

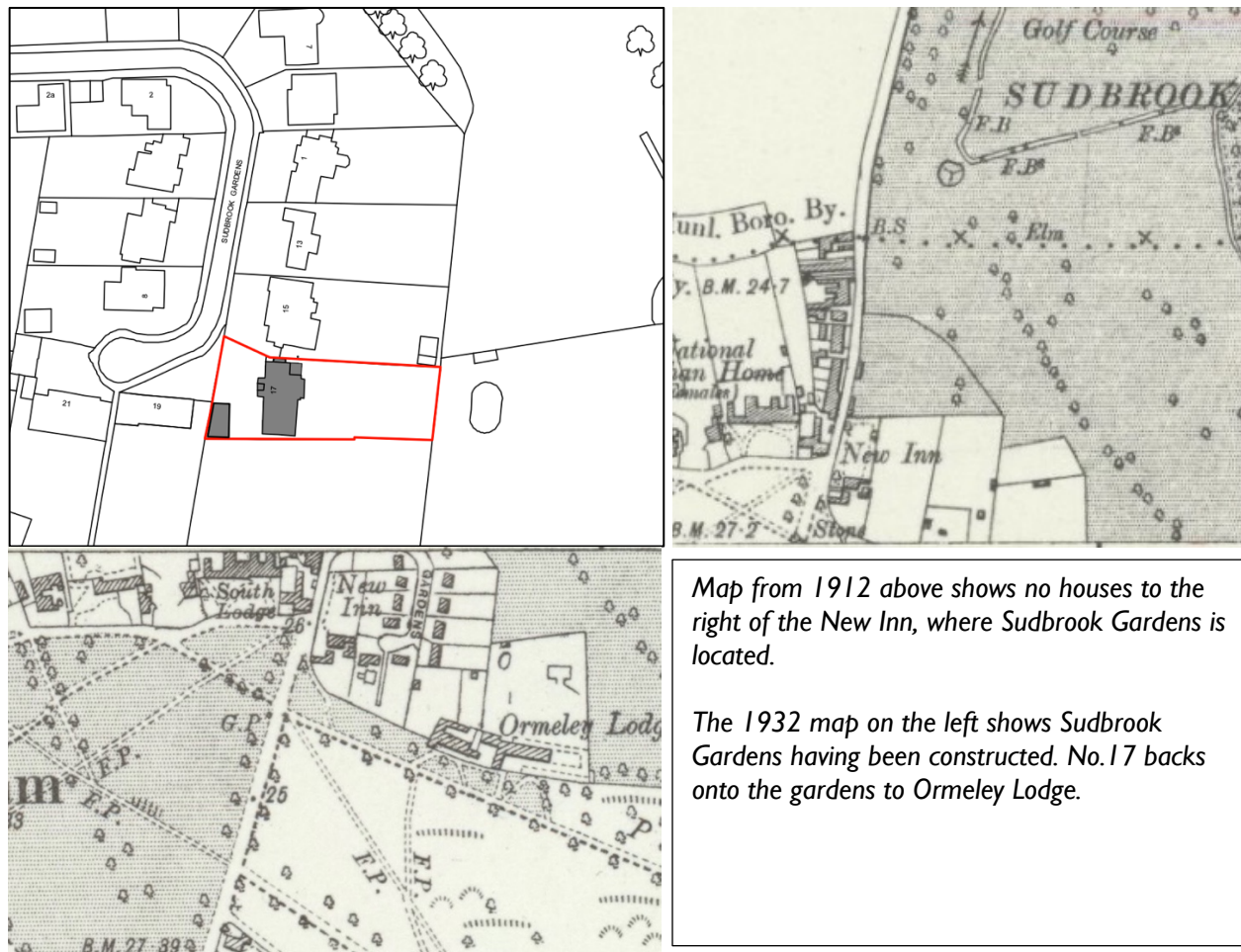
DESIGN REPORT - GREENHOUSE
 17 Sudbrook Gardens, Richmond, TW10 7DD

1. Introduction

This design statement is part of the planning application for the proposed greenhouse at the above property, located in the London Borough of Richmond upon Thames. The statement outlines the rationale behind the design of the proposed alterations, focusing on its impact on the local context, architectural approach, and how it complies with relevant planning policies. The proposal aims to enhance the functionality and aesthetics of the property while maintaining harmony with the surrounding built environment.

2. Site Context

The property is a two-storey, semi-detached house situated within a residential area in Richmond upon Thames. The site is not in a Conservation Area and Sudbrook Gardens isn't a through road. The surrounding properties consist predominantly of Victorian and 1930's houses, many of which have undergone modern extensions. The house is set in a large garden. To the rear of the property are the grounds to Ormeley Lodge, a grade 2* listed home set in generous grounds, and Richmond Golf Club.



Aerial view of Sudbrook Gardens from google maps 2021

The aerial photo above shows that there used to be an outbuilding and pool to the gardens of no.17. The outbuilding was demolished recently but the ground slab remains. The pool has been infilled with an area of paving over it.



View to the boundary no. 15 with outbuilding beyond.

Rear wall to Ormeley Lodge joining RH boundary wall



View to the boundary wall from the first floor window to no. 17 Sudbrook Gardens, with tall yew hedge beyond.

3. Design Proposal

The greenhouse will be located in front of a large 3.4m high wall. The greenhouse is set 1m away from this wall the eaves are at 2018mm above a 150mm patio. Although the ridge is 4444mm, this is 2.5m from the boundary to no. 15, where there is an outbuilding in the garden, and 5m from the grounds to the right. The photo above also shows the tall hedge to Ormeley Lodge (height unknown but appears to be approx. 4m high).

The design of the greenhouse is in keeping with the age of the house, with ornate detailing to the crest of the ridge and in the column design.

Precedent images

The images below show similar designs that have been built by the installer, Hartley Botanics.



Example image of the porch to the front elevation.



Example of the configuration of pergola next to the glazed canopy with open sides, connected to the greenhouse with brick plinth.



Example of the pergola structure and columns. Example of the canopy structure before glass roof installed. The canopy has glass to the roof and gable ends but is open around the columns.

4. Structural impact

The greenhouse has been set 1m from the old brick boundary wall which is part of Ormeley Lodge grounds. The wall has deep foundations (see trial pit photos in structural report) and the greenhouse's foundations will be designed so as not to impact the stability of the boundary wall. Please see the structural report at the end of this report.

The wall is in need of some repair in a few locations, with some crumbling of the bricks in areas. The owners of Ormeley Lodge have been made aware of this and have made contact with their structural engineer to make an assessment of the wall.

6. Planning Policy Compliance

The proposal has been designed in accordance with the relevant local and national planning policies, including:

- **London Borough of Richmond upon Thames Local Plan:** The design complies with policies relating to extensions and alterations, specifically those addressing the impact on residential amenity, character and appearance.
- **National Planning Policy Framework (NPPF):** The extension supports the framework's goals of high-quality design and sustainability, ensuring that the development adds to the overall quality of the area.
- **Local Plan Supplementary Planning Document House Extensions and External Alterations 2015.**

7.0 Summary

The greenhouse is for ancillary use of the main house, incidental to the enjoyment of the dwelling house. Although generous in size it is not out of scale considering the size of the neighbouring gardens. The land to the rear and right is owned by Ormeley Lodge with substantial formal gardens, outbuildings, tennis court and pool. To the left at no.15 an existing outbuilding has been built up to the boundary.



Precedent image from Hartley Botanic

STRUCTURAL STATEMENT

S.01 Brief

This structural statement is provided by Paul Draper, IEng, IMStructE of Pdesign Consulting Limited who is an Incorporated Engineer with the Engineering Council (UK) and an Incorporated Member of The Institute of Structural Engineers, to support the planning application for a new greenhouse which is to be constructed adjacent to the rear boundary wall of 17 Sudbrook Gardens which is a listed structure.

S.02 Existing Structure

The existing boundary wall is of solid masonry construction which is approximately 660mm thk with buttressing piers. The wall is leaning inwards towards the gardens of 17 Sudbrook Gardens and is generally in a poor condition with areas of missing, loose and crumbling brickwork and mortar.

We understand that a full structural inspection and condition survey of the wall is to be undertaken by the current owners, with a view to undertaking remedial repairs in the near future.

A localised trial pit investigation was undertaken to determine the depth of the founding level of the wall. Please refer to Photographs 1 & 2 below.



Photograph 1 – Founding Depth (1m)

Photograph 2 – Trial Pit and Existing Wall below Ground.

It was found that the wall extended to at least 1 metre below existing ground level, (as measured from No. 17 side). The base of the wall and expected foundation corbelling was not discovered.

It was noted that the nearest buttressing pier did not extend below ground level to the same depth as the wall and only extended into the ground by 2-3 courses of brickwork.

S.03 Structural Solution

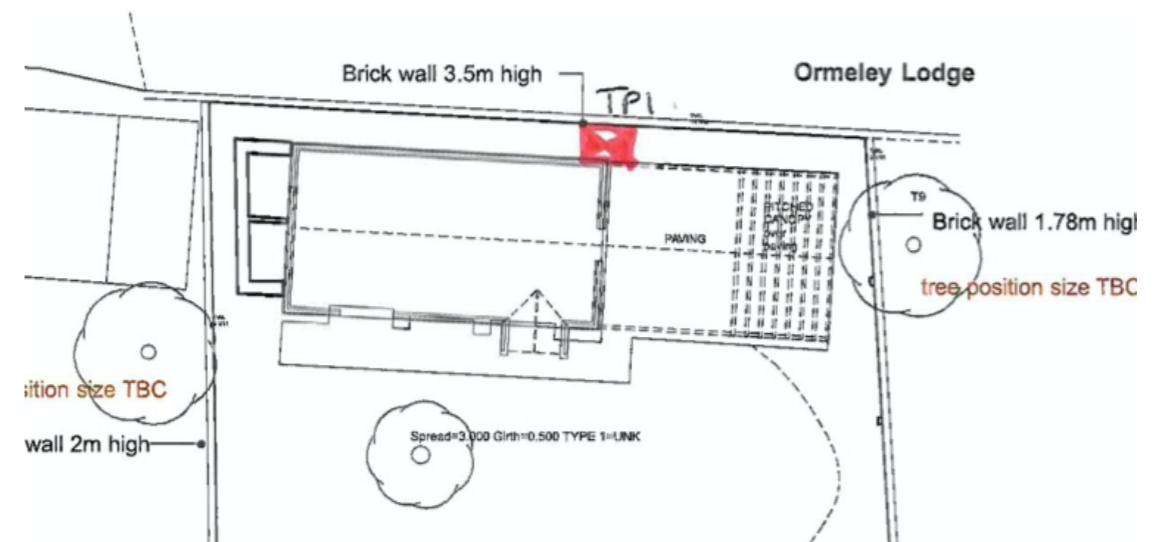
It is proposed to found the new greenhouse on a new reinforced raft foundation with localised pad foundations for the adjoining pergola or shallow strip foundations, 600mm wide x 750mm deep for the entire structure. The new foundation solution will be positioned a distance of 1 metre measured horizontally from the face of the wall.

Either method means that any new excavations are kept to a minimum depth, that will not project below the level of the existing wall foundation, so will not undermine or impact the existing wall or founding sub-strata.

S.04 Construction Method.

We would suggest that any excavations are undertaken by hand to minimise any damage to the wall from plant movement around the site, vibration during excavation works, etc. If a strip foundation solution is adopted then this can be undertaken in a 'hit & miss' sequence to avoid large open excavations.

We would also suggest that the wall is propped locally during the course of the works as a precautionary measure and protective fencing out in place to avoid any damage from the general site works.



Location of Trial pit.