

## Heritage Impact Assessment

### Repair of unstable ceiling within Queen Anne Suite, Room 3 at The Northern College, Wentworth Castle, Barnsley

#### 1.0 Introduction

Plaster within Queen Anne 3 has been a cause for concern owing to surface cracking. This was investigated by Hirst Conservation in August 2024 (see attached report abstract of p.28-34 in appendix). They reported that 'the ceiling was found to be unstable and requires intensive stabilisation methods employed as soon as possible'. As a result the room has been placed out of use owing to safety concerns, whilst the southern portion of the Long Gallery has also been placed out of use to prevent vibration or flexing of the floor.

It is proposed to repair the ceiling, providing temporary support, then fixing back to a pad system within the floor voids prior to reinstatement of the floor above.

The Heritage Impact Assessment has been produced for the client to meet the requirements of paragraph 207 of the National Planning Policy Framework (NPPF) and inform them, their agents and the planning authority of the historical significance of the site, together with the impact of proposals on it's heritage value and significance.

This statement has been prepared by Richard Storah of Storah Architecture.

Wentworth Castle is listed, grade I.

#### 2.0 History & Significance

##### 2.1 Description

Wentworth Castle is the former seat of the Earls of Strafford. It is sited in a landscaped parkland at Stainborough, near Barnsley

##### 2.1.1 Cutler House and Stainborough

In 1602, Thomas Cutler purchased Stainborough Hall and its estates from Francis Everingham. His son, Gervase Cutler was a lawyer at the Inner Temple in London. He became associated with the future King Charles I and was granted a knighthood. His son, also Sir Gervase was born in 1641. He inherited Stainborough in 1664 and instigated the rebuilding of the house in 1670. This house is now described as Cutler House and is now enclosed on three sides by later additions.

##### 2.1.2 Purchase by Thomas Wentworth

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The house was purchased by Thomas Wentworth, Baron Raby (1672–1739) for £14,000. In 1708. The Strafford fortune had passed from William Wentworth to his wife's nephew, Thomas Watson and only the barony of Raby had gone to a blood-relation. It has been suggested that this motivated Wentworth's purchase of Stainborough Castle only 6 miles from Watson's home at Wentworth Woodhouse, and that his efforts to surpass the Watsons at Wentworth Woodhouse in splendour and taste motivated Thomas Wentworth whom Jonathan Swift called "proud as Hell".

Wentworth was sent by Queen Anne as ambassador to Prussia in 1705–11. On his return to Britain, the earldom was revived when he was created Viscount Wentworth and 1st Earl of Strafford (second creation) in the Peerage of Great Britain. He was then sent as a representative in the negotiations that led to the Treaty of Utrecht. The Treaty which ended the War of the Spanish Succession also gained Britain both Gibraltar and the 'Asiento' - the monopoly to supply enslaved people from African countries to the Spanish colonies in the Americas. Thomas then made profit from the trade via shares and links to the East India Company and the Royal African Company.

### **2.1.3 The First Campaign**

The first building campaign to upgrade the hall was initiated c. 1711. This campaign included the building of the Baroque wing to the designs of Johann von Bodt a military architect who had spent some years in England. James Gibbs a Scottish Architect designed parts of the interior. During this period the house was still called Stainborough in Jan Kip's engraved bird's-eye view of parterres and avenues, 1714, and in the first edition of Vitruvius Britannicus, 1715. The First Campaign, including the long gallery has been described as "a remarkable and almost unique example of Franco-Prussian architecture in Georgian England".

This period of building very much represents Thomas Wentworth in politics and belief. The Baroque style identifies both Tory and European diplomatic influence. Palladianism at the time being associated with the Whigs. The landscape also symbolises political allegiance, the maze-like garden was fashionable has been laid out to combine the crosses of St George and St Andrew, celebrating the union of Scotland and England in 1707. This union was a proud moment in Queen Anne's reign, and demonstrates his loyalty to her.

With the death of Queen Anne in 1714, the crown passed from the Stuart royal line to the Hanoverians. This promoted a change in the political landscape as the Tories were removed from power. A staunch Tory, Strafford remained in political obscurity for the remainder of his life, but required a grand house to reflect his fortunes and spent his retirement completing it and its landscape. This included the creation of Stainborough Castle, a folly ruin to preserve the name and history, when the house was renamed Wentworth Castle in 1731. He also continued to demonstrate his political views, a sitting room in the house was named "Queen Anne's Sitting Room", this remains as the Queen Anne Suite. A 1734 monument is also dedicated to Queen Anne, the last Stuart monarch. This is unique in an English garden, an almost treasonable statement which hints at what he thought of the regime change.

### **2.1.4 The Second Earl and the Second Campaign**

The first earl died in 1739 and was succeeded by his son, William Wentworth, 2nd Earl of Strafford (1722-1791). William is acknowledged as the designer of the second Campaign, a neo-Palladian range, built in 1759–64. Whilst he employed John Platt as master mason and Charles Ross to draft the final drawings and act as “superintendent”, it was generally understood, as Lord Verulam remarked in 1768, “Lord Strafford himself is his own architect and contriver in everything.”

The Second Campaign resulted in the Palladian wing, the style having now overtaken Baroque in fashionable British architecture.

During this period the gardens were substantially remodelled to more naturalistic forms in the style of the English Landscape Movement. Horace Walpole singled out Wentworth Castle as a paragon for the perfect integration of the site, the landscape, even the harmony of the stone “If a model is sought of the most perfect taste in architecture... the new front of Wentworth-castle...distributed so many beauties over that domain and called from wood, water, hills, prospects, and buildings, a compendium of picturesque nature, improved by the chastity of art.”

Unlike the first Earl, William’s architecture at the castle is not an expression of his political views. The exception may be the Argyll Column of 1744, dedicated to his late father in law, the 2nd Duke of Argyll, the column is topped with a statue of Minerva, the Roman goddess of wisdom and war. She faces south to Londo, the Duke had been punished for opposing the government's harsh anti-Jacobite policies in Scotland.

#### **2.1.4 Later Generations**

With the extinction of the earldom following the death of third earl in 1799, the estates were divided. Wentworth Castle was left in trust for Frederick Vernon of Hilton Hall, Staffordshire. He added Wentworth to his surname and took charge of the estate in 1816. Between 1820 and 1840, the windows of the Baroque Wing were lowered on either side of the entrance hall. Frederick Vernon Wentworth also amalgamated two ground floor rooms to make what is now the blue room.

Frederick Vernon Wentworth was succeeded by his son Thomas in 1885 who added the iron framed Conservatory and electric lighting by March of the following year. The Victorian Wing also dates from this decade and its construction allowed the Vernon-Wentworths to entertain the young Duke of Clarence and his entourage during the winters of 1887 and 1889. The estate was inherited by Thomas' eldest son, Captain Bruce Vernon-Wentworth, MP for Brighton, in 1902. He had no direct heirs and sold the house and its gardens to Barnsley Corporation in 1948

#### **2.1.5 Education**

Barnsley Corporation brought the hall into use as a teacher training college, the Wentworth Castle College of Education until 1978.

In 1978 Northern College was founded. Based at the Castle, the college is for the education and training of men and women who are without formal qualifications and are

seeking to return to learning. It also offers training for those who are active in community and voluntary groups as well as in trade unions.

### **2.1.6 The Gardens**

The great landscape that Walpole praised in 1780 was described in 1986 as "disturbed and ruinous". Wentworth Castle Heritage Trust was formed in 2002 as a charity and the gardens were opened to the public and underwent £20m worth of investment from 2002 to 2017. Despite this, the castle gardens were closed to the public in 2017 amidst a funding crisis. The gardens and parkland reopened to the public on 8 June 2019 following a partnership agreement. In September 2018 it was announced that the National Trust planned to enter into a new partnership with the National Trust, Northern College and Barnsley Metropolitan Borough Council.

## **2.2 Significance**

This section assesses the relative significance of the Building and its key significance values. Significance is a concept for measuring the cultural value of a place, using judgement to assess the place and its different aspects in a hierarchy. The concept was first developed in Australia, but is further described for a UK context in 'Conservation Principles' (English Heritage, 2008).

The established levels of significance are:

- Exceptional – important at national to international levels, reflected in statutory designations, such as Grade I listed buildings and scheduled ancient monuments.
- High – important at regional or sometimes a higher level, e.g. Grade II listed buildings
- Medium – important at a local level, and possibly at a regional level, for example for group value
- Low – of no more than local value
- Negative or intrusive features – features which in their present form detract from the value of the site.

### **2.2.1 The Significance of Wentworth Castle**

Wentworth Castle is a high status house in the north of England. The house is important for its high quality, high status, contrasting architectural styles and its links with the Earls of Strafford, in particular the first earl, Thomas Wentworth, who instigated the First Campaign to create the Baroque wing and the second earl, who added the Palladian wing and redesigned the surrounding landscape in the style of the English Garden Movement.

Cutler House has significance as the original building 'Stainborough' rebuilt by in 1670, which gives identity to the area. The house has been extensively remodelled and the roof raised, presumably during the construction the Baroque range from 1711.

The Baroque range has particular interest. It is featured in Vitruvius Britannicus and is described as "a remarkable and almost unique example of Franco-Prussian architecture in Georgian England" and by Nicholas Pevsner as "of a palatial splendour uncommon in England." The range is an almost unique example of Baroque architecture in Britain.

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The Palladian south front is also a demonstration of country house architecture on a massive scale, and has associative links with the remodelling of the landscape and the gardens of the English Landscape Movement.

The house is listed, grade 1 and the gardens also at grade 1. It is considered of **exceptional significance** owing to its architectural and aesthetic value. Some areas, including the Victorian range have a lesser status, but remain of **high significance**. Occasional later alterations, including the mid C20 additions within the courtyard ‘windy ridge’ have negative value and are considered to detract from significance, though remain a part of the buildings history.

The house has further significance as the seat of Thomas Wentworth, Viscount Wentworth and Earl of Strafford. Queen Anne’s representative in negotiations for the Treaty of Utrecht and the ‘Asiento’. His political affiliations are expressed in the design of the house and in planning and monuments in the wider landscape. His impact has had profound impacts on the way society and the UK economy developed in the eighteenth and nineteenth centuries. It is considered of **exceptional significance** owing to its associated historic value.

The house has societal and communal value, as The Northern College and its predecessor the Wentworth Castle College of Education. It also has societal and communal value within the Wentworth Castle Gardens. It is considered to have **high significance** owing to its communal value.

Owing to the rivalries between Thomas Wentworth and Thomas Watson of Wentworth Woodhouse, the house is considered to have associative value with Wentworth Woodhouse.

### **2.2.2 The significance of the Queen Anne Suite**

The Baroque Wing at Wentworth Castle was initiated c. 1711 by Thomas Wentworth, Baron Raby (1672–1739) and designed by Johann von Bodt. It is illustrated in Jan Kips painting of 1714 and by Colin Campbell in the first edition of Vitruvius Britannicus, 1715. The plasterwork in the stair is by Giuseppe Artari and Giovanni Bagutti, frequent collaborators with the architect James Gibbs. It was Gibbs who designed the interior of the long gallery. It is not recorded who carried out the plasterwork in Queen Anne 3, though it is from the same period. The suite demonstrates Thomas Wentworth’s allegiance to Queen Anne, immediately prior to the Hanoverian succession in 1714. The plasterwork and fixed hard decorations within Queen Anne 3 are considered of **exceptional significance** owing to its associated historic value.

## **3.0 Issues**

The ceiling has multiple hairline fractures and cracks visible throughout the expanse of the ceiling, cornice, and decorative elements. Although push testing revealed the plaster ceiling to be solid and stable, when viewed from above the condition of the lath and plaster is considered to be very poor. Laths are fixed very closely to each other and there are minimal plaster nibs/keys evident. Given the fracturing observed from the underside and the extant condition of the upper side the opinion of the surveyors (Hirst Conservation) is that there is a significant risk of the ceiling plaster failing with a potential

risk of collapse. As a result the College were advised to close the Queen Anne 3 room directly below.

The room has been placed out of use owing to safety concerns, together with the southern portion of the Long Gallery, which has also been placed out of use to prevent vibration or flexing of the floor which may increase the risk of collapse..

### 3.1 The Need for the Works

The Ceiling is of exceptional significance with evidential, architectural and social value. It is at risk of uncontrolled collapse which would result in a loss of historic fabric.

Photographic and LIDAR surveys have been carried out to record the condition of the ceiling and maintain some evidential value for replication in the event of further damage. This mitigates against loss but does not significantly reduce risk nor provide a solution.

Stabilisation of the ceiling is required to reduce the risk of the loss of irreplaceable historic fabric and to bring both the room and the section of the long gallery above, also a historically significant space) back into use.

### 3.2 Proposals

A sequential approach to the repair is proposed. The restraint and plaster repairs will be carried out by Excel Bespoke Plastering (or if necessary an equivalent specialist). Joinery and enabling works will be carried out by other heritage experienced contractors. The works will be carried out under the direction of an AABC Accredited conservation architect.

The sequence of the works is as follows:

1. Make photographic record of ceiling.
2. Install soft padding and a restraint system to the whole of the underside of the ceiling to prevent collapse.
3. Open up the floor of the long gallery in thirds to allow access to the rear of the ceiling. Boards to be carefully numbered and indexed and removed intact for refixing.
4. Make photographic record of upper face of ceiling.
5. Clean off dust and debris from upper face of ceiling, retaining plaster nibs. Treat laths with insecticide spray to halt and prevent ongoing woodworm damage.
6. Make further photographic record of upper face of ceiling.
7. Reinforce the upper surface with Crystacal or equivalent high strength plaster pad system, inserted into the lath, on suspension wires or noggings to reinforce the rear of the ceiling and provide additional support.
8. Locally remove the soft padding and restraint from below the ceiling, Fix the ceiling back to joists and support pad system using recessed stainless steel screws and washers inserted into the lime face at approx. 350-400mm centres.
9. Refix the floor boards in the long gallery in their original positions. Boards to be screwed into position rather than nailed to reduce vibration risk.
10. Repeat stages 3 to 9 until the whole ceiling is restrained and the soft padding removed.
11. Make good decorative finishes to ceiling where washer repairs have been carried out.
12. Make good floor finishes and return QA3 and long gallery back to use.

#### 4.0 The Impacts of the works

The works will restore the rooms to their original state and retain all surviving original features, including decorated plasterwork and related joinery. This will enhance the significance of the spaces by allowing safe access and ensuring that the full volumes and detailing can be viewed as originally intended.

A pad and restraint system will be installed within the floor voids, this is likely a permanent addition and may be construed as slight harm. They will not once plastered affect the appearance or evidential value of either room.

The restraint system together with the subsequent washer and screw repairs will involve drilling and insertion of metal into the historic plasterwork. The washer and screw repairs are permanent additions and may be construed as slight harm. They should not once plastered affect the appearance or evidential value of the space.

#### 5.0 Conclusion

The repairs are discrete solutions to stabilise the ceiling to prevent its loss. There is public benefit in stabilising this irreplaceable historic fabric and returning the rooms to use and allowing safe access.

The proposals should be considered in the context of national guidance in the National Planning Policy Framework. Paragraph 215. *'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 impact on the heritage asset (the listed building and curtilage) is minimal as has been demonstrated. There are benefits in the proposal in terms of stabilising this irreplaceable historic fabric and returning the rooms to use and allowing safe access.

The proposal is considered acceptable in terms of the NPPF, as there is only minor harm is the fully reversible fitting of a cupboard door.. There is no long term impact on the significance of the heritage assets (listed building and its curtilage).

It is considered the proposals meet the requirements of the NPPF and Local Plan Policies.

Report prepared by

Richard Storah  
for Storah Architecture

## **Appendix: List entry Summary**

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

Heritage Category:	Listed Building
Grade:	I
List Entry Number:	1151065
Date first listed:	25-Feb-1952
List Entry Name:	WENTWORTH CASTLE
Statutory Address:	WENTWORTH CASTLE
District:	Barnsley (Metropolitan Authority)
Parish:	Stainborough
National Grid Reference:	SE 31997 03182

### Details

STAINBOROUGH WENTWORTH CASTLE SE30SW 1/42 Wentworth Castle 25.2.52 GV I  
Country house now adult education college. North front incorporates 'The Cutler House' of 1670-2 for Sir Gervase Cutler II; east wing 1710-20 by Johann Bodt for Thomas Wentworth, 1st Earl of Strafford; south front c1760 by the 2nd Earl, William Wentworth, for himself under guidance of Charles Ross with carving by John Platt of Rotherham; C18 work executed by Strafford estate masons. C19 alterations and additions. Ashlar sandstone, lead roofs apart from c1670 house which has dressed sandstone and stone slates to front. c1670 double-pile house wrapped around by U-shaped range comprising Baroque- styled wing across east end with attached L-shaped Palladian-styled wing enclosing south and west sides. c1670 house: 3 storeys with basements and attics, 7 bays. Ashlar quoins, plinth with basement windows (bays, 6 and 7 still mullioned). Steps to single-storey porch having rusticated quoins, pulvinated frieze and cornice; doorway within has quoined architrave with keystone. Flanking 16-pane sashes with blocks to moulded sills and eared architraves, cornices linked by string course. Central 1st-floor sash in doorcase with keyed architrave and scrolled pediment on plain corbels. 2nd floor: cross-windows with similar architraves and later casements. Eaves cornice with 3-bay pediment having architraved Diocletian window in tympanum. Hipped roof with 2 corniced ashlar stacks to front slope and similar stack to front-right corner. Later wing on right linked by 3-storey curtain wall. Attached east wing projects by 4 bays on left. East front: 3 storeys, 2 : 4 : 3 : 4 : 2 bays; end and central projections having ground-floor quoins and giant Corinthian pilasters dividing bays above. Central doorway with later double door and fanlight with radial glazing bars beneath archivolt with carved keystone, garlands and instruments in spandrels. Flanking 24-pane sashes have sills on doubled, baluster-shaped pilasters and architraves with consoled cornices. Other bays have later round-headed sashes in similar surrounds, the sills cut away. 1st floor: band. Central bays: aprons to large round-headed sashes with archivolts having head-carved keystones. Garter arms above central bay flanked by copious floral reliefs. Other bays: panelled aprons to 24-pane sashes in architraves with consoled segmental pediments, squat attic windows, some with unequally-hung 12-pane sashes, moulded sills to eared architraves. Entablature with dentilled and modillioned cornice and balustrade. 3 ashlar stacks set to rear above each 4-bay part. South front: 2 storeys, with basement, 1 : 3 : 5 : 3 : 1 bays, 3-bay parts recessed. Plinth, rusticated basement, central pediment on 6 giant



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Corinthian columns. Steps across central bays, round-arched openings. Recessed bays have sashes with glazing bars in reveals. bays 1 and 13 each with 16-pane sash in raised panel. Piano nobile: deep band; balustraded aprons and linking string course to sills of sashes with glazing bars in architraves with bay-leaf friezes and pediments. Bays 1 and 13 have Corinthian Venetian windows. Attic: 6-pane windows in architraves. Strafford griffin and restrained carving in pediment; entablature and balustrade as east front; similar stacks set to rear.

Interior: c1670 house: entrance hall has bolection-moulded fireplace with cornice and wooden Jacobean overmantel; matching door architrave on left has fire-insurance plaque; oak panelling with carved frieze. Stair hall: late C17-style wooden staircase with foliage scrolls and cherubs in the balustrade, acanthus-carved brackets to the newels. Front 1st-floor room now subdivided has work of 1756 by Horace Walpole and Richard Bentley including chimneypiece with caryatids, moulded ceiling panels above rich frieze with cherubs. East wing: much of the sumptuous C18 decorative scheme survives. Marble-floored entrance hall: 4 Ionic columns and matching pilasters; bolection-moulded marble architraves to large 6-panel doors; enriched cornices to panelled ceiling, the centre panel depicting the Awakening of Aurora by Amigoni (or possibly by Angelica Kauffman (Humphrey, *Short History*, p9)), outer panels in the style of Clermont. Room to north with lions on marble chimneypiece, bay-leaf friezes to pedimented doorcases, panelled ceiling. End rooms of east front in Rococo style, that to south with pilasters flanking the fireplace, Strafford insignia in the capitals; modillioned cornice with corner shells and baskets of fruit, figure of Fame in centre panel; northern room has figure of Plenty. Italian staircase at north end of east front has wrought-iron balustrade to cantilevered stone staircase, pedimented doorcases and rich plasterwork panels by Artari and Bagutti with medallions of Fame and Perseus and the 1st Earl, 8 busts of Roman emperors set on the 1st-floor cornice. Long gallery by James Gibbs, occupies full length of 1st floor and has marble-columned end screens and 2 fine chimneypieces each with paired columns and pediment with griffin in tympanum and 3 eagles over; iron fire-baskets with brass enrichment. Windows of central bays flanked by Corinthian pilasters; southern Venetian window treated as on exterior. South front: central ground-floor rooms linked by elliptical arches. Cantilevered staircase to rear with iron balustrade; arcaded screen to 1st floor. Some painted ceilings of note on 1st floor, some with geometric panelling, ceilings at east end lowered. Strafford suite: ornate architraves with relief drops; mirrored frieze to vault with rose-trellis decoration.

Seat of the Wentworth family, later the Vernon-Wentworths, until purchased by Barnsley Corporation in 1948. Became the Northern College of Adult Education in 1978. Described and illustrated at length elsewhere:

Country Life: April 18th 1903 and October 25th 1924.

J. Humphrey, *Wentworth Castle, A Short History*, 1982.

J. Humphrey, 'A Prospect of Stainborough', unpublished thesis, Sheffield University, 1982.

J. Lees-Milne, *English Country Houses: Baroque 1685-1715*, 1970, pp236-242.

N. Pevsner, *B.O.E.*, 1967 ed, pp546-548.

Listing NGR: SE3199703182

## 2.5. Queen Anne Suite 3

Methods Employed for Survey: visual inspection, tactile push test. 5.4 x 6.3 x 5.7 Height.



*Figure 37. Queen Anne Suite 3 Location.*



*Figure 38. Queen Anne Suite 3 Ceiling.*

### 2.5.1. Underside of the Ceiling Queen Anne Suite 3

- The ceiling had multiple hairline fractures and cracks visible throughout the expanse of the ceiling, cornice, and decorative elements (Figure 39).
- An area of splitting was observed on the East wall cornice (Figure 40). Splitting was also found in multiple areas on the South wall cornice and between the ceiling and cornice at the corner of the South and East walls (Figure 41).
- What appears to be water ingress was visible on the East wall (Figure 41). Additionally, some paint loss was noted in the area of localized damage on the East wall. Possible water ingress was also visible on the South wall cornice (Figure 42).
- There were multiple embellishments missing from the cornice (Figure 42).
- One loose embellishment was removed during the survey as it was found to be a hazard to visitors to the room (Figure 44 & 45). A second embellishment on the West wall was found to be loose but not deemed dangerous or urgent to remove.
- The cornice and embellishments appear to be made from timber. Removal of the loose embellishment confirmed the materials was made of timber (Figure 45).
- Push testing revealed the plaster ceiling to be solid and stable.

### 2.5.2. Upper Side of Queen Anne Suite 3

The Upper Side of the Queen Anne Suite 3 was observed on the second site survey conducted by Tim Pretty on 13<sup>th</sup> May, 2024. The findings are as follows:

- The beam and joist construction is of the same design as above the Blue Room.
- Splits and shakes were again seen within the main beams along with steel plates and strengthening angle plates clearly having been added at some point in the past. A number of the original floor joists have pulled away from the main beams and appear to have minimal bearing on timber chocks which are assumed to have been added at a later date. A number of replacement floor joists were also noted indicating that extensive remedial works have been undertaken in the past.
- The condition of the lath and plaster is considered to be very poor especially when compared to the other areas observed within the Long Gallery. Laths are fixed very closely to each other and there are minimal plaster nibs/keys evident. Where they are present many were found to be fractured when subjected to tactile examination. There is clear evidence of woodworm activity and decay of the laths which were reduced to dust when physically examined. In addition, a significant amount of springing laths were found.
- Given the fracturing observed from the underside and the extant condition of the upper side it is our opinion that there is a significant risk of the ceiling plaster failing with a potential risk of collapse. Mark Barrett and Richard Storah were made aware of our findings and were advised to close the Queen Anne 3 room directly below.

The Upper Side of the Queen Anne Suite 3 was additionally surveyed by Keith Langton on 27<sup>th</sup> June, 2024. The findings are as follows:

- There are various stress related movement cracks across the ceiling, not following the line of the lath/joists etc.
- There is no pugging present.

- There are signs of previous interventive works such as metal joist hangers which are found to be too rigid. Additionally, multiple steel plates were found inserted in the oak beams where they have split over time. None of these methods have assisted in supporting the plasterwork.
- There are signs of wood worm, heavily decayed and loose/springing lath, and loose joists.
- Tight laths with no keys were found to be present.
- Where the reverse of the ceiling is exposed, the limited haired lime grinning through the lath, that have mostly been originally installed too close to each other, shows 'very little or no key/nibs' at all. It seems that when the void was potentially cleaned out some time back, all the key/nibs were scrapped-off and removed along with the pugging layer etc resulting in a ceiling which is unstable and requires stabilization.



*Tight lath and minimal key, previous interventions visible.*



*Insect presence visible.*

### 2.5.3. Queen Anne Suite 3 Recommendations

- The ceiling was found to be unstable and requires interventive stabilization methods employed as soon as possible.
- It is recommended that temporary propping is installed to support the ceiling plaster using suitable acrow props, planks, and plywood sheeting. All points of contact with the ceiling plaster should be cushioned with medium density plastazote foam padding. Once propped the remaining floorboards will need to be lifted to allow securing works to be undertaken from above.
- It is assumed that the entire area is likely to require securing as the defects described above were observed throughout all accessible areas where boards had been lifted and this equates to approximately 50 sq m.
- It is recommended that the reverse receives the Crystacal plaster pad system, inserted into the lath, on suspended on wires. Then, depending on the ceiling joist positions, SS screws and washers inserted into the lime face at approx. 350-400mm centres.

#### **Proposals**

##### Protection

Correx boarding to floor taped together, use temporary plastic sheeting (TPS) to walls attaching to timber cornice by staple gun and/or adhesive tape. Floor protection is necessary to prevent dripping of consolidate staining the floors and walls. Correx to the floor should be placed down prior to scaffolding installation to prevent damage to the floor and the room should be empty to prevent accidental damage to furniture/ pictures.

##### Ceiling temporary support

Due to the height of the ceiling, the installation of standard Acrow supports from the floor is not recommended. It will be necessary to install birdcage scaffolding of sufficient strength to allow the ceiling to be propped off the deck level once formed. Scaffold jacks from a birdcage fixed scaffolding to the face of the ceiling using lamb's wool insulation or a breathable foam packers should prevent pressure damage to the plaster while it is supported.

Other forms of ceiling support such as battens to the underside tie wired to joist above will not work with the ornamentation to the underside but more importantly it needs to be supported prior to any further removal of floorboards to the upper side.

##### Cleaning the upper side

After all remaining floorboards have been lifted by others the revealed area will be fully recorded and photographed.

The area to be cleared of any debris and vacuumed out to the full reverse following which further photographic images will be taken.

##### Structural works

Joiners, under the guidance of the Structural Engineer, to re brace any loose joists or to further support the structure (by others).

#### Further works including suspension

This can only be fully qualified following removal of the floorboards. We have assumed all areas to the upper side require suspension although this may reduce in quantity once the upper side has been fully appraised.

Removal of lath to the reverse in areas to 300mm x 100mm at 300-400mm centres. Approx. 220 no above the Queen Anne Suite by gently trimming the timber using a multi/feign cutting tool.

Consolidate any friable plaster if required with aqueous colloidal silica.

Brush-apply the plaster/AC300, Quadaxle pads with SS high-rib suspended on 'tagged' twisted wires.

On completion of the pads, remove all Acrow support to the room below.

Any further securing if required would be done from either towers or the birdcage using stainless steel screws and washers approx. The requirement for this work will be informed by the access and suspension works undertaken from above. It maybe that screw and washers can be limited to the span of plaster directly under the main beams.

Plaster repairs using lime /plaster of Paris or other approved to any cracks or defects.



#### 2.5.4. Queen Anne Suite 3 Images



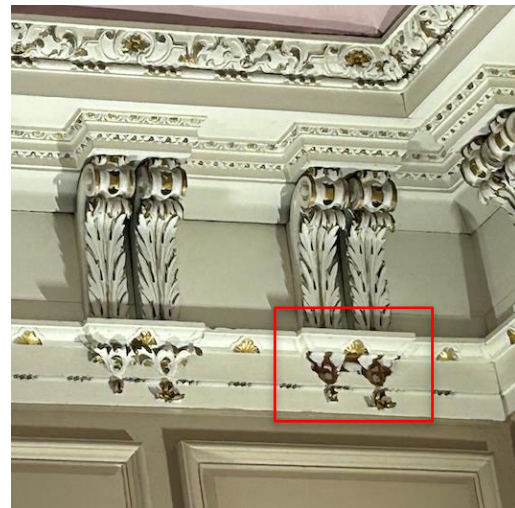
*Figure 39. Hairline cracks visible throughout the ceiling and cornice.*



*Figure 40. Splitting and ingress visible on the East wall cornice.*



*Figure 41. Splitting and ingress observed on the South wall cornice and ceiling.*



*Figure 42. Multiple embellishments missing throughout the cornice.*



*Figure 43. A loose embellishment was removed above the West wall during the survey due to being a hazard to visitors to the room.*



*Figure 44. Removed loose embellishment revealing the cornice to be made of timber.*

2.5.5. Queen Anne Suite 3 Defects Diagram

