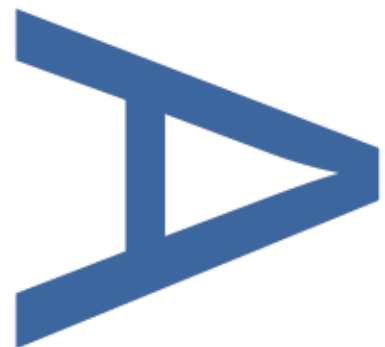


**BUILDING RECORDING WATCHING
BRIEF ON THE EAST GABLE OF
THE QUEEN'S HOUSE,
HM TOWER OF LONDON,
LONDON BOROUGH OF TOWER
HAMLETS**

PCA REPORT NO: R13063

OCTOBER 2017



PRE-CONSTRUCT ARCHAEOLOGY

**Building Recording Watching Brief on the East Gable of the Queens House,
HM Tower of London, London Borough of Tower Hamlets**

Site Code: ToL 170

Central NGR: TQ 33526 80519

Commissioning Client: Historic Royal Palaces

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East Gable of the Queens House,
HM Tower of London,
London Borough of Tower Hamlets

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1 NON-TECHNICAL SUMMARY

- 1.1 Pre-Construct Archaeology Limited was commissioned by Historic Royal Palaces to undertake a building recording watching brief during conservation work to the east gable of the Queen's House, HM Tower of London, London Borough of Tower Hamlets centred on OS NGR TQ 33526 80519. The recording was carried out intermittently from May to July 2015 as a condition of Scheduled Monument Consent for the conservation work.
- 1.2 The Tower of London is a Scheduled Monument, a UNESCO World Heritage Site and lies in the Tower of London Conservation Area. The Queen's House forms part of the Grade I listed 'Tower of London: Inner curtain wall and towers' and is described as 'The Queen's House: Lieutenant's lodgings, now house of the Resident Governor and offices. c.1540; late C17 and C18 additions and alterations. Timber-framed, with ogee-bracing to square panels; late C17 and C18 brick facing to ground floor and to rear; cross-gabled old plain tile roof; brick ridge, end and rear lateral stacks. L-plan. 3 storeys and attic; 4 gabled bays to each range with west bay of south wing obscured by west wing...; early C19 stick-baluster staircase from ground to first floor, whence it continues as late C17 open-well staircase...; first-floor room to east has large arched kitchen fireplace....'
- 1.3 The archaeological building recording work has established that the east gable elevation of the Queen's House was originally constructed in the early post-medieval (Tudor/Stuart) period between 1450 and 1700. The wall was constructed of small regular courses of Kentish Ragstone rubble above larger blocks of Kentish Ragstone ashlar at the base of the second floor level. The remains of a Tudor/Stuart brick chimneystack is visible in the north side of the wall. Both the stone rubble wall and the brick chimneystack were bonded in a soft light-brown lime sandy Tudor/Stuart mortar with chalk inclusions showing that the wall and its chimneystack were constructed at the same time. This chimneystack served the large arched kitchen fireplace at first floor level. Documentary sources detail that in 1604-05 the back wall of the kitchen chimney was broken down, 'to save the house the kitching beinge on fyer' (TNA E351/3240). A view of the Tower from the south drawn by Wenceslas Hollar in 1637-41 is the first illustration to clearly show the kitchen with its distinctive chimneystack and its east gable wall.
- 1.4 A small window was found during the conservation work that had been blocked with late 18th/19th century brickwork. The window appears to have been inserted into the centre of the gable wall perhaps causing the large bifurcating crack that was visible only on the internal side of the east gable wall. This crack was found to have existed for some considerable time and had not been repaired in the more recent past (18th to 21st centuries).
- 1.5 Alterations to the east gable wall in the 19th and 20th centuries included the rebuilding of the upper part of the gable wall as well as the chimneystack above roof height in post-Great Fire brickwork and the application of patches of cement render to the external surface of the wall.

2 INTRODUCTION

2.1 Background

2.1.1 Pre-Construct Archaeology Limited (PCA) was commissioned by Historic Royal Palaces (HRP) to undertake historic building recording watching brief during conservation work of the east gable of the Queen's House, HM Tower of London, London Borough of Tower Hamlets centred on Ordnance Survey NGR TQ 33526 80519. The conservation work on the east gable was carried out because a large (2.5m long) structural crack was visible on the west (internal) side of the east gable wall. The recording was carried out as a condition of Scheduled Monument Consent for the conservation work on 11th May, 24th June and 15th July 2015.

2.1.2 The Tower of London is a Scheduled Monument (Greater London SM No 10) and a UNESCO World Heritage Site (No 488). The Queen's House lies within the boundaries of these designations. Designations of this level recognise that the Tower of London and its buildings are of international significance.

2.1.3 The *Tower of London Conservation Plan* (2010) lists the Queen's House as of exceptional significance. The Tower of London lies in the Tower of London Conservation Area. The Queen's House forms part of the Grade I listed *Inner Curtain Wall, with Mural towers, The Queen's House, Nos 1, 2, 4, 5 and 7 Tower Green and the New Armouries* which are described in their listing citation as follows:

'The Tower of London: Inner curtain wall and towers...The Queen's House: Lieutenant's lodgings, now house of the Resident Governor and offices. c.1540; late C17 and C18 additions and alterations. Timber-framed, with ogee-bracing to square panels; late C17 and C18 brick facing to ground floor and to rear; cross-gabled old plain tile roof; brick ridge, end and rear lateral stacks. L-plan. 3 storeys and attic; 4 gabled bays to each range with west bay of south wing obscured by west wing. Brick ground floor has one-storey extension of 1663 in angle of wings, with segmental brick arches over 8-pane sashes with thick glazing bars and early C19 twelve-pane sashes, and C18 six-panelled door set in moulded mould architrave. Late C17 stucco facing to 3 first-floor bays of west wing, with pedimented cornice over early C19 twelve-pane sashes. C18 panelling; early C19 stick-baluster staircase from ground to first floor, whence it continues as late C17 open-well staircase with ramped handrail set on turned balusters with finely-carved brackets to treads, and bolection-panelled dado; first-floor room to east has large arched kitchen fireplace. Mid C16 first-floor hall to penultimate western bay of south range, which was floored in early C17 when upper floor inserted: the second-floor room has mid C16 3-bay roof, which had queen posts, lateral bracing and braced tie beams removed for early C17 chamber, which has elaborate memorial tablet by fireplace erected 1608 to commemorate defect of Gunpowder Plot. Noted as having queen-post roofs with butt purlins. Access to mural passages of inner curtain wall and to Bell Tower (qv). Basement

of south range has medieval masonry associated with the constable's house built 1361-1366 on the same site...'

2.1.4 Historic Royal Palaces, as custodian of the Tower, seek the agreement of Historic England regarding any repairs, improvements or alterations that may impact upon historic fabric. Scheduled Monument Consent has been granted by Historic England for the conservation work. The recording during conservation was carried out as a condition of this consent.

2.2 Site Location

2.2.1 The Queen's House lies in the south-west corner of the inner ward of the Tower of London. It is a 16th-century timber framed house arranged in an L-shape with two wings on a north-south and an east-west alignment referred to as the west wing and south wing, respectively. The recorded east gable wall lies at the east end of the south wing.

2.2.2 The Queen's House is located at Ordnance Survey National Grid Reference TQ 33526 80519 (**Figures 1 and 2**).

3 METHODOLOGY

3.1 Aims and Objectives

3.1.1 The objectives of the historic building recording watching brief were as follows:

- To identify and date the brick, stone and mortars visible in the east gable wall;
- To identify any phases of development visible in the east gable wall;
- To record any features, such as blocked window openings, straight construction joints etc;
- To record any significant pieces of worked stone;
- To establish if the crack was an historic or recent episode
- To carry out the above tasks to the standard of a Level 4 survey (Historic England, 2016), the full requirements of which are listed below.
- To provide as necessary a well-informed watching brief service during the conservation works.

3.2 Documentary Research

3.2.1 The historical background detailed in Gregory, 2014b '*The Queen's House and Bell Tower: Statement of Significance*' has been repeated in this report. No new documentary research was undertaken for this report.

3.3 On-Site Recording

3.3.1 Digital photographs were taken during the conservation work by the PCA Petrologist (**Plates 3 to 20**). **Plates 1, 2 and 21** were provided by HRP.

3.3.2 The stone, ceramic building material and mortar in the external elevation was identified during conservation work and is described in Section 5 below. The observation work was undertaken from scaffold platforms erected for the conservation work. The internal side of the elevation was observed from a void within the Queens House at second floor level (**Figures 16 and 17**) accessed from the roof space (**Plate 21**). The second floor was a later insertion over the first floor kitchen, which was originally double height. The void is located behind (east of) a row of three north-south cupboards inserted into the second floor room above the kitchen (**Figures 16 and 17**). The void is a small dark space, which made recording difficult. Recording in the void was carried out from the ladder that was used to access the space.

3.3.3 The building recording of the east gable wall was carried out in accordance with Level 4 as set out in Historic England 2016 *Understanding Historic Buildings; A Guide to Good Recording Practice*. Identification of the *in-situ* fabric was conducted using a Gowlland x10 magnification hand lens by Dr Kevin Hayward, PCA's petrologist.

3.3.4 Bricks were analysed using the system of ceramic building material classification used in archaeological work in Greater London. Each fabric number (e.g. fabric 3033) specifies

the composition, form, approximate method of manufacture and date range of the material. Examples of the brick fabrics can be found in the archives of the Museum of London and Pre-Construct Archaeology.

3.4 Project Archive

3.4.1 The project archive is currently held at the offices of Pre-Construct Archaeology Limited in Brockley, London, under the site code ToL 170. It is anticipated that the archive (copies of the report, drawings and photographs) will be lodged with Historic Royal Palaces in due course.

3.5 Guidance

3.5.1 All works were undertaken in accordance with standards set out in:

- ClfA (2014) *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*
- Historic England (2015) *Greater London Archaeology Advisory Service: Guidelines for Archaeological Projects in Greater London.*
- Historic England (2016) *Understanding Historic Buildings: A Guide to Good Recording Practice*

4 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

4.1 Introduction

4.1.1 The following historical and archaeological background is mainly taken from Gregory, 2014b.

4.2 The Tower of London

4.2.1 The building of the Tower of London was begun shortly after the Conquest by William the Conqueror, whose great keep, the 'White Tower', sits at its heart. The fortress was first constructed within the south-eastern corner of the ancient Roman city walls, along the riverbank of the Thames. Extended beyond the boundaries of the Roman city walls by Henry III, and developed as a concentric castle by Edward I in the 13th century, the Tower – the monarch's stronghold amidst an often hostile city – became the home of major State Institutions, as well as the setting for nationally significant historical events. The Tower is the home of the Coronation Regalia and Crown Jewels, and the birthplace of the Royal Armouries Museum, which still displays part of its collection within the White Tower. The fortress is most strongly associated in the popular imagination with the Tudors, and the turbulent events of the 16th century, particularly with the many prisoners kept within its walls. The 19th century Romantic perception of the Tower, and the castle's emerging identity as a tourist attraction, led to the demolition of many institutional buildings and the addition of new 'medieval' style neo-gothic edifices.

4.3 The Queen's House

4.3.1 The Bell Tower forms the south-west corner of the inner ward of the Tower of London. It is a late 12th-century corner tower that originally formed part of the outer defences of the medieval castle. The Queen's House lies immediately to the north-east of the Bell Tower and its adjacent Inner Curtain Walls. The first house on this site was probably built in 1360. This was built for the Constable of the Tower at great expense.

4.3.2 A summary report on archaeological excavations carried out in the early 1960s (on file at Historic England, Waterhouse Square) concluded that: 'The forerunner of the Queen's House probably consisted of a main east-west range slightly narrower but the same length as the present Queen's House. Its ground floor, which was lower than the floor level now, was divided in two or more probably three rooms by stone cross walls abutting the curtain wall. Two, and probably the third rooms were interconnecting, and the third (western) room was probably connected with the Bell Tower, by an additional doorway – now blocked in the east wall of the Tower's lower chamber. A further ground floor chamber may have existed abutting the west curtain wall and on the north side of the Bell Tower. The presence of the large buttress on the north-east angle of the main south range and an intermediate buttress to the internal cross wall suggests that there was a substantial upper storey (or storeys) which then as now probably contained the living

apartments. Indications in the East gable wall suggest that this superstructure may have been at least partially timber framed'.

- 4.3.3 The earlier building appears to have stood until the early 16th century, when it became the residence of the Lieutenant of the Tower. In 1539 Cromwell's Remembrances record several reminders of the poor state of the building and the need to address it (L&P XIV.ii, 287, 427 and 495; TNA SP 1/153 f.171; BL Cotton Titus MS B/I f.446v). The work to rebuild the Lieutenant's House was underway by June 1540, the letters guaranteeing funds to the Lieutenant, Sir Edmund Walsingham, seemingly having been signed by Cromwell only weeks, if not days, before his own arrest and imprisonment at the Tower (BL Arundel MS 97 f.140). The extent of the rebuilding is unclear. It would seem, on the basis of the extant building, that the works of 1540 involved a wholesale demolition of the earlier house and that an entirely new building was constructed in its place.
- 4.3.4 What is clear, however, is that the extant building was constructed in at least two broad phases. The earliest, presumably that dating to 1540, is the range to the south containing the kitchen and Council Chamber as well as space for domestic chambers. The Council Chamber formed the hub of the house and in its original configuration was a double-height first floor great hall, the division of which was effected by the insertion of a floor at second-storey level in 1607 (BL Add. MS 14044 f.9r). Above it retains its original open roof structure, though in a much altered form. Similarly the kitchen also appears to have been a double-height room, and like the Council Chamber retains its original roof structure. Both roofs have been identified as of broadly early 16th century date on the basis of their appearance and construction.
- 4.3.5 The second build phase saw the addition of the west range which abuts awkwardly with the earlier south range and appears to have been built against it rather than as part of a single planned build. It is difficult to give an exact date to the construction of this addition since there is no record amongst the surviving accounts but it must have been added shortly after the completion of the south range and was certainly standing by 1566 when the servants of the Duchess of Lennox inscribed their names and the date on the stone lintel of a fireplace in a second floor room of the west range. The fireplace itself is of a type typical of the early- to mid-16th century.
- 4.3.6 Agas 1561 map of London produced c.1633 (**Figure 3**) is a bird's-eye view of the city from the south. It shows the Bell Tower and adjacent Inner Curtain Wall with the south elevation of the Queens House. Three gable roofs are shown over the Queen's House with two pairs of small windows above a large window with rounded head and three small windows below in the south elevation/Inner Curtain Wall. The kitchen with its distinctive chimney stack and its east gable wall are not clearly shown on this map or on Haiward and Gascoyne plan of 1597 (**Figure 4**).
- 4.3.7 The first few years of the 17th century saw some small repairs and alterations, but nothing in the way of substantial building phases. In 1604-05 the back wall of the kitchen chimney was broken down, 'to save the house the kitching beinge on fyer' (TNA

- E351/3240). In 1605-06, various payments were made for works in the Lieutenant's kitchen.
- 4.3.8 A view of the Tower from the south drawn by Wenceslas Hollar in 1637-41 (**Figure 5**; British Museum 1859-8-6-389; TNA WORK 5/13 f.20v) again shows the Bell Tower, adjacent Inner Curtain Wall and Queen's House. The three tall gable roofs are shown with a large traceried gothic type window below the central gable. To the east, the kitchen with its distinctive chimney stack and its east gable wall are shown clearly for the first time.
- 4.3.9 Holcroft Blood's bird's-eye view of the Tower made in 1688 (**Figure 6**) shows the kitchen of the Queen's House with its east gable wall although the chimney stack is not depicted. A 1720 illustration (**Figure 7**) held by the Royal Armouries shows the Queen's House from the north with the kitchen and its distinctive chimney stack and its east gable wall.
- 4.3.10 William Maitland's 1756 drawing in *History and Survey of London* (**Figure 8**) and George Dance the younger's 1790 'View of the Tower from the Thames' (**Figure 9**) clearly shows the parapet of the south elevation of the Queen's House/Inner Curtain Wall and three windows in positions that roughly equate with extant locations as well as the distinctive chimney stack over the kitchen. A c.1840 drawing of 'The Lieutenant's Lodgings from the north' (**Figure 10**) clearly shows the east gable of the Queen's House and its tall chimneystack.
- 4.3.11 Anthony Salvin's c.1860 drawing showing the south elevation of the Bell Tower and the Queen's House (**Figure 11**) again depicts the three gable roofs over the Queen's House with a line at the height of the parapet coping. All of the window openings shown in this drawing are still extant and only two small windows have since been added. The gable roof over the kitchen is shown and appears to extend further to the east than it does today. A tall kitchen chimneystack is shown in the centre of this roof.
- 4.3.12 The east gable wall of the Queen's House is shown in plan on the 1872-73 and 1896 Ordnance Survey maps (**Figures 12 and 13**).

5 DESCRIPTION

5.1 Introduction

5.1.1 An historic building recording watching brief was carried out during conservation work to the east gable of the Queen's House between May and July 2015 (**Figures 14 and 15; Plate 1**). Part of the conservation work on the exterior elevation involved the removal of patches of hard, late 19th or early 20th century, cement render, revealing that the wall was constructed of a wide variety of stone, brick and mortar types. The cement render had been applied in patches and did not totally cover the elevation. It had become blackened with soot over the years (**Figure 15**). A large bifurcating crack was visible on the internal (west) side of the elevation and was repaired as part of the conservation work.

5.1.2 The aim of the monitoring was to date the masonry, to identify any development phases, to record any significant pieces of worked stone and to establish if the internal crack was an historic or a much more recent episode.

5.2 External (east) side of the east gable elevation

5.2.1 The conservation work consisted of removing patches of hard carbonate cement render as well as areas of loose masonry from the rubble wall beneath the brick gable and chimney in the east end wall of the Queens House. Stone and brick types were identified by PCA's Petrologist and marked on a composite image provided by HRP consisting of a mosaic of photographs of the external east elevation stitched together (**Figure 15**).

5.2.2 As well as stone masonry, this section of wall also included the remains (some three metre high) of an original Tudor/Stuart red brick chimneystack at its north end. The upper part of this chimneystack had been rebuilt in the late 19th century in post-Great Fire bricks (**Plates 1 and 2**).

Red Tudor Brick Chimney Stack

5.2.3 A three metre high section of relict red brick work in Old English Bond, consisting of 30 courses of small, shallow wide bricks (221x109x45-53mm) in brick fabric 3033 (1450-1700) was present along the northern edge of the gable wall (**Figure 15; Plates 3 to 8**). The bricks were poorly made with sunken margins and had a soft light-brown lime sandy mortar with chalk inclusions (**Plate 7**). This mortar type is grouped as 'Type C' in Hayward, 2016 Appendix 2, and is described as a 'very light fawn (2.5YR 8/6) fine sandy lime mortar with inclusions of chalk and flint'. Tudor/Stuart brickwork is bonded in this mortar in the flues and relict chimneys of the Bell Tower (*ibid.*). The same brickwork and mortar was observed internally forming the south elevation of the kitchen chimney breast lying at right angles to the other side of the Gable Wall (**Figures 16 and 17**).

Upper brick gable and chimney stack

5.2.4 The uppermost part of the gable and the chimneystack were constructed in frogged post-Great Fire bricks in fabric 3032 (1750-1900) bonded in a hard flinty gravel mortar (**Figure 15**). This mortar type is grouped as 'Type B' in Hayward, 2016 Appendix 2 and is

described as a 'very hard pale grey (10YR 7/2) to light yellow-brown (2.5Y 6/3) gravel mortar with variable inclusions of large angular brown flint up to 30mm across' and dated to the '19th and 20th century'. It has been recorded in the upper part of the Inner Curtain wall and in the Staircase Turret of the Bell Tower (*ibid.*).

- 5.2.5 This combination of brick and mortar in the uppermost part of the gable and the chimney stack is thought to date to the period 1825 to 1900 and shows that they were rebuilt during this period.

Stone rubble part of the gable wall

- 5.2.6 The lower two metres of the stone part of the wall is as it was originally built with small regular courses of Kentish Ragstone rubble above larger blocks of Ragstone ashlar at the base of the second floor level (**Plate 9**). This part of the wall was bonded in a soft light-brown lime sandy mortar with chalk inclusions (Type C in Hayward 2016; Appendix 2). This mortar type dates to the Tudor/Stuart period (see above).

- 5.2.7 Patches of thick late 19th/early 20th century grey and brown concrete render as well as a patchwork of Roman cement and grey Portland cement sometimes with embedded fragments of pan roofing tile (1630-1850; **Plate 4**) and post-Great Fire brick (1664-1900) were removed from the upper part of the stone rubble wall during the conservation work. This revealed that the wall was constructed of a mosaic of Kentish Ragstone rubble, red Tudor brick fragments in fabric 3033 (1450-1700), a reused lump of Lincolnshire Limestone (Barnack stone) and post-medieval peg tile in fabric 2276 (1480-1900) (**Plates 3, 5, 14 to 17**). All were bonded in soft light-brown lime sandy mortar with chalk inclusions (Type C in Hayward 2016, Appendix 2); the same type as that used in the Tudor brick chimney stack on the north side of the east end gable wall. This suggests that the gable wall was originally constructed in the early post-medieval period between 1450 and 1700.

- 5.2.8 Near the centre of the elevation an area (80cm deep by 60cm across) had been infilled (**Figure 15**). This infill was removed during the conservation work revealing a small window that had been blocked with 4 courses of post-Great Fire bricks (1664-1900) on its west (internal) side (**Plates 18 and 19**). The infill included a medieval Reigate Stone engaged column (**Plate 20**).

5.3 Internal (west) side of the east gable elevation

- 5.3.1 The conservation work also consisted of repairing a substantial 2.5 metre long crack that was visible on the internal (west) side of the east gable elevation of the Queens House.

General Observations

- 5.3.2 The north, east and south walls of the void on the interior side of the east gable elevation of the Queens House comprised the "stepped" red brick chimney stack, the rubble masonry wall with a long bifurcating crack, some 5-10cm wide, and another rubble masonry wall, respectively (**Figures 16 and 17**).

Chimneystack (north wall)

- 5.3.3 Part of the stepped chimneystack that formed the north wall was constructed in very shallow (48mm), wide (108mm) hand-made red-bricks in the hard sandy fabric 3033 (1450-1700). These Tudor/Stuart red bricks are poorly made and have sunken margins and are the same as those defining the chimney at the north end of the external side of the east gable wall (**Plates 2 to 8**). They are commonly found in buildings in London. The bricks are bonded in the same loose calf brown sandy mortar with flecks of chalk and flint as the chimney visible in the north end of the external side of the east gable wall. This Tudor/Early Stuart chimneystack is a similar date to the remains of chimney stack at the Bell Tower (Hayward, 2016).

East masonry wall

- 5.3.4 The east internal masonry wall is 1.4m high and consists of mixed stone, brick and peg tile bonded in the same type of loose calf brown sandy mortar used in the chimneystack. This suggests that both were built at the same time. Stone made up roughly 70% of the wall and consists of broken ashlar blocks of Reigate stone, chalk, Caen stone as well as Kentish Ragstone. Reigate Stone is particularly common (60%) including a small section of what appeared to be an engaged column base, possibly Romanesque and part of a Reigate stone plinth with a bevelled edge. Reigate Stone, Caen Stone, chalk and Kentish Ragstone are typical medieval stone types used in London. This and the reuse of at least one earlier medieval engaged base suggest that they derive from medieval structure(s) in the Tower. Complete and broken sections of red Tudor/Stuart bricks (fabric 3033; 1450-1700) and unglazed poorly made red sandy peg tiles (fabric 2276; 1480-1700) date this wall to the early post-medieval period.

- 5.3.5 The vertical crack ran the full height (1.4m) of the west (internal) side of the gable wall. It was a very large bifurcating crack, which increased in width from 1-2cm to up to 10-15cm in places lower down. It is clear that given the absence of any later post-medieval mortar or post-Great Fire brick work repair that this crack has been in place from at least 1600 if not before. The cause of the crack may have been the insertion of the small early post-medieval window, which was visible in the external (east) side of the gable wall. In addition, this wall appears to have been rapidly constructed, given that so many bits of regular and irregular stone, brick and tile have been incorporated. Also, the whole mass is bonded in a rather weak sandy mortar, which would have been far more suitable for bonding bricks. This would have made it susceptible to cracking very soon after construction.

South masonry wall

- 5.3.6 A south internal wall is some 1.2m high by 1.4m wide. This wall is constructed of the same broken up medieval chalk, Reigate and Kentish Ragstone ashlar and is bonded in the same loose calf brown sandy mortar as the chimneystack and east masonry wall

suggesting that they were all built at the same time. A single course of red Tudor/Stuart bricks, 45mm thick by 108mm across, finishes the top of this wall.

6 CONCLUSION

- 6.1 The archaeological building recording work has established that the east gable elevation of the Queen's House was originally constructed in the early post-medieval (Tudor/Stuart) period between 1450 and 1700. The wall was constructed of small regular courses of Kentish Ragstone rubble above larger blocks of Kentish Ragstone ashlar at the base of the second floor level. The remains of a Tudor/Stuart brick chimneystack is visible in the north side of the wall. Both the stone rubble wall and the brick chimney stack were bonded in a soft light-brown lime sandy Tudor/Stuart mortar with chalk inclusions showing that the wall and its chimneystack were constructed at the same time. This chimneystack served the large arched kitchen fireplace at first floor level. Documentary sources detail that in 1604-05 the back wall of the kitchen chimney was broken down, 'to save the house the kitching beinge on fyer' (TNA E351/3240). A view of the Tower from the south drawn by Wenceslas Hollar in 1637-41 is the first illustration to clearly show the gable roofed kitchen with its distinctive chimneystack and its east gable wall.
- 6.2 A small window was found during the conservation work that had been blocked with 18th/19th century brickwork. The window appears to have been inserted into the centre of the gable wall perhaps causing the large bifurcating crack that was visible only on the internal side of the east gable wall. This crack was found to be an historic crack that had been there for some considerable time and had not been repaired in the more recent past (18th to 20th centuries).
- 6.3 Alterations to the east gable wall in the 19th and 20th centuries included the rebuilding of the upper part of the gable wall as well as the chimneystack above roof height in post-Great Fire brickwork and the application of patches of cement render to the external surface of the wall.

7 BIBLIOGRAPHY

Hayward, K.M.J. (2016) *Assessment Report on the Archaeological Building Recording (including petrographic survey) and Watching Brief at the Bell Tower and adjacent Inner Curtain Wall, HM Tower of London, London Borough of Tower Hamlets* Unpublished Pre-Construct Archaeology Report

8 ACKNOWLEDGEMENTS

- 8.1 Pre-Construct Archaeology Limited would like to thank Historic Royal Palaces for commissioning the historic building recording of the east gable wall of the Queen's House. The help and assistance of Alex Attelsey at Historic Royal Palaces is gratefully acknowledged.
- 8.2 The historic building recording was managed for Pre-Construct Archaeology by Charlotte Matthews. The on-site recording and photographic survey was carried out by Kevin Hayward. Kevin Hayward and Charlotte Matthews wrote this report and Hayley Baxter prepared the illustrations.

APPENDIX 1: OASIS FORM

OASIS ID: preconst1-299010

Project details

Project name	East Gable Wall of the Queen's House, Tower of London
Short description of the project	Pre-Construct Archaeology Limited was commissioned by Historic Royal Palaces to undertake a building recording watching brief during conservation work to the east gable of the Queen's House, HM Tower of London, Tower Hamlets. The recording was carried out in 2015 as a condition of Scheduled Monument Consent for the conservation work. The Queen's House is Grade I listed and is described as 'Lieutenant's lodgings...c.1540; late C17 and C18 additions and alterations.' The building recording established that the east gable of the Queen's House was originally constructed in the early post-medieval (Tudor/Stuart) period between 1450 and 1700. The wall was constructed of small regular courses of Kentish Ragstone rubble above larger blocks of Kentish Ragstone ashlar. The remains of a Tudor/Stuart brick chimneystack are visible in the north side of the wall. Both wall and chimneystack were bonded in a lime Tudor/Stuart mortar showing that they were constructed at the same time. The chimneystack served a large first floor kitchen fireplace. Documentary sources detail that in 1604-05 the back wall of the kitchen chimney was broken down, 'to save the house the kitching beinge on fyer'. A small inserted window was found during the conservation work that had been blocked with late 18th/19th century brickwork. Alterations to the east gable wall in the 19th and 20th centuries included the rebuilding of the upper part of the gable wall as well as the chimneystack above roof height and the application of patches of cement render to the external surface of the wall.
Project dates	Start: 11-05-2015 End: 15-07-2015
Previous/future work	Yes / No
Any associated project reference codes	ToL 170 - Sitecode
Type of project	Building Recording
Site status	Scheduled Monument (SM)
Site status	Listed Building
Current Land use	Other 2 - In use as a building
Monument type	WALL Post Medieval
Monument type	CHIMNEYSTACK Post Medieval
Significant Finds	NONE None
Methods & techniques	"Survey/Recording Of Fabric/Structure"
Prompt	Scheduled Monument Consent

Project location

Country	England
Site location	GREATER LONDON TOWER HAMLETS TOWER HAMLETS East Gable of the Queen's House, Tower of London
Postcode	EC3N 4AB
Site coordinates	TQ 33526 80519 51.507305979195 -0.075772619067 51 30 26 N 000 04 32 W Point

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	Historic Royal Palaces
Project design originator	Charlotte Matthews
Project director/manager	Charlotte Matthews
Project supervisor	Kevin Hayward
Type of sponsor/funding body	Historic Royal Palaces
Name of sponsor/funding body	Historic Royal Palaces

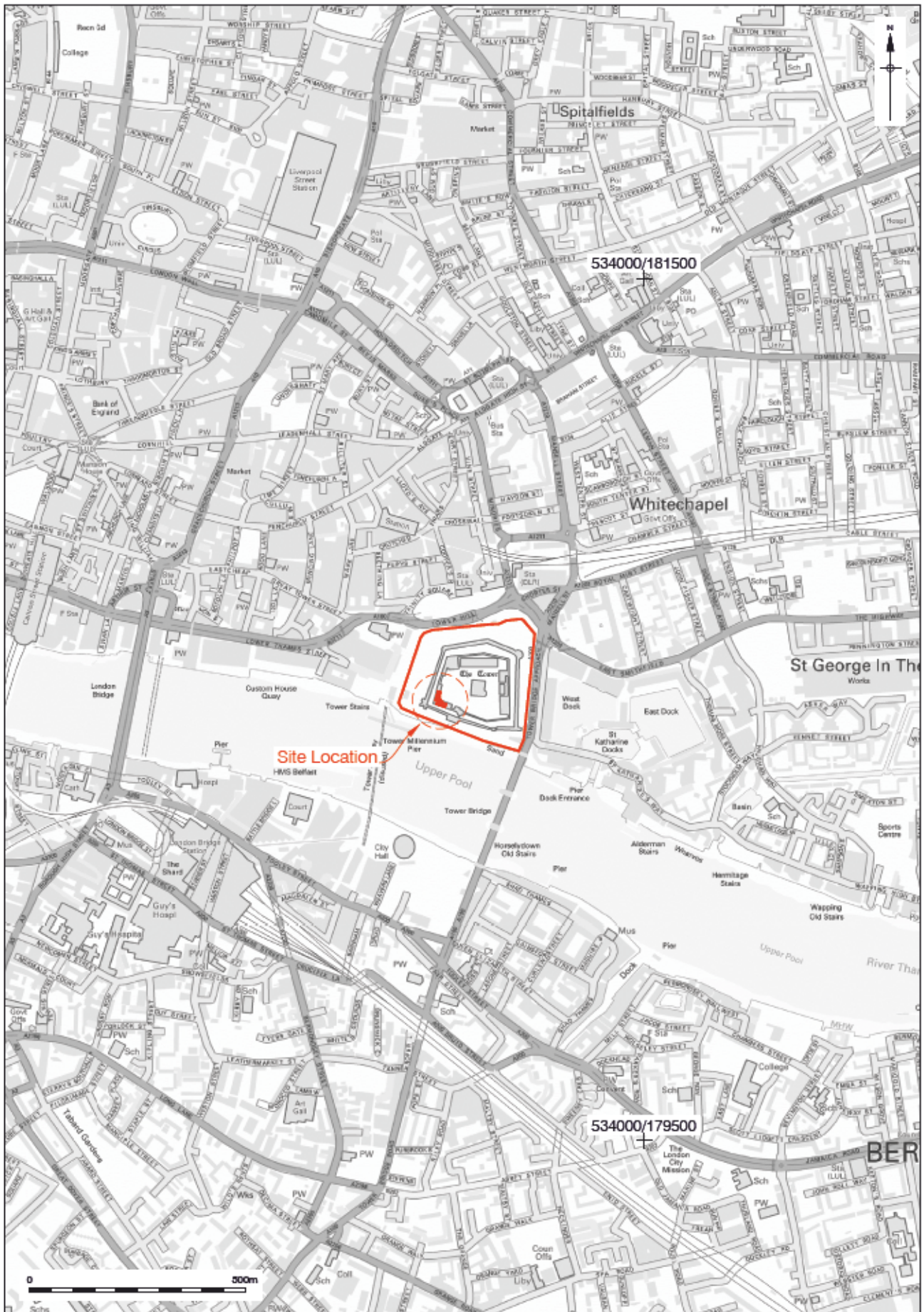
Project archives

Physical Archive Exists?	No
Digital Archive recipient	Historic Royal Palaces
Digital Archive ID	ToL 170
Digital Contents	"none"
Digital Media available	"Images raster / digital photography"
Paper Archive recipient	Historic Royal Palaces
Paper Archive ID	ToL 170
Paper Contents	"none"
Paper Media available	"Report"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Building Recording Watching Brief on the East Gable of the Queens House, HM Tower of London, London Borough of Tower Hamlets
Author(s)/Editor(s)	Hayward, K.
Other bibliographic details	PCA Report No. R13063
Date	2017
Issuer or publisher	Pre-Construct Archaeology Limited
Place of issue or publication	Brockley, London

Description	A4 PDF Report
Entered by	Charlotte Matthews (cmatthews@pre-construct.com)
Entered on	20 October 2017

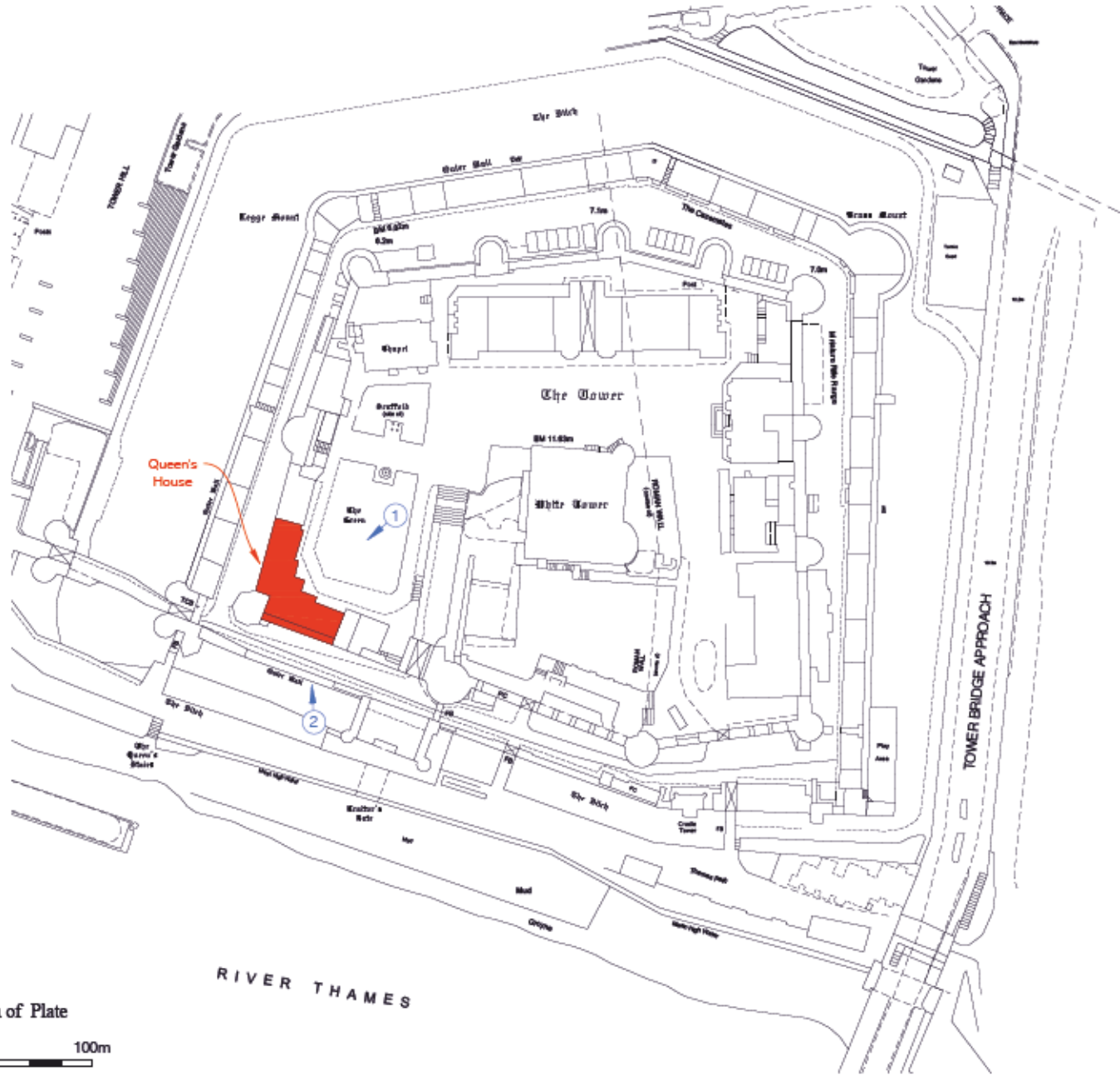


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Figure 1
 Site Location
 1:12,500 at A4

533400/180620
+

533400/180420
+

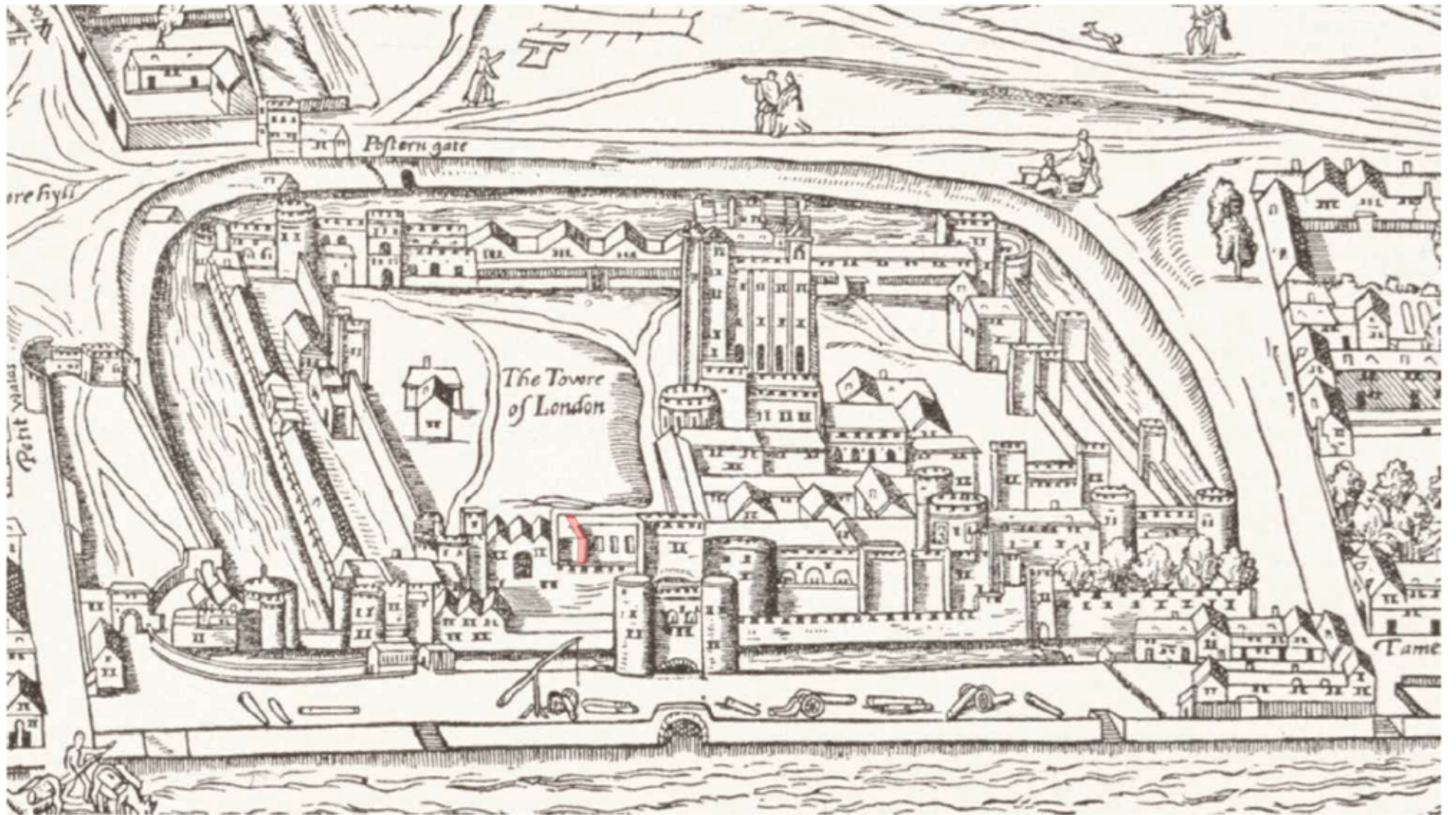


① Location and Direction of Plate



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Figure 2
Detailed Site Location
1:2,000 at A4



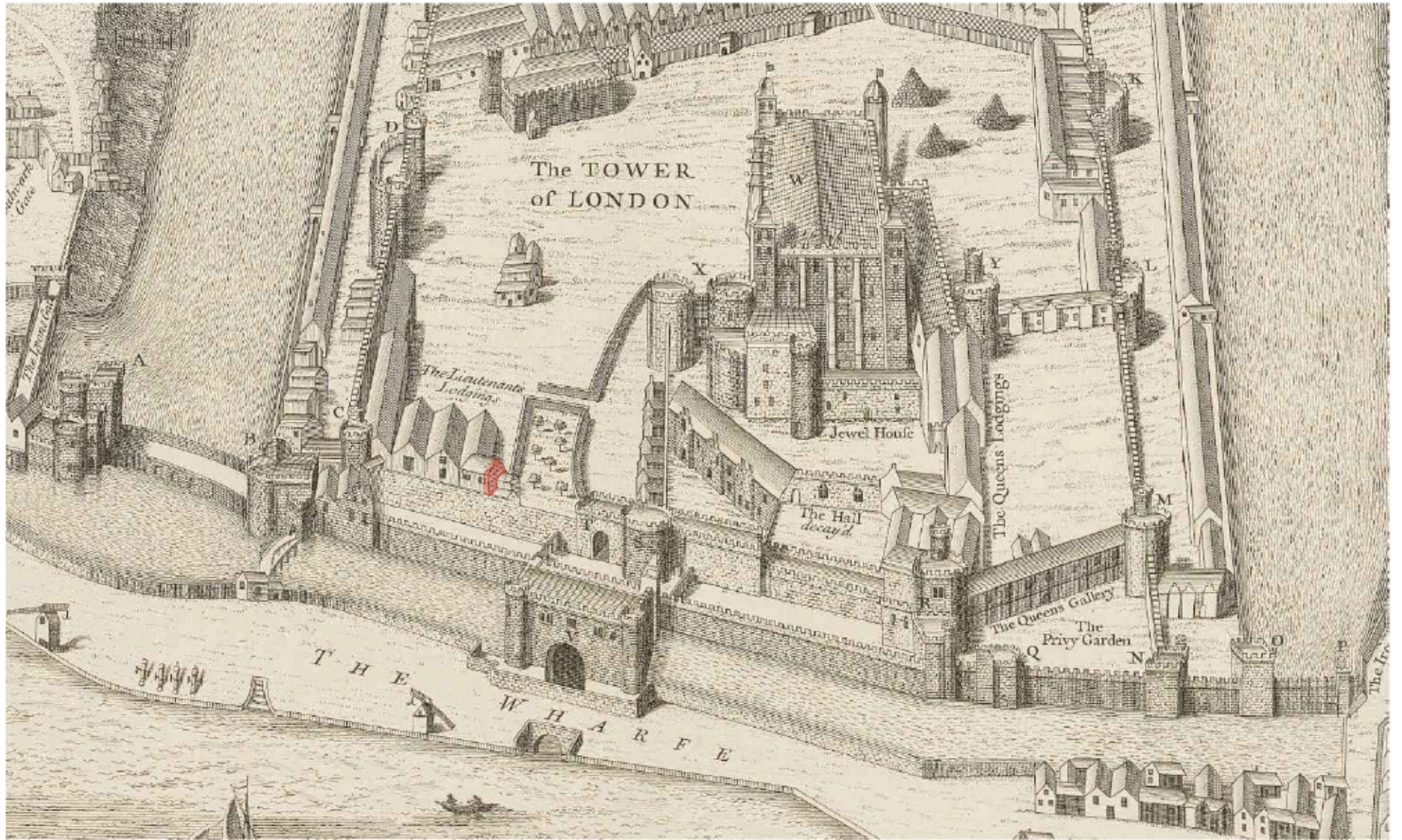


Figure 4
Copy of Haiward and Gascoyne's Survey of 1597 made for the Society of Antiquaries in 1741
(The Society of Antiquaries of London)
(no scale)



Figure 5
 View of the Tower from the Thames (south) drawn by Wenceslas Hollar in 1637-41
 (British Museum 1859-8-6-389; TNA WORK 5/13 f.20v)
 (no scale)

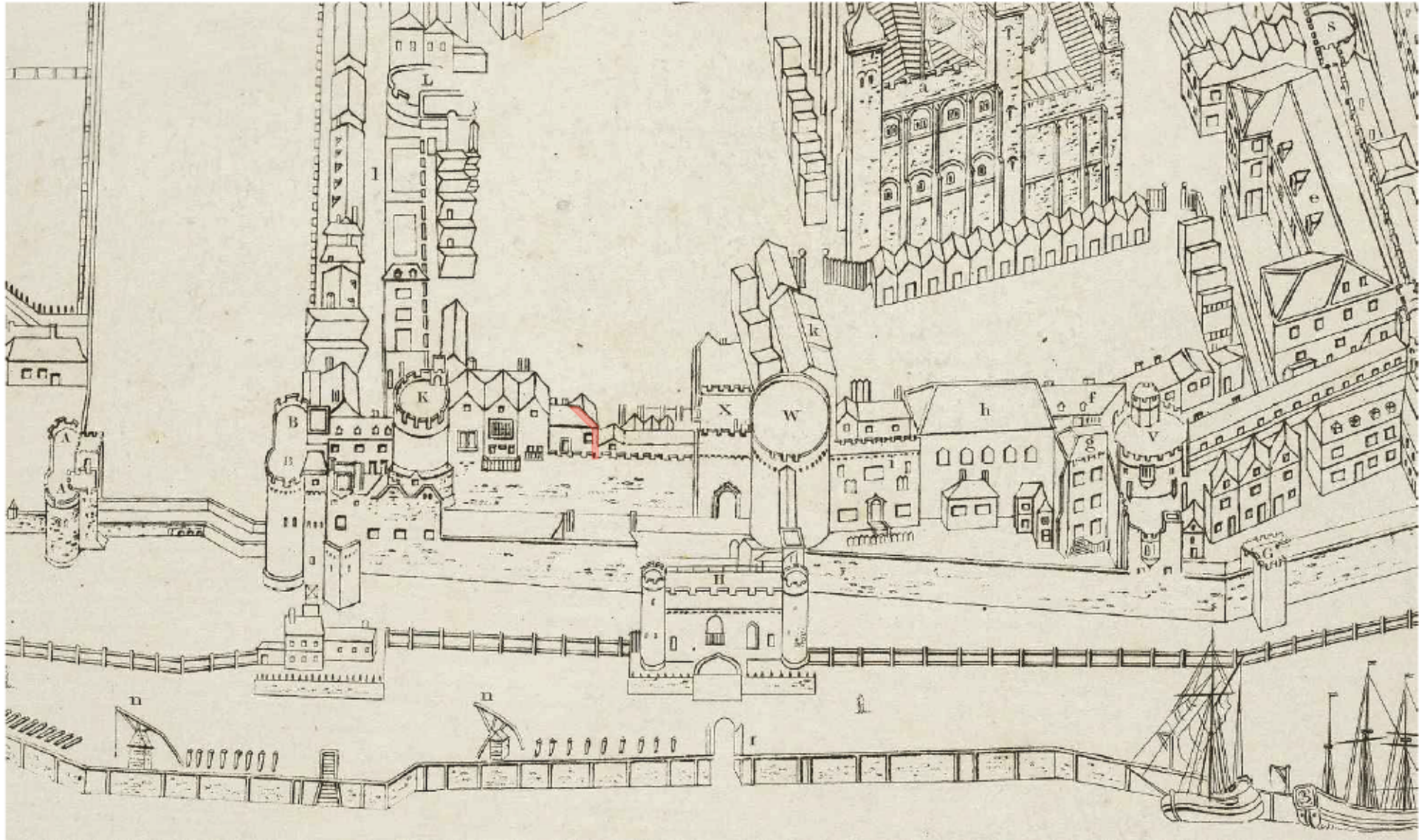
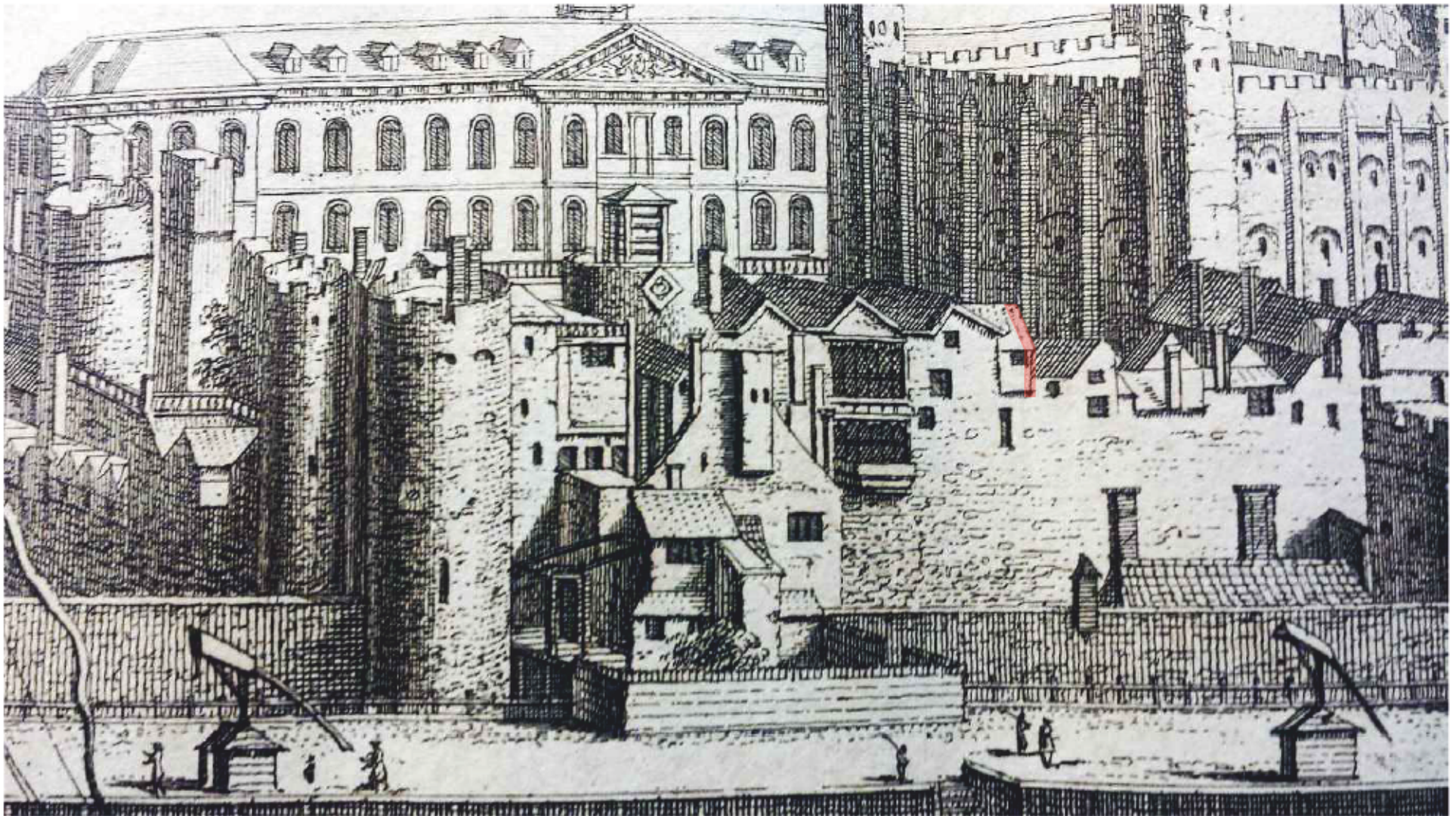


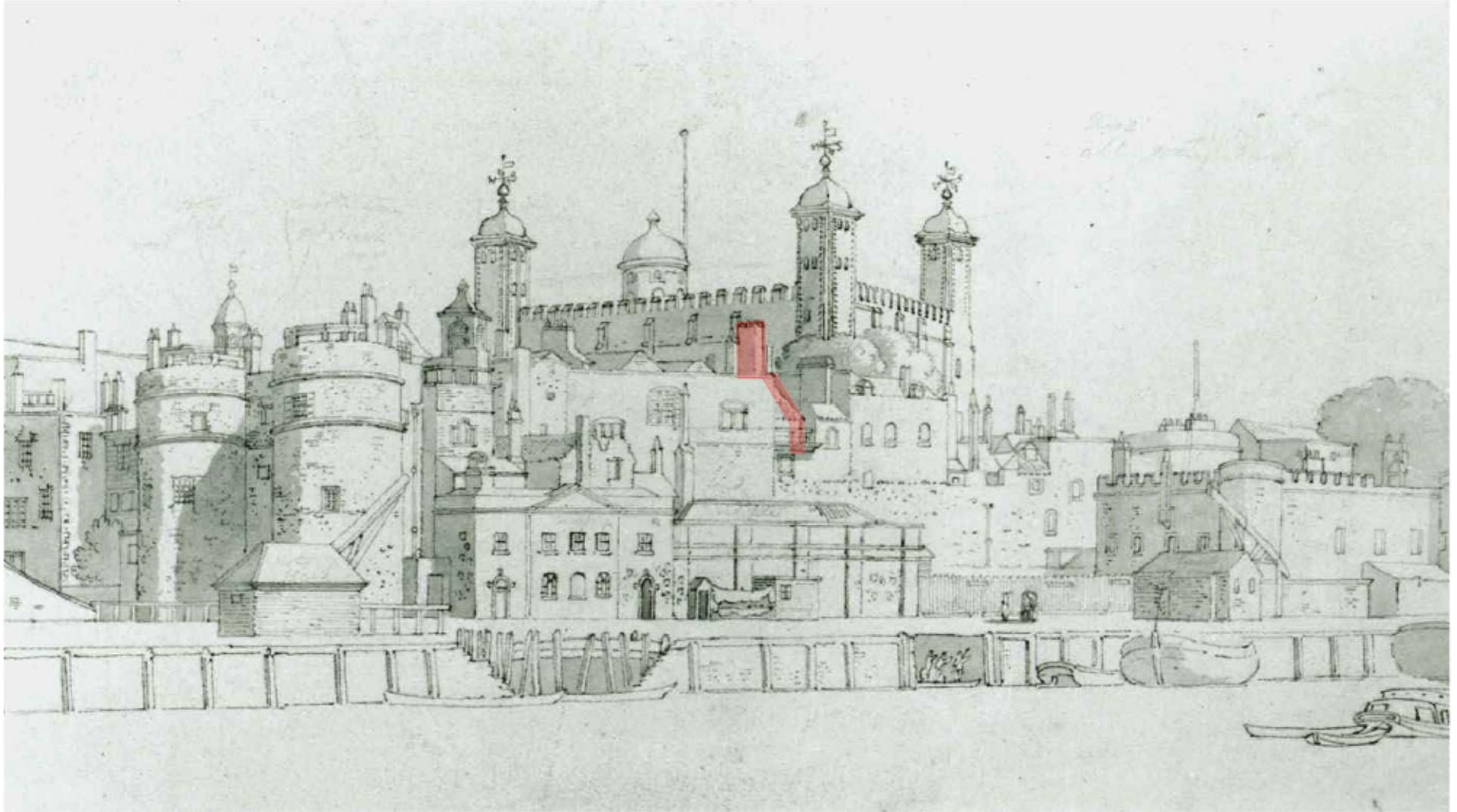
Figure 6
Detail of Holcroft Blood 'birds-eye' view of the Tower, 1688
(no scale)





View of the Queen's House from the south, from William Maitland's History and Survey of London (1756)
(no scale)

Figure 8





THE LIEUTENANT'S LODGINGS.

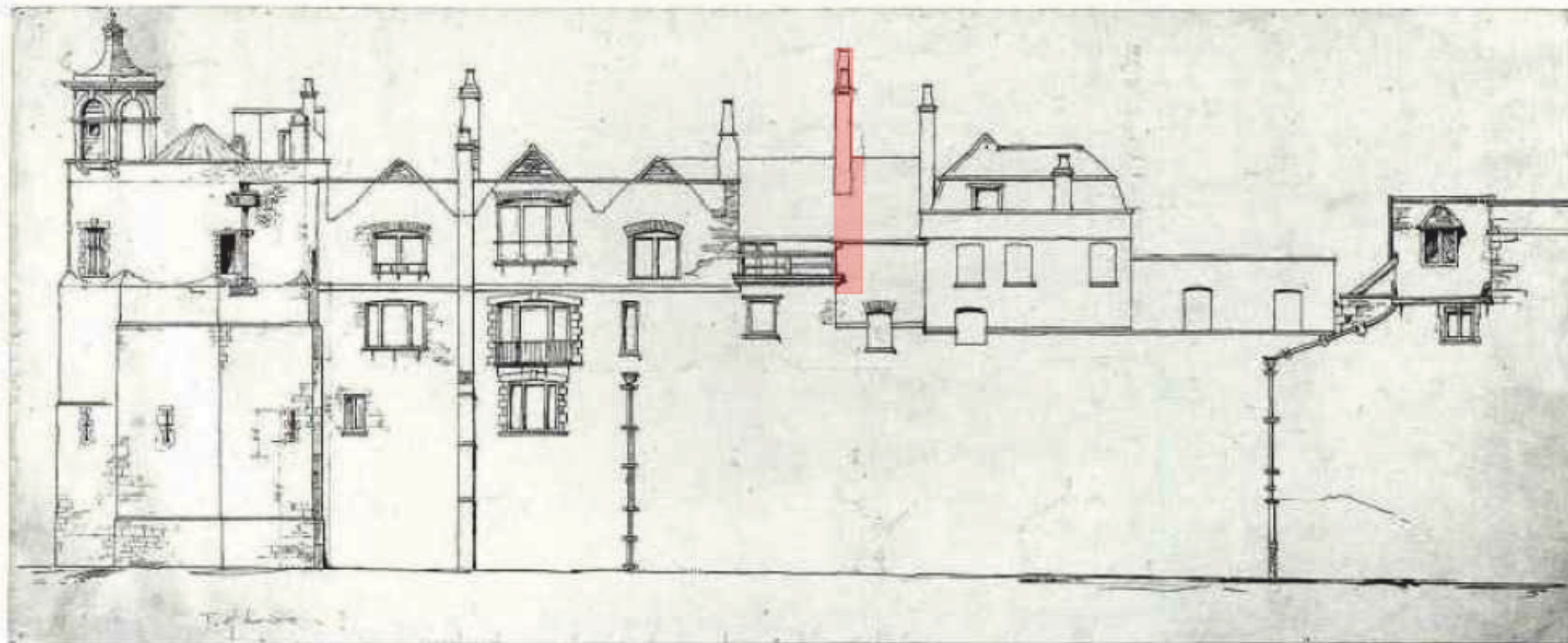


Figure 11
South elevation of the Bell Tower and Inner Curtain Wall c.1860 by Anthony Salvin
(Royal Armouries A2/543)
(no scale)

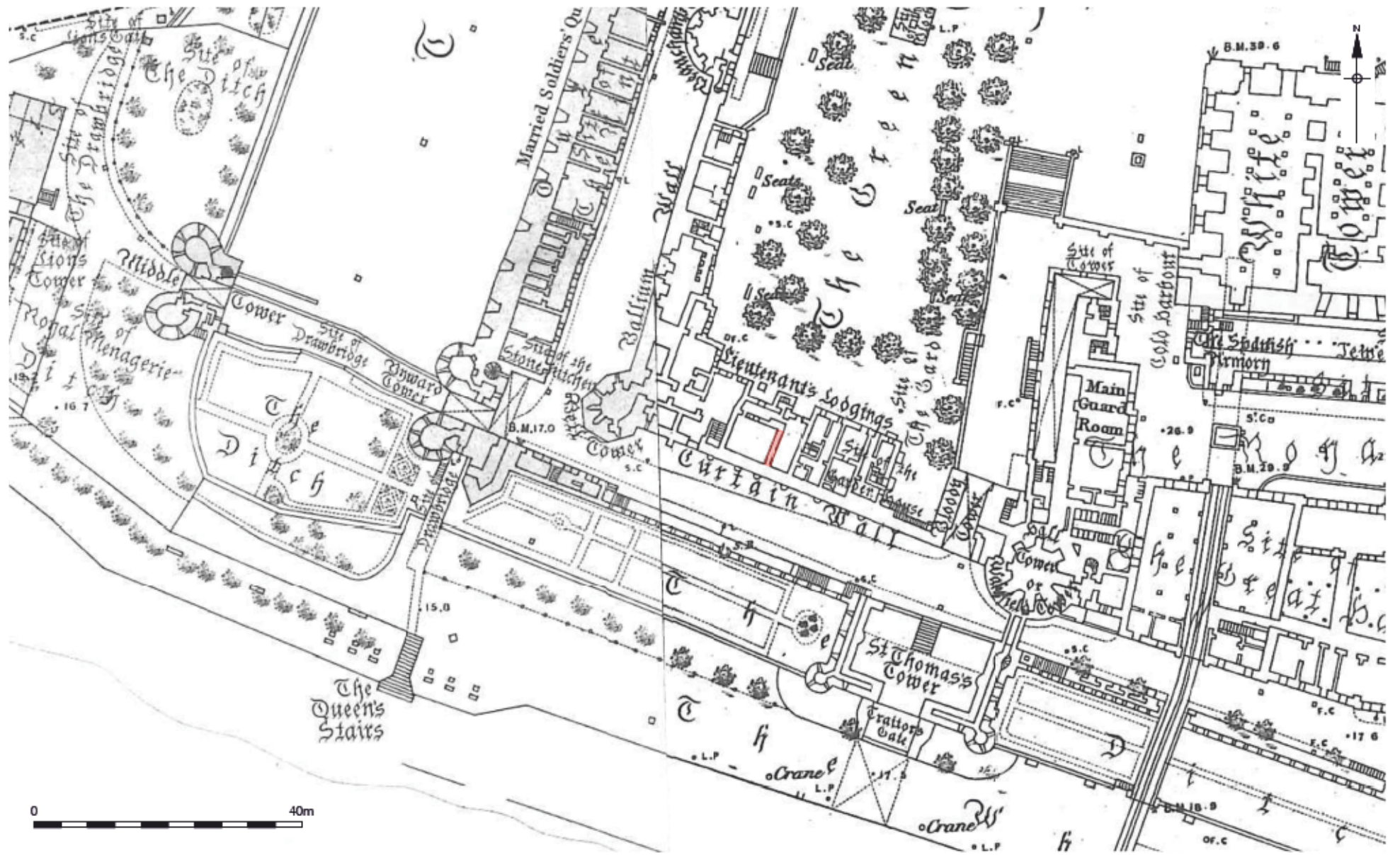


Figure 12
First Edition Ordnance Survey map, 1872-73
1:800 at A4

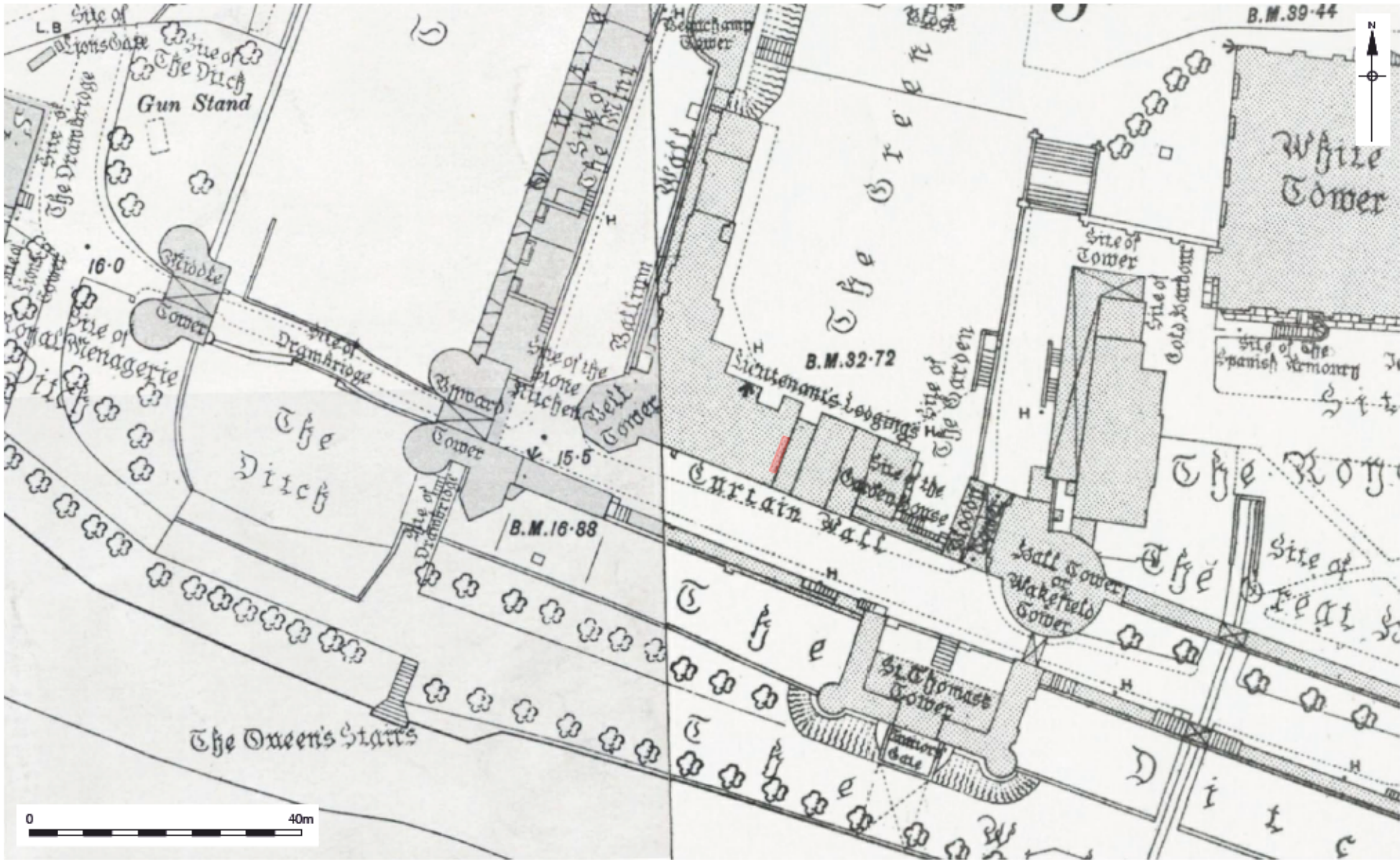
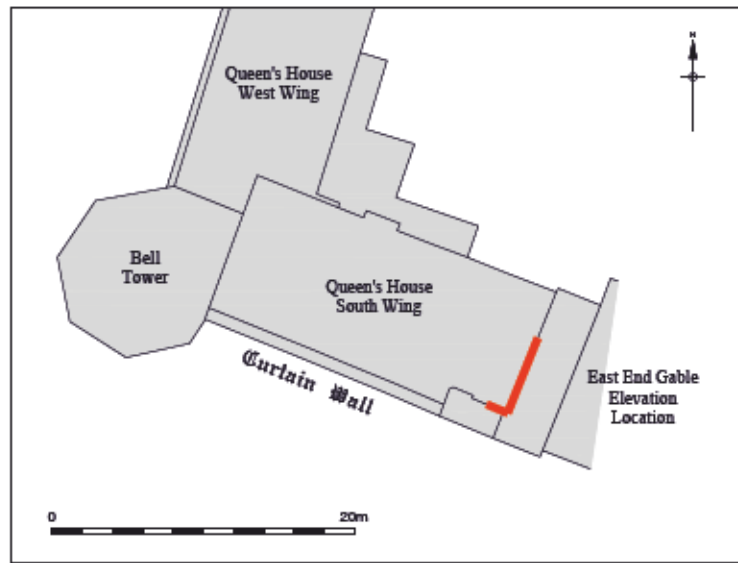
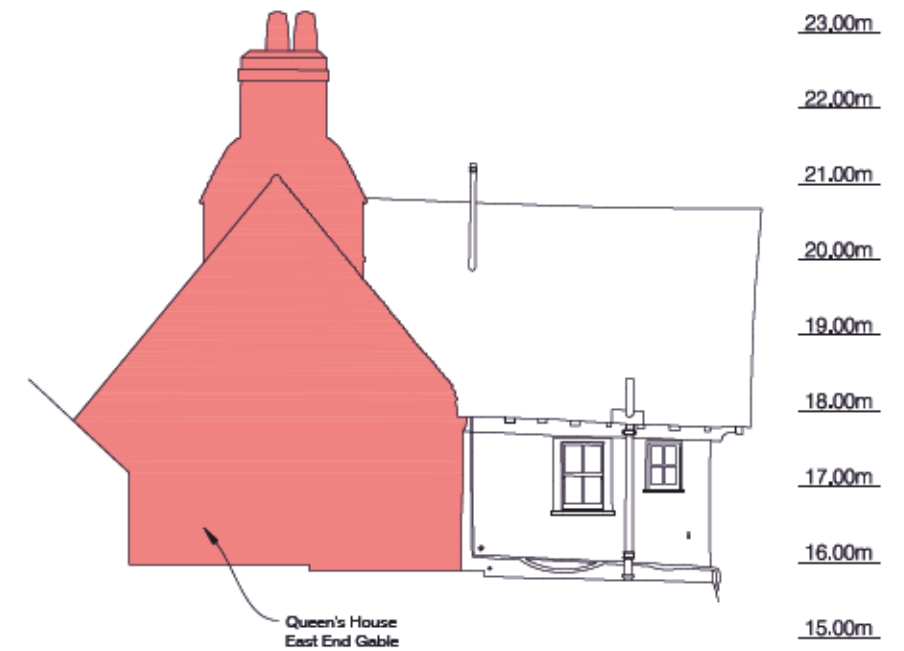


Figure 13
 Second Edition Ordnance Survey map, 1896
 1:800 at A4



24.00m
23.00m
22.00m
21.00m
20.00m
19.00m
18.00m
17.00m
16.00m
15.00m



Historic Building Recording undertaken

0 5m

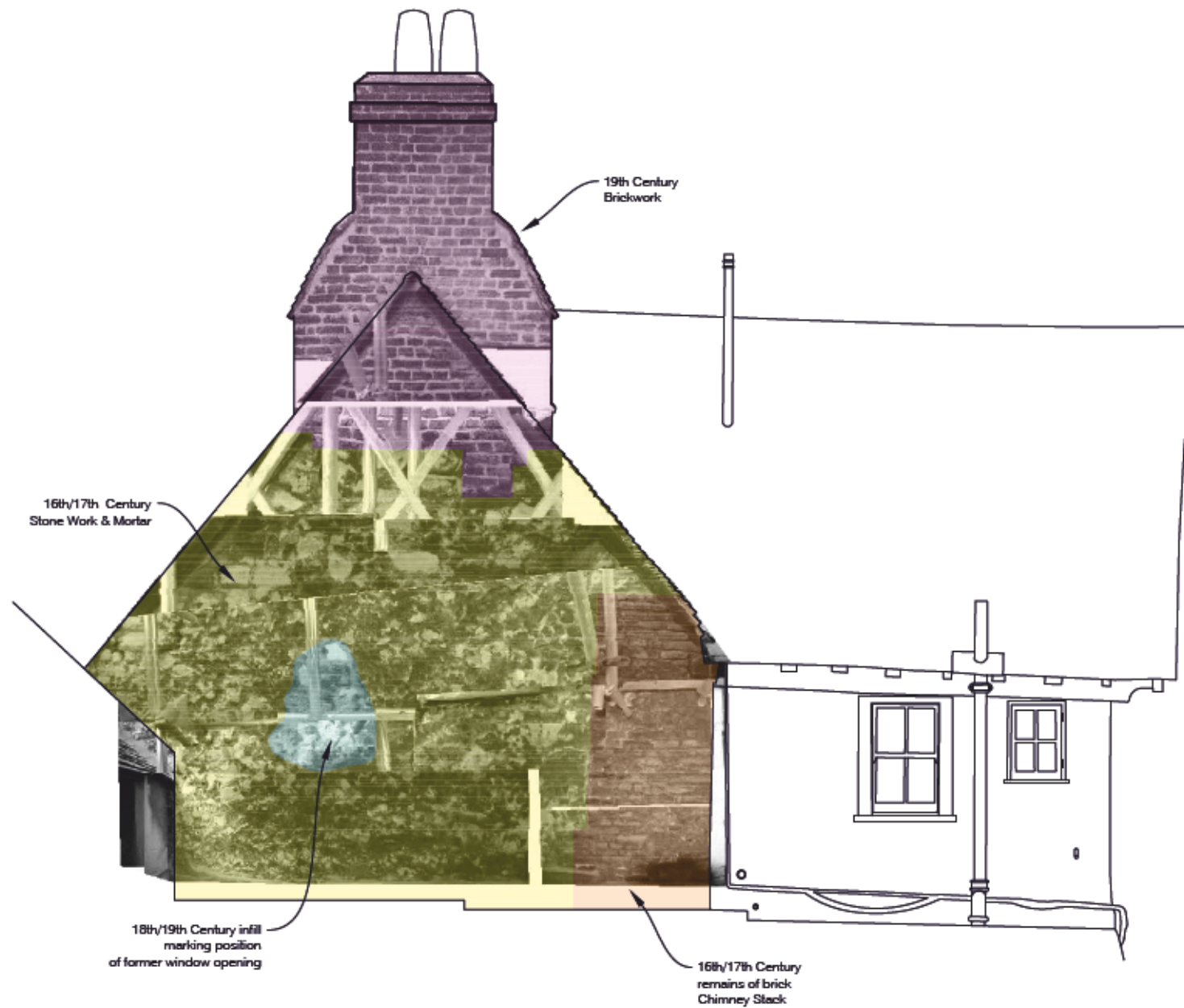
Queen's House Elevations based on drawings TOLICW09; TOLICW10 & TOL/QUH15-A-E-03 supplied by Historic Royal Places

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Figure 14
Elevations of the Queen's House
East End Gable Wall
Elevations - 1:100 and Inset - 1:500 at A3

24.00m
23.00m
22.00m
21.00m
20.00m
19.00m
18.00m
17.00m
16.00m
15.00m

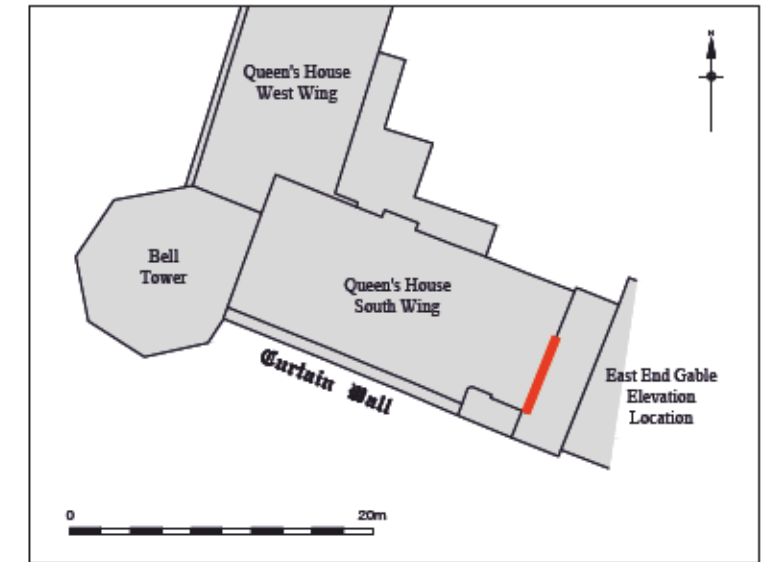


- 16th/17th Century Stone Work & Mortar
- 16th/17th Century Brick Chimney Stack
- 18th/19th Brick infill of former Window Opening
- 19th Century Brick Chimney

0 2m

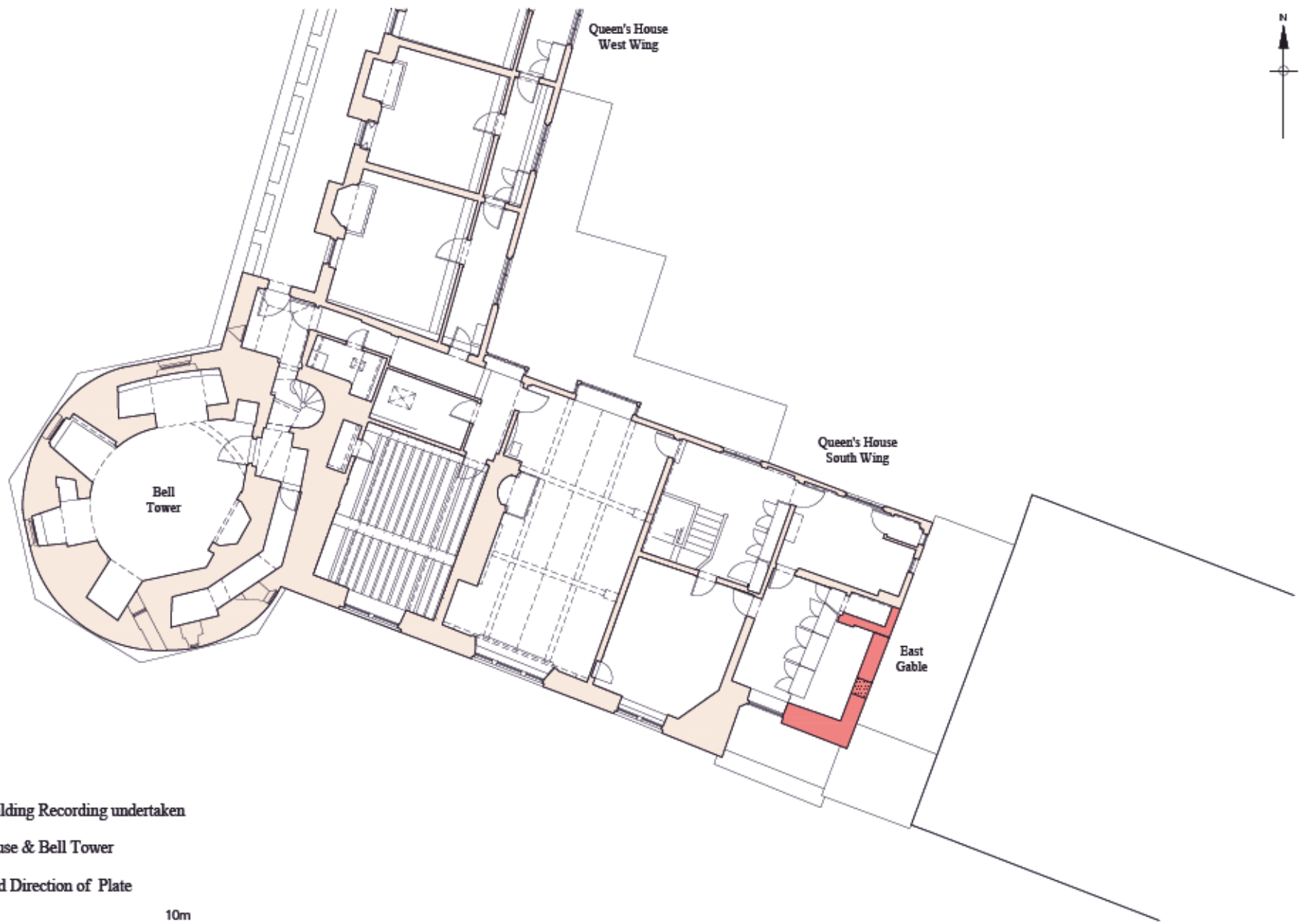
Queen's House Gable Elevation based on drawing TOL/QUH15-A-E-03 supplied by Historic Royal Places
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24.00m
23.00m
22.00m
21.00m
20.00m
19.00m
18.00m
17.00m
16.00m
15.00m



Notes
Photo Mosaic images have been overlaid
onto original elevation drawing but are
not rectified or to scale, for information only

Figure 15
Queen's House East End Gable Wall
Phased Photo Mosaic
Elevation - 1:50 and Inset - 1:500 at A3

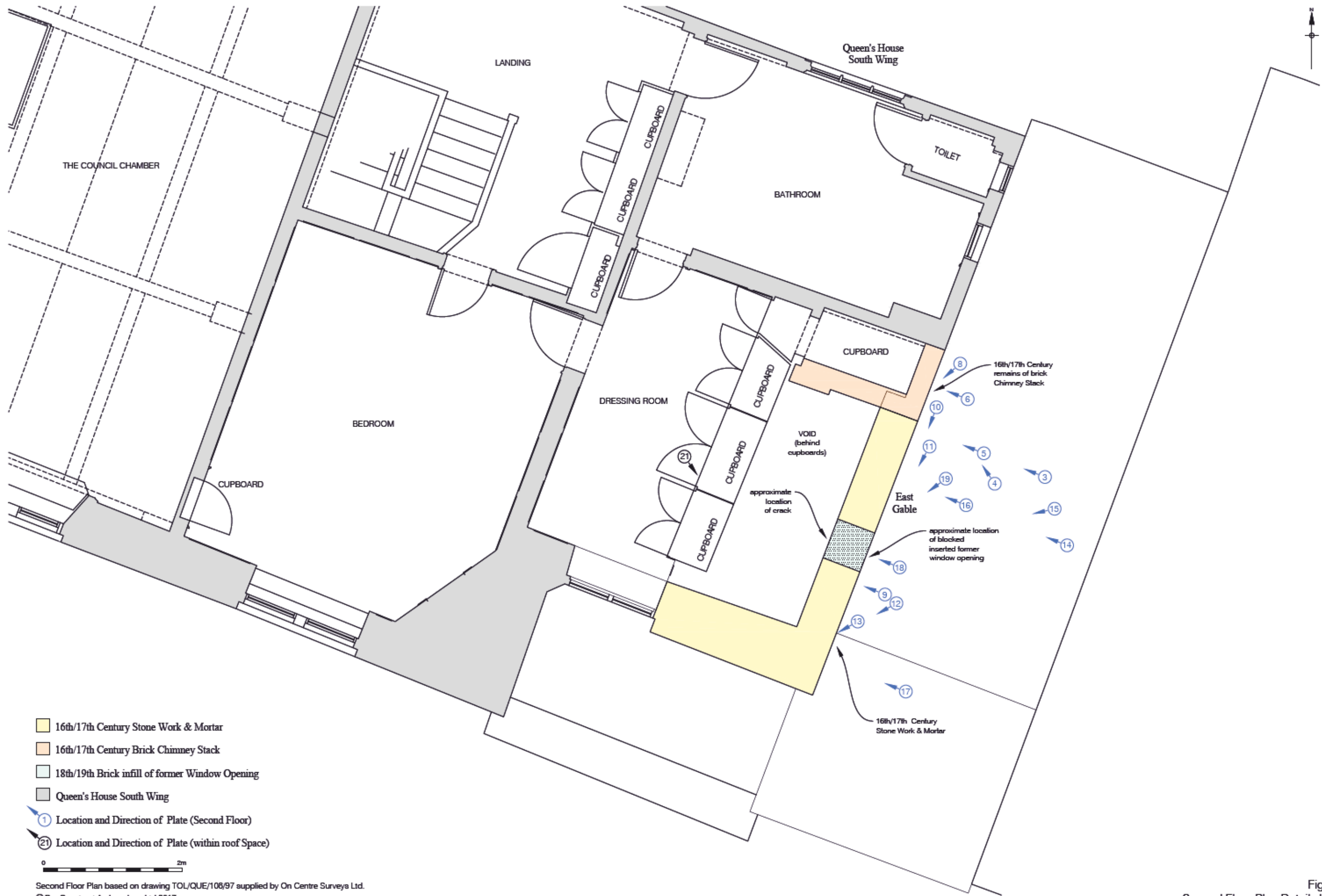


- Historic Building Recording undertaken
- Queen's House & Bell Tower
- 1 Location and Direction of Plate

0 10m

Second Floor Plan based on drawing TOL/QUE/108/97 supplied by On Centre Surveys Ltd.
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Figure 16
 Second Floor Plan of the Queen's House
 1:200 at A4



- 16th/17th Century Stone Work & Mortar
- 16th/17th Century Brick Chimney Stack
- 18th/19th Century Brick infill of former Window Opening
- Queen's House South Wing

- 1 Location and Direction of Plate (Second Floor)
- 21 Location and Direction of Plate (within roof Space)



Second Floor Plan based on drawing TOL/QUE/106/97 supplied by On Centre Surveys Ltd.
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Figure 17
 Second Floor Plan Detail showing
 Phasing & Plate Locations of the East Gable Wall
 1:50 at A3



Plate 1: The Queen's House with the east gable end wall of the Queen's House Kitchen (left), looking south (photograph provided by HRP)



Plate 2: South elevation of the Inner Curtain Wall and Queen's House with the gable roof of the Queen's House Kitchen shown recessed back (centre right), looking north (photograph provided by HRP)



Plate 3: North side of the east gable wall of the Queen's House, looking west



Plate 4: North side of the east gable wall of the Queen's House, looking west



Plate 5: North side of the east gable wall of the Queen's House, looking west



Plate 6: Brick from the north side of the east gable wall of the Queen's House, looking west



Plate 7: Tudor/Stuart brick from the north side of the east gable wall of the Queen's House



Plate 8: North side of the east gable wall of the Queen's House from the lower scaffold level, looking south-west



Plate 9: Lower part of the east gable wall of the Queen's House from the lower scaffold level, looking west



Plate 10: Lower part of the east gable wall of the Queen's House from the lower scaffold level, looking south



Plate 11: Lower part of the east gable wall of the Queen's House from the lower scaffold level, looking south-west



Plate 12: South end of the lower part of the east gable wall of the Queen's House from the lower scaffold level, looking south-west



Plate 13: South end of the lower part of the east gable wall of the Queen's House from the lower scaffold level, looking south-west



Plate 14: East gable wall of the Queen's House, looking south-west



Plate 15: East gable wall of the Queen's House, looking south-west



Plate 16: East gable wall of the Queen's House, looking west



Plate 17: South end of the east gable wall of the Queen's House, looking west



Plate 18: Infilled window in the east gable wall of the Queen's House, looking west



Plate 19: Void marking the position of a former window in the east gable wall of the Queen's House, looking south-west



Plate 20: Ex-situ medieval Reigate stone engaged column from the infill of the former small window in the east gable wall of the Queen's House



Plate 21: The east gable end wall of the Queen's House Kitchen (left), looking south-east from the roof space (photograph provided by HRP)

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