes a positive contribution to modifications to its features by matching a coherent public realm, streetscape and wider cityscape as requested in the London Plan Policy 7.6. The design meets the requirements of the Wandsworth Local Plan -Core Strategy adopted March 2016.

Thank you



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