DESIGN ACCESS & HERITAGE STATEMENT

The Whitworth Gallery: The University of Manchester, Oxford Road, Manchester, M15 6ER

Rebuilding of retaining wall at The Whitworth Gallery

1.0 Introduction

1.1 This statement forms part of an application for planning and listed building consent for works to address a section of external retaining wall at The Whitworth Gallery which has suffered structural movement and is showing signs of failure. Plan 1 and Photos 1 and 2 in Appendix 1 show the area of damaged wall.

1.2 The Whitworth Gallery is a gallery housing an extensive and eclectic collection of art and design of international significance. Under the Planning (Listed Buildings and Conservation Areas) Act 1990, The Whitworth Gallery is Grade II listed. The Whitworth Gallery is shown on the location plan.

1.2 This statement is to be read in conjunction with Drawings 031AA-8529-A100, 031AA -8529-A102, 031AA-8529-A201 and 031AA-8529-A202, which accompany the application. The drawings show the detail and location of the proposed access works.

2.1 Wall detail and background to proposed works

2.11 The retaining wall is constructed from solid masonry with terracotta coping. It has seven piers with terracotta cladding extending above the upper ground level. These piers form a balustrade and are linked by sections of painted steel handrail. The wall is situated on the south elevation and is in four segments. Approximately 2m of ground is retained by the wall.

2.12 The University instructed Curtins (Structural Engineers) to assess the wall's condition due to the presence of two areas of substantial (10mm width) diagonal cracking in the area highlighted in red on Plan 1, Appendix 1.

2.13 Curtins advised that the wall is in poor condition and has suffered structural movement caused by pressure from the earth bank, as well as from hydrostatic pressure. They recommended a full re-build of the damaged section of wall, approximately 16m in length. Please see Extract 1 in Appendix 1.

2.2 Proposed works

2.21 Two methodologies have been adopted to address the damaged wall section due to the close proximity of a London plane tree to the west section of the wall. Photo 3, Appendix 1. The University took advice from Bartlett (Tree Consultants) who advised that the wall section closest to the tree could not be rebuilt without having significant implications to the health of the tree.

2.22 Curtins advised that as an alternative to rebuilding the wall, brick piers could be constructed to provide support and stability. The feasibility of constructing brick piers along the length of the damaged wall section was investigated, but this was rejected due to the impact on the natural light available to the basement office space of the Gallery, and also due to access and maintenance implications to the lightwell area.

2.23 Therefore new brickwork piers will be constructed to support the west section of wall by the tree, while the remaining wall section will be carefully dismantled by hand, block by block and brick by brick and rebuilt using the reclaimed materials. Plan 2 in Appendix 1 shows the area of each methodology.

2.3 Works to wall – new brickwork piers

2.31 The existing wall will remain in situ, aside from the parapet and coping which will be rebuilt due to movement suffered to the area. Three new brickwork piers, dimensions 660x440mm are to be constructed and tied to the wall with stainless steel fixings.

2.32 The bricks for the piers will be reclaimed and a lime-based mortar will be used, the colour and joint profile will match the mortar of the existing wall as far as possible. The top of the piers will be constructed in plinth bricks to match the profile of the existing wall.

2.4 Works to wall – demolition and rebuilding

2.41 The existing wall will be carefully demolished, making every attempt to retain as much of the original construction materials as possible. Where salvageable, materials will be set aside for re-use.

2.42 Curtins have produced a design for the wall to withstand the pressure from the earth bank. The new wall will be constructed from mass concrete, with concrete footings at the location of the piers. Section 1, Appendix 1 shows the detail. Weepholes will be incorporated into the wall design, to ensure that hydrostatic pressure does not build up.

2.43 The concrete will be faced in brick and the wall's profile, parapet and coping detail will match the existing arrangements, with the existing construction materials re-used where possible and reclaimed materials used to make up any shortfall. A lime-based mortar will be used, the colour and joint profile will match the mortar of the existing wall as far as possible.

2.5 Mitigating the impact of proposed works on the local environment

2.51 The University has been working closely with Bartlett in order to minimise the impact of the proposed works on the trees in the vicinity. Bartlett have produced an Arboricultural Implications Assessment and Draft Tree Protection Plan Report which is included with this submission. Plan 3 in Appendix 1 shows the location of the trees in relation to the works area.

2.52 In their report Bartlett recommended preliminary root investigation works be conducted along the outer line of the proposed excavation pit to a depth of 1m. These works were carried out and a site meeting was held with on 17 August 2023 with Noel Nugent, Arboricultural officer team leader at Manchester City Council, to inspect the excavation pit, discuss the proposed works and how to protect the health of the trees during the works.

2.53 Based on this investigation work Bartlett have produced a report with photos, which is included within the submission.

2.54 Taking into account Bartlett's reports and the points discussed in the site meeting with Noel, the following measures will be implemented to retain the best tree health possible during and after the works:

- Utilise vacuum excavation if feasible to minimise root severance.
- Where root severance is not deemed appropriate then roots to be retained, wrapped in damp hessian and worked around.
- Robust tree protective barriers to be erected prior to the commencement of works on site and to remain in-situ for the duration of the project.
- Bartlett to monitor the tree health during and after the works and to treat soil in the area with potassium phosphate or similar.

3.0 Identifying the Heritage Assets.

3.1 WHITWORTH GALLERY, OXFORD ROAD

List entry number: 1246569

MANCHESTER

SJ89NW OXFORD ROAD, Chorlton-On-Medlock 698-1/4/615 (West side) 03/10/74 Whitworth Gallery

GV II

Art gallery. c.1895-1900, by J.W.Beaumont; altered. Red brick with bands and dressings of matching terracotta, green slate roofs. Roughly rectangular plan with 2 towers and a large porch projecting to the front plus short wings to left and rear. Free Jacobean style. Two storeys over basements, 1:1:9:1:2 windows; with semi-octagonal pilasters to the corners finished as short Baroque turrets with colonnades, plinth, 1st-floor sill-band, stylised corbel tables, moulded cornice, and parapet. The 9-bay main range has a projected ground floor with cornice and balustraded parapet which sweep out over a large semi-circular porch with a screen of paired stone Ionic columns and stone frieze, mounted on 4 semicircular steps; round-headed windows to the curved wall in this porch, small 3-light windows to the straight sides of the projection; cross-windows at 1st floor except the centre which has a slightly bowed 6-light transomed window with a balustrade in the parapet (flanked by raised gold lettering "WHITWORTH" "GALLERIES"). The towers flanking the main range have tiered canted oriel windows and low top stages with corner pinnacles and pyramidal roofs. The end bay to the left and the 2 bays to the right have cross-windows to both floors, the lower larger and set in segmental-headed recesses. All windows have small-paned glazing. Small white lantern on roof ridge, with pedimented faces.

4.0 Heritage Impact and Assessment against National Planning Policy Framework

4.1 **195. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.**

The brick used in the construction of the three piers is to be reclaimed to match the existing brickwork and the top of the piers will be constructed in plinth bricks to match the profile of the existing wall. The mortar type, colour and profile will match the existing as far as possible. In this way the piers will be constructed in a manner which is sympathetic to the construction of the existing wall.

For the wall section that is to be rebuilt, retaining and reusing as much of the existing construction materials as possible, and using reclaimed materials where required, will allow the rebuilt wall to match the existing wall as closely as possible. The new wall's profile, parapet and coping detail will match the existing arrangements, and the mortar type, colour and profile will match the existing as far as possible. The metal handrail will be re-used and redecorated, to give it protection from the elements.

The development of the scope of works has taken into full consideration the trees in the vicinity, and measures will be implemented to protect their health and to minimise the impact of the works as far as possible.

The proposed work will have minimal impact on the heritage assets.

4.2 **202. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.**

The existing wall is unsafe and action must be taken to address this. The proposed works provide buttress support to the west side of the wall and a new mass concrete wall with footings to the remainder, which will give a safe structure.

Matching the brickwork of the new piers to the existing wall and facing the new concrete wall in bricks and terracotta in re-used and reclaimed materials will give a design which is in keeping with the heritage of the asset, while protecting the trees in the vicinity as far as possible.

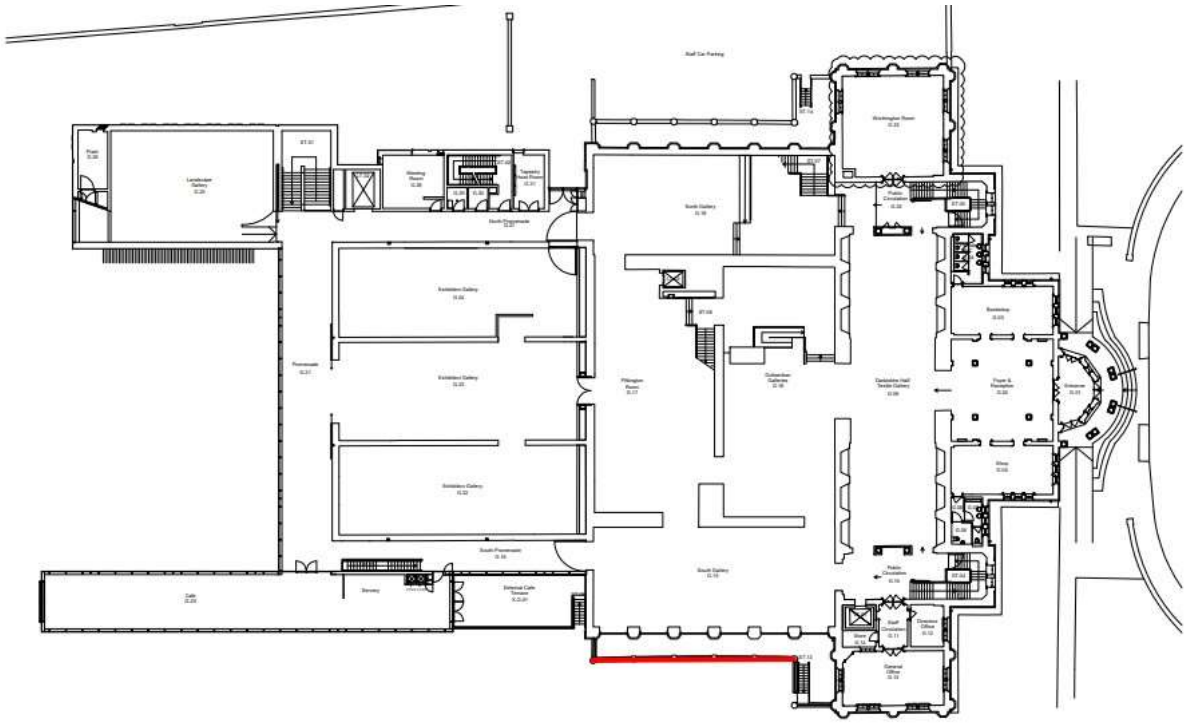
5.0 Design and Access Statement.

5.1 The proposed works are confined to the retaining wall and there are no proposals to change the access to, or circulation within, the building.

5.2 Currently the lightwell is out of bounds due to the risk of the wall collapsing. Once the wall is rebuilt maintenance activities such as drain and leaf clearance can take place again.

Jo Wavish
Projects Team
University of Manchester
01.11.23

Appendix 1



Plan 1. Ground floor plan of The Whitworth. Red line shows area of damaged retaining wall.



Photo 1. Section of damaged wall viewed from the park side



Photo 2. Section of damaged wall viewed from the Gallery side

5.0 Recommendations

The following recommendations should be considered to better understand the nature of the recorded observations and to provide sufficient detail to generate a robust budget to inform the cost plan.

5.1 Remediation

Our recommendation is that a full re-buildof the second segment of the wall is undertaken. The current wall build-up should be investigated prior to the works to see if the retaining wall build-up is sufficient to resist the current loading and if not, then the wall will need to be re-designed before it is re-built.

As part of the works, it is prudent to consider a complete removal of the existing steel handrail. This must receive a surface cleaning and paint protection application for an appropriate external environment against corrosion. We also recommend that damaged terracotta pieces are replaced and the new post fixing details of the handrail to the terracotta to be reconstructed.

KEY PLAN OF OBSERVATIONS

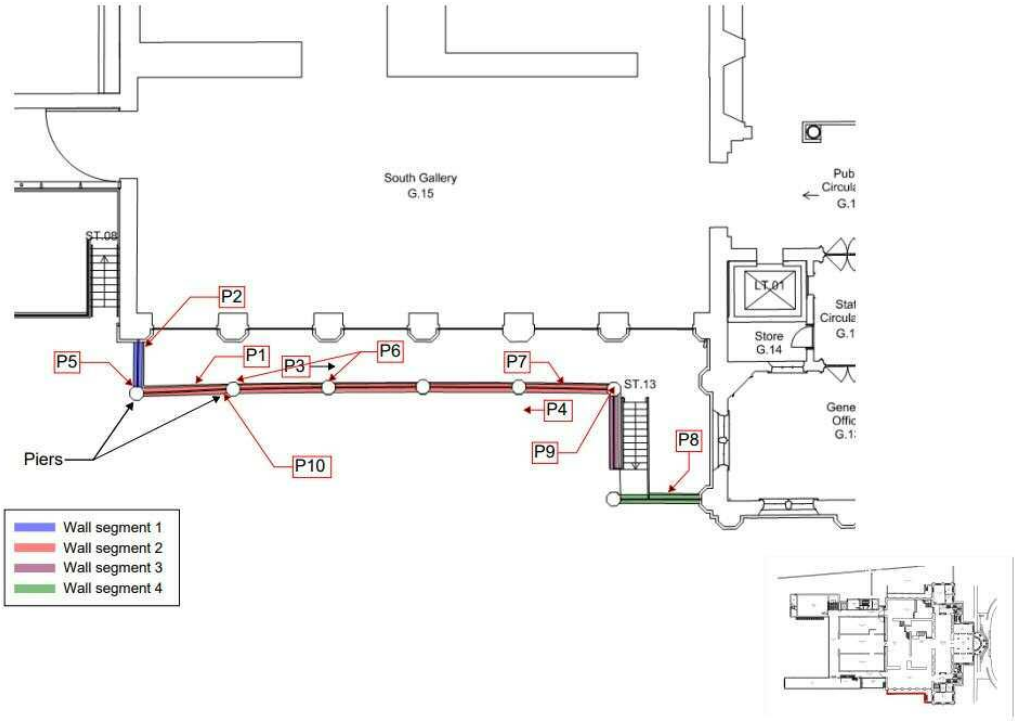
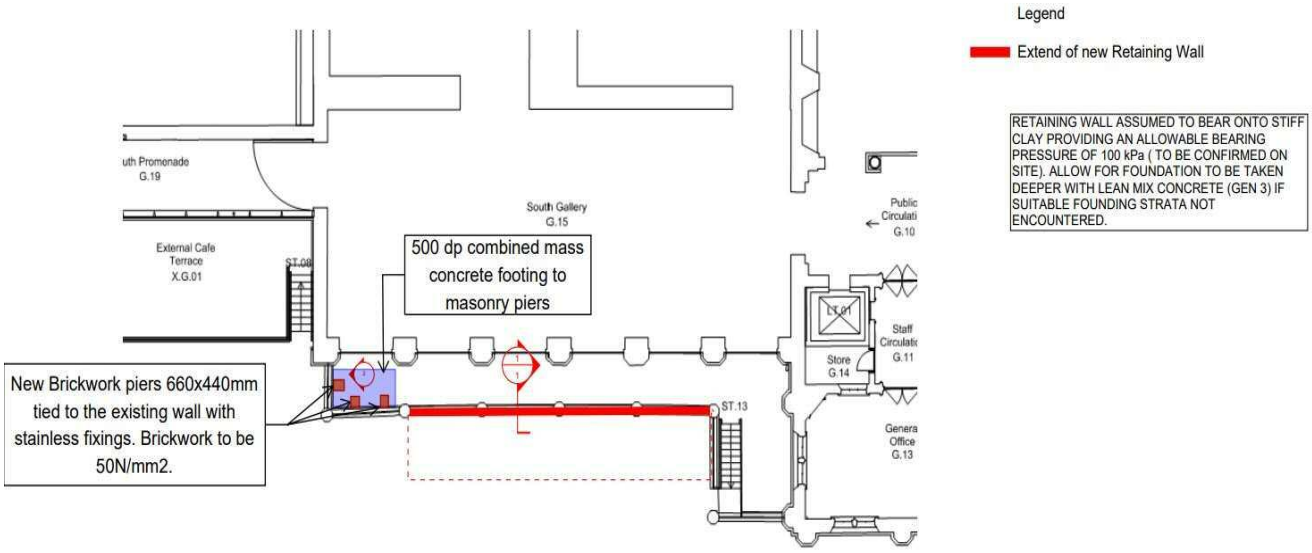


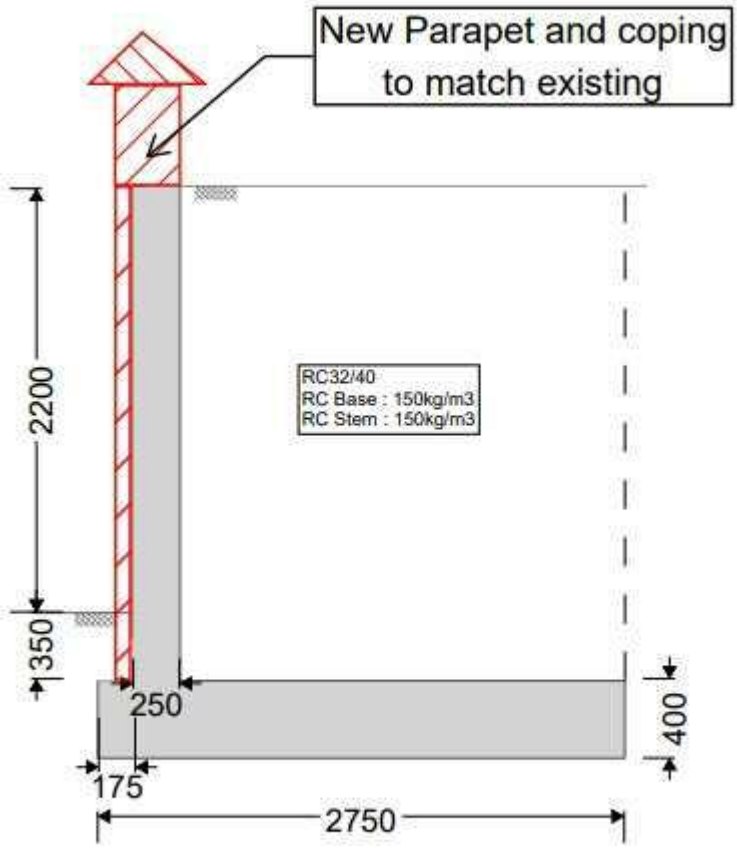
Image 1. Extract from Curtins report



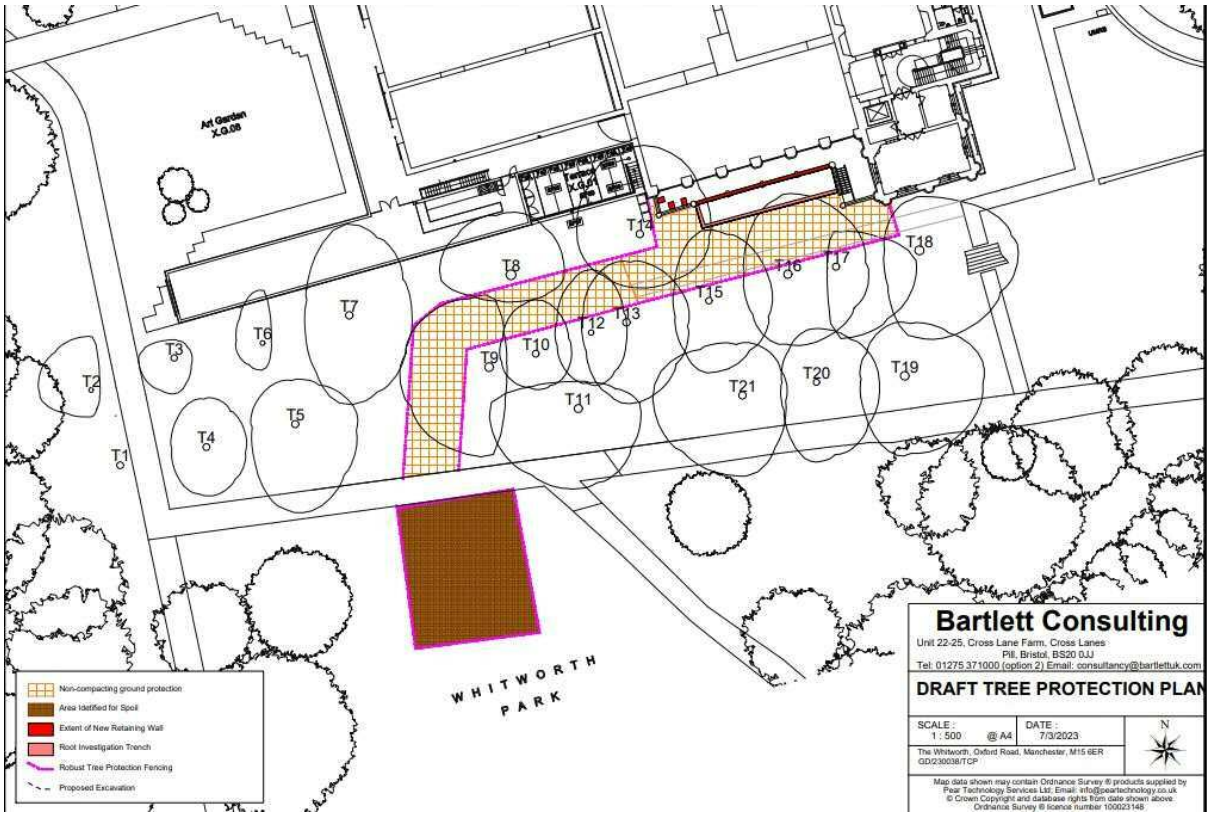
Photo 3. Showing London plane tree in close proximity to west section of damaged wall



Plan 2. Plan showing area of retaining wall where brick piers are to be installed. Red line denotes area to be rebuilt



Section 1. Showing simplified schematic detail of wall to be rebuild with concrete footing



Plan 3. Plan from Bartlett Arboricultural Implications Assessment and Draft Tree Protection Plan Report showing the location of the trees in relation to the works area.