

Access Statement, Planning Statement and Heritage Statement

Repair to the roof of a Grade II Listed Building within a Grade I Parkland setting

Queen Anne's Lodge
Off Rockley Lane
Worsbrough
Barnsley
S75 3DS

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Project No 2013/05

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Table of Contents

Location	3
The Existing Building and Background.....	3
Description of Proposals	4
Assessment of significance	4
Assessment of Impact on Significance	5
Justification of Works	6
Discussions with Planning Officers	6
Photographic Study	7

Location

The Site is Queen Anne's Lodge, off Rockley Lane, Stainborough. It is situated on the edge of Stainborough Park, a Grade I Listed Landscape and it is within the Wentworth Castle and Stainborough Castle Conservation Area. It is adjacent to Queen Anne's Monument (also known as Queen Anne's Obelisk). The Wentworth Castle and Parkland is open to the public until 5pm on summer evenings.

The Site is situated in D8-D14 Green Belt land and is designated as NE8 Area of High Landscape Value.

The Royal Mail refers to the site address as Queen Anne Lodge, but the English Heritage Listing refers to it as Queen Anne's Lodge. For the purpose of this application, the Listing name will be used.

The Existing Building and Background

Planning Permission and Listed building consent has previously been granted to carry out alterations and repairs to the existing building, demolition of a section of the house and the construction of an extension.

During the works to implement the permissions, it has been found that the roof and roof structure of the existing building are in a very poor state of repair, are suffering from infestations, and many of the structural members are significantly under sized. Significant cracking is found in all external walls, which has been caused by the spreading and failing roof structure. The building has been inspected by the Structural Engineer who has expressed serious concern and has confirmed that the building is at serious risk of collapse if repair and strengthening of the roof structure is not carried out.

For the purpose of the work to the roof, the building can be divided into three historically distinctive parts:

- We believe that the northern, rear part is the original gate house and contains significant historical oak structures (a king post truss, purlins and props) which vary in condition from poor to good, which should be retained. There is also a more recent softwood truss, softwood purlins and rafters to a discreet part which should also be retained. There are also modern rafters and ceiling joists that have no historical significance.
- The north east corner has been extended in the past; it appears to be an historical extension. This can be identified in the angled cuts of the oak purlin ends and the materials and jointing in the walls. The roof construction of this part of the building is not historical and uses modern timber sections, although it is of a very poor design and the elements are undersized.
- The southern, front part of the building also appears to be an historical extension. There are no historical elements within this roof. The roof is of modern construction and uses modern timber sections, and although it is of a very poor design and the elements are undersized and it is in need of strengthening and repair. The walls supporting this wall are experiencing significant cracking and are in danger of catastrophic failure, due to the roof spreading and pushing the walls outward. We have been advised by the Listed Building Officer that there is no interest in this roof and there is no need for this part to be included in the Listed Building Consent application.

Description of Proposals

For detailed information regarding the proposals refer to the Architects drawings and the Structural Engineer's drawings and calculations.

The proposals generally comprise:

- the insertion of steel beams to either side of the existing trusses
- spanning between these beams with a timber beam,
- construct a structural stud wall off the timber beam to support the existing ridge purlins.
- New 50 x 150mm rafters will be used to construct a new cut roof, leaving the historic trusses, ridge purlins, purlins and rafters in place.

There is no need for new purlins with this method. There will be an increase in the height of the building of approximately 100mm which is due to the increased depth of the rafters. The original rafters are inadequate (50mm deep), and the structural engineer has confirmed that they should be 150mm to adequately support the stone roof.

Any modern timbers (including rafters and ceiling joists) that are not correctly sized or specified will be removed and replaced with correctly sized timbers.

Assessment of significance

Name Under the Listing – Queen Anne's Lodge and attached gates to North West corner

Number Under the Listing - 1315081

Grade of Building – II

Date first listed - 4 December 1986

Date of Building and Significant Dates – Circa 1734 (Contemporary to Queen Anne's Obelisk)

Name of Architect or Builder – Unknown

Description of features of the building (Extract Taken from the EH Listing)

Probably c1734 (date of Queen Anne's Obelisk (q.v.)), altered and extended in keeping. Rubble sandstone, stone slate roof. Twin-roofed, single-storey, rectangular range with C18 gates attached to north-west corner and lower addition set at angle against south-west corner. Side of lodge facing former drive to obelisk has small 16-pane sash flanked by paired pointed-arched windows having casements with glazing bars. Hipped roof with ridge stack. Each return has a blocked doorway and ogee-headed window with casement. Matching parallel range of later date: ogee-headed window in one end, side elevation forms entrance front with part-glazed door flanked by sashes with glazing bars.

Gates have tooled, monolithic stone piers with shaped heads; wrought-iron gates with wavepattern bars and scrolled side panels, finialled top rail.

Assessment of Impact on Significance

When looking at how remove the risk to the building due to the structural issues with the roof structure, we assessed the impact with regard to the following:

- the historic roof structure,
- the external appearance of the building,
- the appearance and feel of the spaces within the building,
- the general building fabric.

Will the proposal harm, enhance or preserve the significance of the heritage asset?

Overall it should be noted that this work is preserving the building. It is essential that repair and strengthening work is carried out to the roof because if this work is not carried out, there is significant evidence (confirmed by the Structural Engineer) that the roof structure will fail in the next few years and the building structure will experience catastrophic failures, resulting in eventual collapse.

The proposals will enhance the internal spaces. All rooms are experiencing issues of cracking plaster and movement in walls. By carrying out the roof strengthening and repair work the work the walls will be repaired and there will be no future cracking of the walls and plaster.

By repairing the roof as described below, there is some harm to the building fabric due to the intrusive nature of the use and insertion of the steel beams.

There is an impact on the external appearance of the buildings due to the need to increase the timber sizes to be able to support the stone roof and prevent future failure of the roof structure and subsequent cracking and failure of the walls. The design has minimised this impact and detailing of the eaves and careful positioning of the gutters will further minimise the impact on the appearance of the building.

Assessment of the impact the proposal will have upon the heritage asset

On balance, it is proposed that this approach has an overall positive impact on the heritage asset:

- the historical structure will be preserved, protected and not altered,
- there will enhancement to the internal spaces and
- The external appearance of the building is changed, but to a significantly lesser degree than the alternative options (see below).
- The building fabric is impacted, but this is to allow the above positives.

Justification of Works

Demonstrate why the works are required

It has been confirmed by the Structural Engineer that the failure of the roof structure (due to poor design, infestation of historical timbers and undersized modern timbers) is the cause of the cracking in the walls. Therefore, it is essential that the work to the roof is carried out to protect the building from catastrophic structural failure.

Are there alternatives that would cause less or no harm?

A number of options were considered before the proposals were finalised. The most viable of these involved inserting an additional truss to the east side, and raising the height of the roof in order to fit new purlins and rafters above the existing historic roof structure. With this option, the historic roof structure would be retained, but there would have been a significant impact on the external appearance of the building by raising the roof by around 300mm. This option was discounted in favour of the submitted proposals because we consider that minimising the alteration to the external appearance of the building is more important than avoiding the insertion of steelwork (which will be hidden when the work is completed).

We have also considered numerous other alternatives to the proposals which have also been discounted due to them having greater impact on the heritage asset.

Discussions with Planning Officers

Conservation Officer Tony Wiles has been consulted on this matter. He has advised that the historical structure should be retained wherever possible, and sympathetic, discrete repairs would be acceptable.

The use of steel beams was discussed in principle and, considering the advantages and disadvantages of this option, it was agreed that this was the best option and retains the more important aspects of the heritage asset (appearance, structure, feel/space). At the time, it was thought that the roof height would not need to be raised, but subsequent information found that it would have to be raised by approx. 100mm. This has not been discussed with the Mr Wiles, but the reasons for the slight increase in the roof height have been made clear in this report.

Photographic Study



Photo 1

The historic oak truss (showing damage to the kingpost brace due to infestation) and the historic oak purlin. Note the later timber purlin below the oak purlin, installed to support the historic extension hip roof and the softwood rafters.

Modern ceiling joists to be removed and replaced.



Photo 2

Oak lintel beneath historic oak truss. This lintel is sitting on a rubble filled stone wall. The oak truss is sitting on the rubble stone behind the truss. It is proposed that the oak lintel is carefully removed, a steel lintel is inserted behind it to support the existing truss and the new steel beams, and then the oak lintels is re fitted in the same location as before.



Photo 3

View towards the rear corner of the historic extension, showing the beam and the change in wall material (stone to brick) that indicates the extent of the extension. The lowest beam is the same as that shown in Photo 4.

The visible beam is to be removed and the roof structure is to be supported from below by props sitting on the new steel beam.



Photo 4

View to the side of the historic extension showing the existing beam arrangement used to prop the free end of the later softwood purlin (seen below the oak purlin in Photo 1). Refer to Architects drawings for additional information. The design is complicated due to the joiners need to prop the hip apex.

It is proposed that all the softwood beams in this location are removed, to be replaced with a single steel beam directly under the apex of the hip which will simplify the design and provide a location from which the purlins can all be propped.



Photo 5

Historic oak prop, sitting on stone wall, supporting the historic purlin.

It is proposed that a new masonry wall is constructed behind the prop, which will support the existing purlins.

Modern rafters and ceiling joists to be removed and replaced with correctly sized members.



Photo 6

Historic oak prop, sitting on stone wall, to support the historic purlin.

It is proposed that a new masonry wall is constructed behind the prop, which will support the existing purlins.

Modern rafters and ceiling joists to be removed and replaced with correctly sized members.



Photo 7

Bottom chord of softwood truss, with oak purlins and hip rafter creating the hip of the roof.

Historic truss, purlins and rafters to be retained, with new 150 x 50 rafters fixed along side them.

Modern rafters and ceiling joists to be removed and replaced with correctly sized members.



Photo 8

Showing oak purlins connecting to the hip rafter at different heights.

Historic purlins and rafters to be retained with new 150 x 50 rafters fixed alongside them.

Modern rafters and ceiling joists to be removed and replaced with correctly sized members.



Photo 9

Softwood truss sitting on modern steel catnic lintel.

The truss is to be retained and new 150 x 50 rafters will be fitted to the side of the existing rafters. The lintels are to be replaced with suitable sized steel lintels.

Modern rafters and ceiling joists to be removed and replaced with correctly sized members.

Photo 10



Softwood truss sitting on window with oak lintel.

This lintel is sitting on a rubble filled stone wall. The oak truss is sitting on the rubble stone behind the truss. It is proposed that the oak lintel is carefully removed, a steel lintel is inserted behind it to support the existing truss and the new steel beams, and then the oak lintels is re fitted in the same location as before.

Modern rafters and ceiling joists to be removed and replaced with correctly sized members.



Photo 11

Example of timber lintel above window. The same detail occurs above the windows on the front elevation, onto which the roof sits.

It is proposed that these softwood lintels are replaced with concrete lintels.



Photo 12

Poor quality photo (enhanced) showing timber lintel above front elevation window, similar to that shown in Photo 11.

It is proposed that these softwood lintels are replaced with concrete lintels.