

Northern Estate Programme

Norman Shaw North Standalone - Written Scheme of Investigation March 2021

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1 Introduction

1.1 Project background

- 1.1.1 This Written Scheme of Investigation (or WSI) for a Stage 1 archaeological evaluation on the Norman Shaw North (NSN standalone) site has been produced by MOLA on behalf of the Corporate Officer of the House of Commons.
- 1.1.2 The Norman Shaw North Standalone site is bounded to the north by Curtis Green, to the east by Victoria Embankment, to the south by Norman Shaw South and Commissioners' Yard, and to the west by Richmond House. The site contains the late 19th century Grade I listed Norman Shaw North building, access to the Whitehall Police Station building to the north, and a portion of Derby Gate to the south. The centre of the site lies at National Grid reference 530266 179810. The site Modern pavement level near to the site lies at c.7.4m OD.
- 1.1.3 The description of development for the standalone proposals is:

"Full planning consent for the refurbishment of Norman Shaw North including the installation of a glazed roof covering to the internal courtyard, to provide further accommodation for parliamentary uses (Sui Generis); installation of chillers at ground level adjacent to the northern elevation; basement piling; alterations to the courtyard eaves to create a roof access gallery; alteration of the northern elevation; alteration of north western corner stepped plinth; alteration to Laundry Road landscape and levels to provide accessibility improvements; and crane gantry screw piling located in Commissioners' Yard.

Listed Building Consent for the internal and external refurbishment, including installation of new building services and rooftop repairs and reconfiguration including rooftop louvres and reconstruction of chimneys; courtyard roof fixings; secondary glazing; and interiors; alterations to existing openings and basement vaults; and associated works including temporary construction works."

- 1.1.4 This WSI is submitted as a supporting document for the application for full planning permission and listed building consent, and is provided on the basis that it would remove the need for a precommencement part of an archaeological condition.
- 1.1.5 The potential archaeological interest on the site is for prehistoric, Roman and early medieval remains in areas of former river channels and intertidal foreshore, potentially also including waterlogged organic or timber remains, 13th-14th century reclamation deposits, medieval and post-medieval buildings and waterfront structures and remains associated with the creation of the mid-19th century Victoria Embankment, and remains associated with the 19th century National Opera Theatre.
- 1.1.6 The purpose of archaeological evaluation as defined by the Chartered Institute for Archaeologists is to 'determine, as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices' (CIFA, 2014). The results of the evaluation will inform the construction design and allow the Project Team and Local Planning Authority to identify an appropriate mitigation strategy for any archaeological remains that would be affected by the development. Should any archaeological mitigation be necessary, an additional written scheme of investigation will be prepared and submitted for approval, specifying the archaeological works and covering fieldwork, post-excavation analysis, publication and archiving.
- 1.1.7 The Stage 1 evaluation works consist of evaluation trenches excavated internally at basement level and geoarchaeological boreholes around the perimeter of the building, as detailed in Section 3. The

- Stage 1 evaluation trenches and boreholes will not occur until the building has been vacated. A watching brief will also be carried out on the piling for the crane gantry, and these works are covered in a separate WSI (MOLA dated 27/01/2021) appended to the back of this WSI. MOLA will be working with an Attendance Contractor who will undertake the trench excavations under MOLA's supervision.
- 1.1.8 The results of the Stage 1 evaluation will be set out in a report to be issued within six weeks of completing the evaluation fieldwork on the Norman Shaw North Standalone site. The Stage 1 evaluation report will also include consideration of the results of the geotechnical watching brief.
- 1.1.9 If significant archaeological remains are identified in the Stage 1 evaluation trenches, a Stage 2 WSI outlining a programme of archaeological mitigation work will be prepared for agreement of Historic England's Greater London Archaeological Advisory Service (GLAAS). All works will be in accordance with procedures set out in the Overarching Written Scheme of Investigation (OAWSI) for the Northern Estate proposals.
- 1.1.10 The site archive for all the Norman Shaw North will be deposited with a suitable archaeological archive within 12 months of completing all archaeological works on the Norman Shaw site.
- 1.1.11 This document sets out the methodologies (including Health & Safety) which will be followed during the excavation of the evaluation trenches and during the post-excavation analysis and reporting stages. These will follow the Standards and Code of Practice laid down by the Chartered Institute for Archaeologists (CIFA 2014), and Historic England Centre for Archaeology Guidelines where appropriate.

Other relevant documents include:

- the Norman Shaw North Standalone Archaeological Statement (00NSN-2131-MLA-XX-XX-T-XX-RG-10344) March 2021
- Norman Shaw North Envelope Works watching brief WSI January 2021
- The Addendum to the NEP Archaeological Desk-Based Assessments (000NE-2131-MLA-XX-XX-XX-XX-RG-00001). The archaeological survival potential map, hydrology plans and the modelled early Holocene surface plan has been included in the secure appendices March 2020

Rationale

- 1.1.12 An earlier version of this WSI was submitted to GLAAS detailing a different scope of archaeological investigations was submitted in September 2020. Since the initial WSI was submitted the proposal for NSN has changed. The previous proposal involved ground reduction across the entire basement. The new proposal will involve ground reduction in targeted specific areas within the basement. This will minimise the overall impact of the development and reduce the number of trenches required. Piling is proposed in some areas of the basement to provide additional support to specific areas. Careful consideration has gone into the locations and feasibility of carrying out the archaeological investigations. There are many logistical constraints within the basement, and not all areas are accessible.
- 1.1.13 A programme of geoarchaeological boreholes will be carried out around the perimeter of the site to inform research and develop an overall better understanding of geoarchaeological deposits across the site. The south of the site was considered, however a recent watching brief on a deep excavation in Commissioners' Yard has already provided us with useful information for that area. A summary of the results from that watching brief has been included in section 1.3.

Building recording

1.1.14 MOLA will make an archaeological record of exposed parts of the building below ground level that were constructed as subterranean elements of the building and not designed to be seen either

internally of from outside the building. This may include structural elements such as foundations or associated features such as drainage.

1.1.15 Donald Insall Associates will record internal parts of the building exposed during development works above basement slab level and external parts of the building, originally designed to be visible, that are re-exposed during development works.

Public Engagement

1.1.16 We will work alongside Parliament communications team to develop a strategy for the archaeological public engagement. A statement on the public engagement for the entire Northern Estate Programme was detailed in an Addendum to the NEP Archaeological Desk-Based Assessments (000NE-2131-MLA-XX-XX-XX-RG-00001) and should be referred to.

1.2 Planning and legislative framework

1.2.1 The Planning and legislative background to the site has been adequately summarised in the previous Norman Shaw North Standalone Archaeological Statement, that was submitted in March 2021.

1.3 Archaeological background

1.3.1 A detailed description of the geology, archaeology and history of the site was provided in the Norman Shaw North Archaeological Statement (Northern Estate Programme 2019a) and is reproduced here:

Overview of past investigations

- 1.3.2 An archaeological investigation has been carried out in the site (HEA 1a). This comprised limited trial trenching in the 1960s by English Heritage, and a further phase in the early 1980s by ILAU (Inner London Archaeology Unit). These investigations showed the site was prone to flooding for much of its history, but was later used as for dumping in the medieval period, before being built up in the 17th and 18th centuries. Within the flood deposits, evidence of an Iron Age timber structure was noted.
- 1.3.3 In the immediate vicinity of the site there are a further four investigations (HEA 2, 3, 4 and 5). The investigation at Norman Shaw North uncovered modern made ground only (HEA 2), and there is no further information contained in the MOL Archaeological Archive for the investigation at the River Wall in the 1960s (HEA 5). An evaluation and geoarchaeological evaluation carried out at the New Scotland Yard in 2014 recorded alluvial deposits relating to the mouth of the Tyburn, underlying thick made ground deposits and evidence of later Post-medieval development (HEA 3).
- 1.3.4 Within the rest of the study area there are a further 21 investigations, comprising watching briefs, evaluations and excavations. The results of these investigations, along with other known sites and finds within the study area, are discussed by period, below. The date ranges below are approximate.

Recent archaeological investigations in response to the NEP development

1.3.5 A watching brief (site code PIA18) on the excavation of 12 geotechnical trial pits taken in Laundry Road and Commissioners' Yard was undertaken by MOLA in 2018. Investigators identified the remains of Victorian foundations, thought to belong to the abandoned National Opera House in two of the trenches, TT7 and the Gate Foundation Trench. The rest of the observed test pits and trial trenches encountered only 20th century made ground and modern services. The base of these foundations was not seen in either trench (MOLA 2018). A further watching brief for an additional 22 geotechnical trial pits were taken in the basement levels of Norman Shaw North and 1 Derby Gate was undertaken by MOLA between 19 February and 23 May 2019. Investigators identified the foundations of late 19th century buildings thought to belong to the National Opera Building in six of the trial pits in Norman

Shaw North and in one trench at 1 Derby Gate. The base of these foundations was not reached and natural ground was not encountered in any of the trial trenches (MOLA 2019).

1.3.6 A watching brief on excavation of a utility trench located on access road between Norman Shaw North and Norman Shaw South buildings was carried out by MOLA between 2 and 25 of February 2021. The trench measured c 4.6m square and was excavated to a maximum depth of 6m bgl to - 1m OD. The top of the sewer was located 4.75m bgl, at c 0.25m OD. The majority of the trench lay within the construction cut for the sewer and was occupied by backfill deposits comprising compacted layers of silty clay and crushed brick and mortar.

There was an area of grey clay alluvium located at the northern section of the trench from which several timber piles were recovered. The top of the deposit lay at 0.3m OD (4.7m bgl). As it was not possible to enter the trench at the time of excavation, it cannot be confirmed whether the alluvium and timbers were in situ deposits behind the construction cut of the sewer, or a dump of redeposited material within the sewer trench. No structural remains of the 1875 National Opera building were observed.

Prehistoric period (800,000 BC-AD 43)

- 1.3.7 The Lower (800,000–250,000 BC) and Middle (250,000–40,000 BC) Palaeolithic saw alternating warm and cold phases and intermittent perhaps seasonal occupation. During the Upper Palaeolithic (40,000–10,000 BC), after the last glacial maximum, and in particular after around 13,000 BC, further climate warming took place and the environments changed from steppe-tundra to birch and pine woodland. It is probably at this time that England saw continuous occupation. Erosion has removed much of the Palaeolithic land surfaces and finds are typically residual. There are no known finds dated to this period within the study area.
- 1.3.8 The Mesolithic hunter-gatherer communities of the postglacial period (10,000–4000 BC) inhabited a still largely wooded environment. The river valleys and coast would have been favoured in providing a predictable source of food (from hunting and fishing) and water, as well as a means of transport and communication. Evidence of activity is characterised by flint tools rather than structural remains. There have been chance finds dated to this period within the study area: a flint tool from Parliament Street, 1150m south-west of the site (HEA 31) and a deer antler pick from within a former channel 85m south-east of the site (HEA 42).
- 1.3.9 The Neolithic (40001–2000 BC), Bronze Age (2000–600 BC) and Iron Age (600 BC–AD 43) are traditionally seen as the time of technological change, settled communities and the construction of communal monuments. Farming was established and forest cleared for cultivation. An expanding population put pressure on available resources and necessitated the utilisation of previously marginal land. Sand and gravel 'high' areas such as Thorney would have remained as drier land when the surrounding area became waterlogged due to rising river levels, and together with their marshy margins are key for the recovery of evidence of prehistoric activity. Reeds or willow would be gathered for fuel or basket-making, and fowling and fishing would have taken place along the riverside; timber walkways or platforms would be constructed in places to give better access to the marshy areas and wicker fish traps may have been used to catch fish on the tide.
- 1.3.10 Part of a Late Bronze Age to Early Iron Age timber structure was recorded during the archaeological watching brief on the site (HEA 1a). It survived to around –0.7m OD (5.2mbgl). The laminated sand and clay deposits beneath it could indicate that it was situated at the edge of a creek or inlet and was therefore possibly part of a riverside revetment or quay. A base-plate of alder rested on a peat deposit at –1.4m OD; it was aligned north-south and about 0.2m wide, tapering to the south. Set vertically into it was a 0.6m length of a post c 0.1m wide made from an unsquared piece of wood, the bottom of which was wedge-shaped. About 0.8m from this the base plate was briefly interrupted, as if for the seating of another post which had been removed. The structure was buried beneath a deep deposit of gleyed silty clay (Andrews and Merriman 1986, 18–20).

- 1.3.11 Some isolated later prehistoric remains have also been recorded in the study area. In the 1960s, excavations at the Treasury Building and 10 Downing Street, 175m west of the site (HEA 49) found a polished Neolithic flint axe head on the remains of the floor of a Saxon hut. The GLHER notes the chance find of a Neolithic stone axe (HEA 35), in Richmond Terrace, immediately north of the site. A possible Late Iron Age pottery sherd was recorded during an investigation at the Women in World War II Memorial (HEA 26), 90m north-west of the site.
- 1.3.12 The site was probably in the mouth of the Tyburn, waterlogged and probably permanently submerged, and unsuitable for settlement, but a timber structure has been recorded to the west, and jetties, revetments or other features may have been nearby, possibly extending into the site. Its location at the confluence with the Thames may have been significant in addition to its natural resources as a place of ritual. A large number of metal artefacts and stone axes have been recovered during dredging of the Thames, and many may have been deliberately deposited as votive offerings.

Roman period (AD 43-410)

- 1.3.13 Within approximately a decade of the arrival of the Romans in AD 43, the settlement of *Londinium* had been established on the north bank of the Thames where the City of London now stands, 2.5km north-east of the site. It quickly became a major commercial centre and port; it also formed the hub of the Roman road system in Britain which was key for both military and commercial traffic. Small settlements, typically located along the major roads, acted as both producers and markets for the town (MoLAS 2000, 150).
- 1.3.14 It is probable that the Roman road from the Kent coast via Canterbury and Rochester at one time crossed the Thames via a ford at what is now Lambeth to connect with another on the line of Edgware Road. There may therefore have been a crossing at or near Thorney Island, with a Roman road passing c 320m to the south-west of the site, although this has not been determined archaeologically.
- 1.3.15 A small settlement may have existed in the vicinity of St Martin-in-the-Fields, 625m north of the site, outside the study area. Excavations in this area have uncovered evidence of a tile kiln and structure as well as burials dating to the c 3rd century AD. This has been interpreted as a small religious or ritual site.
- 1.3.16 Isolated Roman pottery sherds, which were residual, were recorded during an investigation at the Women in World War II Memorial (HEA 26), 90m north-west of the site. The site would probably have been at or in the channel of the Tyburn at the confluence with the Thames during this period.

Early medieval (Saxon) period (AD 410–1066)

- 1.3.17 Following the withdrawal of the Roman administration from England in the early 5th century AD, Londinium was apparently abandoned. Germanic ('Saxon') settlers arrived from mainland Europe, with occupation in the form of small villages and an economy initially based on agriculture. By the end of the 6th century a number of Anglo-Saxon kingdoms had emerged, and as the ruling families adopted Christianity, endowments of land were made to the church. Landed estates (manors) can be identified from the 7th century onwards; some, as Christianity was widely adopted, with a main 'minster' church and other subsidiary churches or chapels. In the 9th and 10th centuries, the Saxon Minster system began to be replaced by local parochial organisation, with formal areas of land centred on settlements served by a parish church. The trading port of Lundenwic flourished in the area now occupied by Aldwych, the Strand and Covent Garden, 800m north-east of the site (Cowie and Blackmore 2008, xv).
- 1.3.18 In the 7th to 9th centuries, Christianity was widely adopted, alongside the development of royal estates and the endowment of Minsters (religious centres). Westminster is first mentioned in a charter dated to c AD 785, referring to the founding of a religious community dedicated to St Peter on the edge of the Thames, 400m to the south-west of the site: the church became known as the 'West

- Minster' to distinguish it from St Paul's Cathedral (VCH London i, 433–57). The site lay within the endowment of the community.
- 1.3.19 In the early 11th century, King Cnut constructed the Royal Palace of Westminster on the eastern side of Thorney Island, 400m to the south of the site. The palace burnt down c 1030 and was rebuilt by King Edward the Confessor (1042–66), who also constructed a large stone church in honour of St Peter the Apostle, consecrated in 1065 (Thomas et al., 2006).
- 1.3.20 Archaeological investigations in 1960–2, centred 170m west of the site (HEA 49) revealed evidence of occupation in the late 8th to mid-9th century, on a spur of high ground to the north of Thorney Island. A succession of timber buildings included a substantial hall, its position midway between *Lundenwic* to the north and the possibly contemporary monastery on Thorney Island to the south, suggest high or even royal status, and its abandonment may be connected with Danish raids of the late 9th century (Cowie and Blackmore 2008, 90–100).
- 1.3.21 Throughout this period the site would have probably still been in the channel of the Tyburn or in increasingly marshy ground. It is possible that fish traps were placed in the channel as these have been found elsewhere along this stretch of the Thames, typically associated with a tributary, for example at the mouth of Chelsea Creek 4.6km to the south-west, and on the opposite side of the Thames at the mouth of what was the Battersea Channel 2.4km to the south.

Later medieval period (AD 1066-1485)

- 1.3.22 The Domesday Book (1086) entry for the manor of Westminster includes St Peter's Church and the surrounding village, meadow, pasture and woodland.
- 1.3.23 Westminster Palace, c 200–400m to the south of the edge of the site, became the main residence of the English monarchy and the seat of the Court during this period (Weinreb and Hibbert 2008, 617). In 1099, Westminster Hall was added at the northern end of the Palace (Thomas et al 2006, 49) and was subsequently used to administer royal justice. Ecclesiastical organisation had by this period generally formalised into parishes, areas of land centred on settlements served by a minister and a parish church. The presence of both the abbey and palace would have encouraged a growth of population in the area, and the parish church of St Margaret was built to the north of the Abbey in the mid-11th century to provide a place of public worship (Weinreb and Hibbert 2008, 783).
- 1.3.24 Much of Thorney Island, 120m to the south of the site, and the surrounding low-lying ground would in the early part of the period still have been prone to flooding and occasionally boats were used to move across the island. On lower-lying ground, successive attempts were made to reclaim the land by digging drainage ditches and dumping soil (Thomas 1993, 12).
- 1.3.25 By 1180, the abbey precinct had been enclosed by boundary walls and a ditch. The precinct covered an area of 14 acres and was divided into private areas of the abbey to the south and the public space to the north. The abbey precinct came to be known as the Sanctuary, after the abbey's privilege of sanctuary, and included the parish Church of St Margaret to the south of Parliament Square, the belfry to the west, and the houses for the sanctuary men (Honeybourne 1932 quoted in Thomas 1993, 71). There were probably a number of ancillary buildings in this part of the precinct, although the location and extent of these are not known.
- 1.3.26 Research into the history of the area, carried out at the time of the 1980 investigation on the site (HEA 1a), included a reconstruction of the area in the later medieval period by Dr Gervase Rosser held with the site archive for RCH80 in the MOL Archaeological Archive (Fig 5). The predicted edge of the Thames is shown to be approximately bordering the eastern edge of the site, although it is not specified whether this was the water line or a revetment. The site itself appears to be occupied by 'gardens' and a small complex of buildings labelled "Richmond Ter. Mews".

- 1.3.27 In the 13th century, land on the east side of King Street, between Cannon Row (immediately south of the site) and Endive Lane (200m north of the site, in the vicinity of Horse Guards Avenue) was given by King Henry III to his brother Richard of Cornwall (briefly Holy Roman Emperor). He built a house (HEA 1g, within the south of the site) on the edge of the 'Mersflete' with gardens that came down to a landing stage on the Thames. Richard's eldest son Henry gave the land to Westminster Abbey (GLHER ref 081378/00/00). Although the 'Mersflete' often refers to a branch of the Tyburn further south it may also have been used for the section close to the site.
- 1.3.28 The GLHER notes the first reference to Whitehall, 180m north of the site, in 1305 when Joan, 'wife of the late William Charles' held a house set back from the riverfront, 125m to the north-west of the site, along with 32 acres (GLHER ref: 081384).
- 1.3.29 Parliament began to meet regularly at Westminster from the reign of Edward I (1272–1307). Edward I began the two-storeyed St Stephen's Chapel, which was completed in the reign of Edward III (1312–77). Edward III also built a high clock tower in the courtyard to the north of the Great Hall and the Jewel Tower at the south-west corner of the Westminster Palace (Bradley and Pevsner 1994, 229–32).
- 1.3.30 Land reclamation in the 14th century extended the grounds occupied by the royal residence, which by now occupied an area of 13.5 acres. The palace included an outer court (or New Palace Yard), a middle court (or Green Yard), and St Stephen's Court. By the 15th century, the area was crowded with businesses, with residential properties and shops even within the precinct of Westminster Abbey (Thomas et al 2006). Archaeological investigations to the south of the study area have found evidence of continued silting at the edge of the Thames, 125m south-east of the site (HEA 18) and 140m south of the site (HEA 14), where reclamation took place at the end of the period by drainage and the use of consolidation deposits.
- 1.3.31 The extent of riverfront reclamation in this period is uncertain. The site was possibly partly on land and partly in the Thames. There is a possibility that structures such as jetties or fish traps may have extended into the site, and there may have been early revetments constructed. The archaeological watching brief on the site (HEA 1a), noted evidence that the area of the site was marginal land at the edge of Thorney Island; until the construction of a riverside wall in the later 16th-century it was frequently flooded despite late-medieval attempts at reclamation, and used for dumping rubbish. In the west of the area investigated, close to Whitehall, made ground was recorded to c –1.0m OD (5.5m below street level), where natural clays and peats were overlain by a mixed layer of clay and organic material including large quantities of leather scraps, and also household refuse such as bone, and mussel and other shells, dated to the 15th or 16th century (Andrews and Merriman 1986, 19).

Post-medieval period (AD 1485-present)

- 1.3.32 The Thames riverbank adjacent to the site became developed as part of the expanding royal and government centre of Westminster during the early post-medieval period including the establishment of Whitehall Palace, which was the main residence of the English monarchs in London from 1530 until 1698 when most of its structures were destroyed by fire (see below).
- 1.3.33 Just outside the study area to the north, York Place, the Archbishop of York's London residence since the 13th century, was much extended and developed in the 1520s by Cardinal Wolsey, Archbishop of York 1514-29. The Grade I listed MOD building immediately north of the site includes a vaulted undercroft wine cellar of c 1530, originally part of York Place.
- 1.3.34 On Wolsey's fall from power York Place was taken by King Henry VIII and renamed Whitehall Palace. An extensive rebuilding programme was carried out, with new gardens and orchards laid out and additional land acquired to the west, and two new sets of stairs were constructed to provide access to the river. Henry VIII died at Whitehall in 1547 but Whitehall Palace continued as a royal residence until the end of the 17th century, when William and Mary moved to Kensington Palace (Weinreb et al 2008, 1020, 1036). Whitehall Palace extended across much of the northern part of the study area,

- approximately as far south as the site and Richmond Terrace. The site lay in an open area, the Bowling Green, just to the south of the extensive complex of palace buildings. The southern part of Whitehall Palace included the Stone Gallery, a ground floor gallery which linked the Privy Gallery to the Bowling Green (Survey of London, Vol 13, 41-115).
- 1.3.35 The GLHER includes a number of entries for the palace and its associated features, including gardens and a bastioned river wall. The King's Street Gate, the main road entrance to the Palace from the south, was 110m west of the site (HEA 36).
- 1.3.36 The Thames would have been an important means of transport for the Court, and the private ('Privy') river stairs for the palace (HEA 48) were 80m north of the site. A Grade I listed fragment of reconstructed Tudor riverside terrace wall is 150m north of the site (List entry: 1066636). The projected line of this south towards the site would probably take it through the eastern part of the site
- 1.3.37 A trial pit, dug at Richmond Terrace Mews on the site (HEA 1a), recorded the south-east corner of the orchard where it met the waterfront, with possible Tudor masonry at the base of a river wall. The GLHER and post-medieval maps indicate the site of the mid-16th century Garden Stairs would have been located immediately to the north-east of the site, on Richmond Terrace.
- 1.3.38 The 'Agas' Map of 1562 (Fig 6) shows the site occupied by several structures to the south of the orchard identified in the 1980s watching brief (HEA 1a). These appear to be organised around central courtyards and may represent the mews buildings. In the north-east of the site, a second set of stairs is indicated leading down to the Thames, and structures are shown built on top of the river wall cantilevered over the Thames. The map itself is isometric in nature, and does not show accurately conditions on the site.
- 1.3.39 Norden's map of Westminster of 1593 (Fig 7) shows large discrepancies with the Agas' map. It is more plan than isometric and shows the site in greater detail. Norden's map shows the majority of the site was occupied by the orchard noted above, with a wide river stair along the eastern boundary. In the south of the site, the possible mews buildings are shown.
- 1.3.40 In the mid-17th century the general environment became increasingly developed. Faithorne and Newcourt's map of 1658 (Fig 8) shows the site occupied by several buildings to the south of Whitehall Palace gardens. These buildings are arranged broadly east-west around central courtyard areas. This level of development appears to be short lived, as following the Restoration of the Monarchy in 1660, the land to the south of the privy garden at Whitehall was converted into a bowling green (Survey of London, Vol 13, 41-115).
- 1.3.41 It is possible that the development shown on Faithorne and Newcourt's map is a cartographic error, or that, given its isometric nature; details may be obscured, as Vertue's map of Whitehall Palace from 1670 (Fig 9) shows the northern extent of the site lying within the bowling green to the south of the Privy Garden, and it seems illogical to develop an area and then demolish it for the green. The eastern extent of the site is occupied by the possible bowling pavilion which fronts onto the River Thames with a projecting bay and apse. As the plan only covers the palace, details of the south of the site are not shown.
- 1.3.42 Whitehall Palace was almost entirely destroyed by fire in 1698. Truncated and fragmentary remains of the palace have been recorded in a number of archaeological investigations to the west of the site (HEA 4, 19 and 49). Rocque's map of 1746 (Fig 10) shows that the site is predominantly occupied by buildings at this time, replacing the bowling green. There appears to be a large house occupying the northern portion of the site, although it is unlabelled. Immediately south of this are shown wharves labelled "Tod's Wharf" with "Sand Wharf" to the south above Derby Court. One of these buildings facing onto Parliament Street may be the Grade II-listed 85 Whitehall (HEA 1b), a townhouse built mid-late 18th century, though individual buildings are not specified.

- 1.3.43 Faden's 1813 revision of Horwood's map of 1799 (Fig 11) shows the site is still occupied by wharf buildings. The possible large house shown on Rocque's map is gone, replaced by wharves, and a large plot of empty land in the north-east corner of the site where the house had stood. The wharves shown are unlabelled, but appear to be arranged around "White Hall Timber Yard" which occupies part of the south of the site and extends beyond the boundary to the south-east.
- 1.3.44 By the time of the Ordnance Survey 1st Edition 25": mile map of 1875-9 (Fig 12) the site has been redeveloped from wharves to housing. The houses of Richmond Terrace occupy the northern extent of the site, with smaller buildings along Richmond Mews to their south, accessed via a covered entranceway on Parliament Street. These buildings are Grade II* listed and incorporate numbers 1-8 of Richmond Terrace (HEA 1c). To the south of this are shown a row of buildings facing onto Parliament Street, including the Grade II-listed 85 Whitehall (HEA 1b).
- 1.3.45 The Ordnance Survey 2nd edition 25":mile map of 1896 (Fig 13) shows the site bordered by Norman Shaw Buildings (labelled as 'New Scotland Yard') to the south-east. 53 Parliament Street (HEA 1j) and 49–50 Parliament Street (HEA 1k) had been built by this time. No further changes, aside from two small buildings on the south side of Richmond Mews, are apparent.
- 1.3.46 The Ordnance Survey 3rd edition 25":mile map of 1916 (Fig 14) shows new development within the site; further construction on the south side of Richmond Mews and a new building labelled 'Bank' facing onto Parliament Street. This is the Grade II listed 54 Parliament Street (formerly Grindlay's bank), built between 1898 and 1899 (HEA 1d). By the time of the Ordnance Survey 1:1250 scale map of 1951 (Fig 15), the buildings south of Richmond Terrace Mews have combined with a spur oriented north-south and the Norman Shaw buildings have extended northward, though not into the site. This arrangement within the site went unchanged until the site's redevelopment in the 1980s. The present building occupying the centre of the site was designed by Whitfield Associates, completed in 1982-84 and incorporated 85 Whitehall (HEA 1b) 1-8 Richmond Terrace (HEA 1c) and 54 Parliament Street (HEA 1d) and until 2017 housed the offices of the Department of Health.

1.4 MOLA team and other responsibilities

- 1.4.1 Within this document the following terms should be understood:
- 1.4.2 MOLA (Museum of London Archaeology) is a company limited by guarantee registered in England and Wales with company registration number 07751831 and charity registration number 1143574.
 Registered office: Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED.
- 1.4.3 *Project Manager* MOLA office based manager who is the client's principal point of contact and who has overall responsibility for the project budget and delivery.
- 1.4.4 Site Supervisor MOLA site based manager who is responsible for the direction of the field team. Site supervisors on larger sites will tend to be Project Officers in grade, whilst on other sites they will be Senior Archaeologists. On some sites there may be both a Project Officer and/or one or more Senior Archaeologists.
- 1.4.5 Archaeologists MOLA excavation staff responsible on site for archaeological excavation.
- 1.4.6 *Field Services Operations Manager* MOLA office based manager responsible for allocation of staff and supply of equipment and resources.
- 1.4.7 Health and Safety Compliance Manager The MOLA manager with sole responsibility for site inspections, reporting and issuing of recommendations for the Site Supervisor and Project Manager to implement. Reports directly to MOLA CEO.

- 1.4.8 *Principal Contractor* appointed directly by the Client with overall responsibility for site H&S under CDM regulations.
- 1.4.9 Attendance Contractor the contractor responsible for providing such attendances to MOLA as are deemed necessary to carry out their archaeological work (see section 4.2). These might for instance include but not be restricted to shoring, lighting, facilities, fencing, additional labour, spoil removal, etc. The Attendance Contractor may be the same as the Principal Contractor, or it may be subcontracted to the Principal Contractor or to MOLA.
- 1.4.10 *Sub-contractor* where this term is used in this document it refers to any contractor employed directly by MOLA during the course of its work on the site. MOLA sub-contractors are specified below.

2 Objectives of the evaluation

2.1 General considerations

- 2.1.1 The purpose of an archaeological field evaluation as defined by the Chartered Institute for Archaeologists (CIFA 2014) is to 'determine, as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices.'
- 2.1.2 This is further explained as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site... . If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate.'
- 2.1.3 The CIFA guidelines also states that, where evaluation takes place in support of a planning application, the archaeological resource should not be 'needlessly disturbed or damaged or inappropriate or excessive cost incurred'
- 2.1.4 An evaluation should thus augment any previous desk-based assessment, and provide all parties, particularly the Local Planning Authority archaeological advisor (GLAAS), with sufficient material information upon which to base informed decisions regarding the Stage 2 mitigation. The evaluation is therefore likely to result in the need for further archaeological intervention to be set out in a Stage 2 Written Scheme of Investigation following the procedures set out in the Overarching Written Scheme of Investigation in order to comply with planning conditions.
- 2.1.5 MOLA's archaeological evaluation methodology, and subsequent Stage 2 mitigation, will conform to best professional practice as summarised in the appropriate Chartered Institute for Archaeologists Guideline for Evaluation (CIFA 2014).

2.2 Site specific objectives

- 2.2.1 The enlargement of the existing basement and piling for the plant gantry on Derby Gate may have an impact on surviving archaeological deposits as well as on alluvial sediments dating to the prehistoric and historic periods. The primary objective of the evaluation is to confirm the extent, nature and significance of any surviving archaeological deposits or structures in the areas of the proposed basement and plant gantry at the site.
- 2.2.2 The assessment of significance of any surviving remains is undertaken in the context of the wider archaeological research priorities for London. These are set out in the Museum of London's 'A research framework for Greater London' (Museum of London 2002).

- 2.2.3 A number of broad objectives and research questions have been identified for this evaluation:
 - What is the nature and level of natural topography?
 - What are the earliest deposits identified?
 - What is the extent of modern disturbance?
 - Is there any evidence for prehistoric occupation?
 - Is there evidence for prehistoric structural remains like the Late Bronze Age to Early Iron Age timber structure previously found at the site at around -0.7m OD?
 - Is there evidence for early intertidal foreshore activity?
 - Is there any evidence for Saxon activity on the site?
 - Is there evidence for medieval waterfront structures such as river walls?
 - Are medieval land reclamation dumps present?
 - Does the medieval ground surface survive on the site?
 - Is there any evidence for medieval activity associated with the Palace of Westminster to the south or Whitehall Palace to the north?
 - What is the evidence for post-medieval activities on the site?
 - Are structural remains of waterfronts installations present?
 - Is there any surviving evidence for the buildings shown on 16th century maps and later?
 - Are there any remains associated with the 19th century National Opera Theatre, and what can they tell us about the building?
 - What can the below ground archaeology tell us about the buried element of standing buildings on the site and how can this supplement the understanding of those buildings?

3 Evaluation methodology

3.1 Archaeological considerations

- 3.1.1 The evaluation involves excavation of a number of archaeological evaluation trenches at basement level within Norman Shaw North and geoarchaeological boreholes located around the perimeter of the site.
- 3.1.2 Note that the proposed trench locations are provisional and are subject to revision depending on logistical (e.g. safe access) and physical (e.g. buried services) constraints. Other constraints within the basement are to do with the grade 1 listed building fabric, working heights and also remaining plant and services have also influenced the locations of the trenches. The trenching scheme shown in the figures and in the table below are intended to be indicative of the overall scale and approach of the archaeological evaluation.
- 3.1.3 Trenches 1 and 3 will address the impact caused by the ground reduction to the formation level 1.1m BGL. Trenches 2, 4, 5 will address the impact caused by the piling and will be excavated down to 2m BGL which is the expected depth of the top of the alluvium on the site.
- 3.1.4 It is currently envisaged that the investigations will be carried out after the building has been vacated.
- 3.1.5 The proposed archaeological investigations are detailed in Table 1, below.

Table 1: Archaeological investigations (*depths are estimates, boreholes will be drilled to surface of Kempton Park Gravels)			
Investigation Type	Location	Dimensions	Est. Depth
Tr 01	Existing basement	2m x 3m	c. 1.1m
Tr 02	Existing basement	2m x 2m	c. 2m
Tr 03	Existing basement	2.5m x 2.5m	c. 1.1m
Tr 04	Existing basement	2m x 2m	c. 2m
Tr 05	Existing basement	2m x 2m	c. 2m
BH 1	North-west corner	100mm	c. 7-8m*
BH 2	North-east section	100mm	c. 7-8m*

- 3.1.6 Initial location of the trenches and boreholes, and the breaking out by the Attendance Contractor will be monitored by MOLA staff.
- 3.1.7 All undifferentiated material of recent origin (normally defined as twentieth century and later) within trenches will be removed down to the first significant archaeological horizon. This will be done by the Attendance Contractor under archaeological supervision by MOLA. The MOLA Site Supervisor will decide when remains of archaeological significance requiring recording are revealed.
- 3.1.8 Following initial exposure of archaeological horizons, investigation will be by hand, with cleaning, examination and recording both in plan and section. Any archaeological remains revealed will be recorded in the appropriate manner (see 3.2). This technique is only appropriate for the removal of homogeneous and 'low-grade' layers where it can reasonably be argued that more detailed attention would not produce information of value, and where their removal may give a 'window' onto underlying levels.

- 3.1.9 Archaeological excavation will proceed only until significant archaeological levels have been reached and will be sufficient to allow the nature and extent of these to be identified. The levels at which all excavations will cease will be determined by on-site consultations between the Archaeology and Planning Officer of the local Authority, GLAAS and the MOLA Project Manager and a representative of the client or his agent.
- 3.1.10 Investigation will not be at the expense of any structures, features or finds which might reasonably be considered to merit preservation in-situ. Where archaeological remains are to be preserved in-situ they will be adequately protected from deterioration. This might involve for instance protective boxing; or wrapping deposits or features in a geo-textile such as Terram; or sealing with sand or other suitable soft materials; or other means as deemed suitable/appropriate at the time by the local authority.
- 3.1.11 Some features, such as pits and wells may merit excavation to a greater depth, and modern cut features will be used to provide a 'window' onto earlier levels.
- 3.1.12 In addition to the excavation of man-made deposits some assessment of 'naturally deposited' levels may be necessary, especially when these are organically preserved and laid down within archaeological timescales; for example alluvial or peat deposits.
- 3.1.13 Any finds of human remains will be left in situ, covered and protected. If removal is essential it can only take place under appropriate Faculty jurisdiction, Ministry of Justice (Coroner's Division) licence, environmental health regulations, coroner's permission, and if appropriate, in compliance with the Disused Burial Grounds (Amendment) Act 1981 or other local Act. It will be necessary to ensure that adequate security is provided.
- 3.1.14 Boreholes will be drilled by a sub-contractor under the supervision of a MOLA geoarchaeologist using windowless sampling equipment ('terrier' rig or Comaccio rig, or similar). At each borehole location a hand-dug starter pit will be excavated to 1.2m below ground level. Drilling will then proceed down to the surface of the Pleistocene gravel deposits (Kempton Park Gravels). Sediments will be recovered in plastic liners, labelled and sealed on site, and return to MOLA's laboratory for logging and assessment. Boreholes will be backfilled with pea gravel or bentonite, as appropriate.
- 3.1.15 Because the timing of the evaluation is dependent on the client, MOLA will be kept informed of when access is possible by the client.

3.2 Recording systems

- 3.2.1 A unique-number site code will be agreed with the Museum of London Archaeological Archive (LAA).
- 3.2.2 The recording systems adopted during the investigations will be fully compatible with those most widely used elsewhere in London, and those required by the Archive Receiving Body, the Museum of London.

3.3 Treatment of finds and samples

- 3.3.1 All recovery, retention and treatment of finds and samples will be carried out mindful of the overall purpose of the exercise, i.e. to evaluate for further decision making, as expressed in CIFA (2014) guidelines. To this end, all artefactual and ecofactual material will be reviewed on site for its capability to inform the evaluation report.
- 3.3.2 Where necessary, a supplementary strategy for sampling archaeological and environmental deposits and structures may be developed by MOLA in accordance with GLAAS and CIFA guidelines. Advice will be sought from the LPA Archaeological Advisor and the Historic England Regional Archaeological

- Science Advisor throughout the project, as appropriate. Subsequent off-site work and analysis of the processed samples and remains will be undertaken by MOLA specialists.
- 3.3.3 All retained finds and samples will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in a proper manner and to standards agreed in advance with the Museum of London.
- 3.3.4 All finds of gold and silver, or other objects definable as 'treasure', will be removed to a safe place and reported to the local Coroner according to the procedures of the Treasure Act 1996 and the Treasure (Designation) Order 2002. Where removal cannot be affected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.

3.4 Ownership of finds

- 3.4.1 Whereas ownership of any finds on the site lies with the landowner, it is necessary that the landowner gives the necessary approvals, licences and permissions to donate any finds recovered from the site to a suitable archaeological archive, to enable that body to carry out its obligations to curate the finds, in perpetuity, as part of the archaeological Archive from this site.
- 3.4.2 These approvals, licences and permissions shall be confirmed by the completion of the relevant Deed of Transfer form if required.
- 3.4.3 The client (or their agent) will make arrangements for the signing of the Deed of Transfer Form if required by the client or, if the landowner is different to the client, by the landowner.
- 3.4.4 Notwithstanding the above, subsequent arrangements may be made if required between the landowner and the Museum for the conservation, display, provision of access to or loan of selected finds in or near their original location.

3.5 Reports and archives

- 3.5.1 On completion of the fieldwork an *Evaluation report* will be made available to the Local Planning Authority within 6 weeks of the completion of fieldwork.
- 3.5.2 A short summary of the results of the evaluation will be submitted to the Greater London HER and NAR (using the appropriate archaeological report forms) and for publication in the appropriate academic journals.
- 3.5.3 Details of the project will be submitted to the online database maintained by the Online Access to the Index of Archaeological Investigations (OASIS) Project GIS data will also be made available to the GLHER.
- 3.5.4 Finds and records will be curated by a single organisation, and be available for public consultation in a site archive compatible with other archaeological archives in a suitable archaeological archive and adhering to standards set out in the following:
 - Archaeological Archive Forum, Archaeological Archives: a guide to best practice in creation, compilation transfer and curation (2011)
 - Museum of London, General Standards for the preparation of archaeological archives deposited with the Museum of London, (2009),
 - Museums and Galleries Commission's Standards in the Museum Care of Archaeological Collections (1992),
 - Society of Museum Archaeologists' draft Selection, Retention and Dispersal of Archaeological Collections (1992).

- Society of Museum Archaeologists (1995) Towards an Accessible Archive. The Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland, Scotland and Wales.
- United Kingdom Institute for Conservation Guidelines for the preparation of excavation archives for long term storage (1990)
- 3.5.5 Copyright of the written archive will be vested in a suitable archaeological archive.
- 3.5.6 Pursuant to these agreements the archive will be presented to the archive officer or relevant curator of a suitable archaeological archive within 12 months of the completion of fieldwork (unless alternative arrangements have been agreed in writing with the local planning authority). If there is further field work the archive for the evaluation will be presented with the archive for that field work.

3.6 Evaluation method agreement

- 3.6.1 The archaeological methodology and trench layout for the evaluation included in this NSN Standalone WSI must be approved by the Local Planning Authority's Archaeological Advisor prior to the start of work on site.
- 3.6.2 This recommended format attempts to define best practice but cannot fully anticipate conditions encountered as the evaluation progresses. Material changes to the approved evaluation format are however only to be made with the prior written approval of the Local Planning Authority.

4 Programme, staffing and attendances

4.1 Timetable and staffing

- 4.1.1 The timing and duration of the programme of archaeological Stage 1 evaluation and Stage 2 mitigation will be determined by the Principal Contractor's overall programme and the nature and extent of any surviving remains.
- 4.1.2 A Site Supervisor will monitor the archaeological works, with Archaeologists to help record and level any archaeology. Other specialists may be called in if necessary. It is unlikely that the recording of an individual evaluation trench, once dug, will need more than 2.5 person days. Each of geoarchaeological boreholes should be completed in less than 1 day.
- 4.1.3 Stage 2 archaeological excavation areas would take significantly longer the programme for any Stage 2 excavation area would be included in the Stage 2 mitigation WSI.

4.2 Attendances

- 4.2.1 For evaluations the attendances required by MOLA will be minimal. However, some provision for welfare and working conditions will need to be anticipated. Some or all of the following attendances may be required and supplied by the UK Parliament Strategic Estates.
- 4.2.2 The need for the shoring of trenches will be determined by a competent person taking into account ground conditions, groundwater conditions, weather conditions, nature of work to be undertaken, how long the work will take, adjacent structures. The shoring will be installed and maintained in accordance with CDM 2015 and HSG 150 throughout the occupancy of the site by a competent person employed by the Principal Contractor/client or their agents. The shoring will be inspected by a competent contractor (Not MOLA) before each shift, any event which may have affected the strength of the shoring, or any un-intentional falls of material or equipment.
- 4.2.3 Where mechanical or electric hoists are to be used in shored shafts, MOLA Health and Safety policy requires staff working in shafts less than 4m x 4m to leave the shaft before hoisting of buckets takes place and not to re-enter until the bucket is lowered back into position. Time for such evacuation will not form part of excavation programme. Beyond a depth of 3m within such shafts gas monitoring equipment will be required to ensure appropriate air quality for those working there. Where mechanical or electrical hoists are in use in larger excavation trenches, the area in which the hoist is in use must be clearly demarcated and no staff will enter this area while the hoist is being raised or lowered.
- 4.2.4 Safety guard-rails and suitable access points into the site and areas of excavation, away from any site traffic and machinery.
- 4.2.5 Ladders into all areas of excavation when the excavated depth requires such access.
- 4.2.6 If ground-water is encountered in the trenches, adequate pumps will be required to remove it in order to complete the excavations.
- 4.2.7 If necessary, tungsten halogen lamps (500W minimum) with 110-volt transformer, adequate cabling, and power supply may be required for trenches in the basement (Tr1 Tr13).
- 4.2.8 A suitable security system to operate overnight, weekends and holidays.
- 4.2.9 Labourers to assist in the removal of spoil from deeper areas of excavation.

5 Funding

5.1.1 UK Parliament Strategic Estates has an ongoing commitment to archaeological best practice and has a record in doing so. Agreement on funding for the archaeological fieldwork will be sought via a separate document.

6 Conclusion

- 5.1.2 In conclusion, 2 no. of boreholes will be required in the north-west and north-east of the site and 5 no. of trenches will be required within the basement. The number, depth and location of boreholes and trenches has been determined based on the impacts as set out in section 3 of this report.
- 5.1.3 The investigations will be carried out by MOLA with an attendance contractor. The results of the evaluation will determine what stage 2 archaeological mitigation will be required. The decision lies with the Local Planning Authority.

7 Bibliography

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8	Appendix: Norman Shaw North Envelope Works WSI			



Northern Estate Programme

Norman Shaw North Envelope Works - Written Scheme of Investigation

March 2021



Northern Estate Programme Norman Shaw North Envelope London SW1

Written scheme of investigation for an archaeological Watching brief

Sign-off history:

Issue No.	Date:	Prepared by:	Checked / Approved by:	Reason for Issue:
1	27/01/2021	David Divers	David Divers Senior Project Manager	Draft for client review

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1 Introduction

1.1 Project background

- 1.1.1 This Written Scheme of Investigation (or WSI) for an archaeological Watching Brief on the Norman Shaw Building North (NSN envelope) site has been commissioned from MOLA by UK Parliament Strategic Estates.
- 1.1.2 The NSN envelope site is bounded to the north by the Curtis Green Building, to the east by Laundry Road, to the south by Derby Gate and Norman Shaw South, and to the west by Richmond House, see Fig 1. The site contains the late 19th century Grade I listed Norman Shaw North building, access to the Whitehall Police Station building to the north, and a portion of Derby Gate to the south. The centre of the site lies at National Grid reference 530266 179810. Modern pavement level near to the site lies at c.7.4m OD.
- 1.1.3 The NSN envelope comprises Listed building consent for refurbishment of external facades; roof repairs and reconfiguration, including reconstruction of chimneys; removal of portacabins and demarcation of the courtyard central oculus; temporary removal of coping stones in the Embankment forecourt to site welfare accommodation; scaffolding fixings; and full planning consent for alterations to the courtyard eaves to create a roof access gallery; installation of new stone window recesses on the northern elevation; alteration of the north western corner stepped plinth; and crane gantry screw piling located in Commissioners' Yard.
- 1.1.4 This WSI is being submitted in support of the LBC application for the NSN envelope, and is provided on the basis that it would remove the need for a pre-commencement archaeological condition.
- 1.1.5 The potential archaeological interest on the site is for prehistoric, Roman and early medieval remains in areas of former river channels and intertidal foreshore, potentially also including waterlogged organic or timber remains, 13th-14th century reclamation deposits, medieval and post-medieval buildings and waterfront structures and remains associated with the creation of the mid-19th century Victoria Embankment, and remains associated with the 19th century National Opera Theatre.
- 1.1.6 The principal focus of the watching brief is the installation of crane gantry screw piles in Commissioners' Yard and any associate groundworks. A watching brief will also be undertaken during any other groundworks such as geotechnical investigations, utilities works and any other permitted works that may fall outside of the planning process where these have a potential to impact on archaeological remains.
- 1.1.7 An archaeological watching brief as defined by the Chartered Institute for Archaeologists is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (see below Section Error! Reference source not found.)
- 1.1.8 The results of the watching brief will inform the scope of archaeological evaluation, and subsequent archaeological work at NSN which will be detailed in a forthcoming Written Scheme of Investigation for the main phase of works at NSN. The results of the watching brief undertaken as part of the envelope work, and any other relevant archaeological works on the NSN site, will also be incorporated into the post-excavation work for the whole of the NSN scheme. The results will also be considered, and incorporated (where appropriate) into any further archaeological reporting on the Parliamentary Northern Estate
- 1.1.9 The results of the watching brief will also be set out in a report to be issued within 6 weeks of completing all fieldwork, although the need for a separate report on the NSN envelope works will be reviewed and agreed with Historic England's Greater London Archaeological Advisory Service (GLAAS). The site archive will be

- deposited along with the rest of the site archive within 12 months of the completion of all archaeological works on the NSN site.
- 1.1.10 This document sets out the methodologies (including Health & Safety) which will be followed during the watching brief and reporting stages. These will follow the Standards and Code of Practice laid down by the Chartered Institute for Archaeologists (CIFA 2014), London region archaeological guidance from Historic England (GLAAS 2015), and Historic England Centre for Archaeology Guidelines where appropriate.
- 1.1.11 Other relevant documents include:
 - the Norman Shaw North Envelope Application Archaeological Statement (January 2021)
 - the Norman Shaw North Archaeological Statement (NEP2.8) October 2019 (Northern Estate Programme 2019a)
 - The Addendum to the NEP Archaeological Desk-Based Assessments (MOLA 2020)

1.2 Archaeological background

1.2.1 A detailed description of the geology, archaeology and history of the site was provided in the Norman Shaw North Archaeological Statement (Northern Estate Programme 2019a) and is reproduced here:

Overview of past investigations

- 1.2.2 An archaeological investigation has been carried out in the site (HEA 1a). This comprised limited trial trenching in the 1960s by English Heritage, and a further phase in the early 1980s by ILAU (Inner London Archaeology Unit). These investigations showed the site was prone to flooding for much of its history, but was later used as for dumping in the medieval period, before being built up in the 17th and 18th centuries. Within the flood deposits, evidence of an Iron Age timber structure was noted.
- 1.2.3 In the immediate vicinity of the site there are a further four investigations (HEA 2, 3, 4 and 5). The investigation at the Norman Shaw North uncovered modern made ground only (HEA 2), and there is no further information contained in the MOL Archaeological Archive for the investigation at the River Wall in the 1960s (HEA 5). An evaluation and geoarchaeological evaluation carried out at the New Scotland Yard in 2014 recorded alluvial deposits relating to the mouth of the Tyburn, underlying thick made ground deposits and evidence of later Post-medieval development (HEA 3).
- 1.2.4 Within the rest of the study area there are a further 21 investigations, comprising watching briefs, evaluations and excavations. The results of these investigations, along with other known sites and finds within the study area, are discussed by period, below. The date ranges below are approximate.

Recent archaeological investigations in response to the NEP development

1.2.5 A watching brief (site code PIA18) on the excavation of 12 geotechnical trial pits taken in Laundry Road and Commissioners' Yard was undertaken by MOLA in 2018. Investigators identified the remains of Victorian foundations, thought to belong to the abandoned National Opera House in two of the trenches, TT7 and the Gate Foundation Trench. The rest of the observed test pits and trial trenches encountered only 20th century made ground and modern services. The base of these foundations was not seen in either trench (MOLA 2018). A further watching brief for an additional 22 geotechnical trial pits were taken in the basement levels of Norman Shaw North and 1 Derby Gate was undertaken by MOLA between 19 February and 23 May 2019. Investigators identified the foundations of late 19th century buildings

thought to belong to the National Opera Building in six of the trial pits in Norman Shaw North and in one trench at 1 Derby Gate. The base of these foundations was not reached and natural ground was not encountered in any of the trial trenches (MOLA 2019). For Richmond House, further site investigation works are currently being undertaken to Laundry Road and Richmond House, the works are ongoing and a watching brief is being carried out. A full report of the investigations will be produced following completion which is currently planned for February 2020. Interim findings have indicated nothing significant.

Prehistoric period (800.000 BC-AD 43)

- 1.2.6 The Lower (800,000–250,000 BC) and Middle (250,000–40,000 BC) Palaeolithic saw alternating warm and cold phases and intermittent perhaps seasonal occupation. During the Upper Palaeolithic (40,000–10,000 BC), after the last glacial maximum, and in particular after around 13,000 BC, further climate warming took place and the environments changed from steppe-tundra to birch and pine woodland. It is probably at this time that England saw continuous occupation. Erosion has removed much of the Palaeolithic land surfaces and finds are typically residual. There are no known finds dated to this period within the study area.
- 1.2.7 The Mesolithic hunter-gatherer communities of the postglacial period (10,000–4000 BC) inhabited a still largely wooded environment. The river valleys and coast would have been favoured in providing a predictable source of food (from hunting and fishing) and water, as well as a means of transport and communication. Evidence of activity is characterised by flint tools rather than structural remains. There have been chance finds dated to this period within the study area: a flint tool from Parliament Street, 1150m south-west of the site (HEA 31) and a deer antler pick from within a former channel 85m south-east of the site (HEA 42).
- 1.2.8 The Neolithic (40001–2000 BC), Bronze Age (2000–600 BC) and Iron Age (600 BC–AD 43) are traditionally seen as the time of technological change, settled communities and the construction of communal monuments. Farming was established and forest cleared for cultivation. An expanding population put pressure on available resources and necessitated the utilisation of previously marginal land. Sand and gravel 'high' areas such as Thorney would have remained as drier land when the surrounding area became waterlogged due to rising river levels, and together with their marshy margins are key for the recovery of evidence of prehistoric activity. Reeds or willow would be gathered for fuel or basket-making, and fowling and fishing would have taken place along the riverside; timber walkways or platforms would be constructed in places to give better access to the marshy areas and wicker fish traps may have been used to catch fish on the tide.
- 1.2.9 Part of a Late Bronze Age to Early Iron Age timber structure was recorded during the archaeological watching brief on the site (HEA 1a). It survived to around –0.7m OD (5.2mbgl). The laminated sand and clay deposits beneath it could indicate that it was situated at the edge of a creek or inlet and was therefore possibly part of a riverside revetment or quay. A base-plate of alder rested on a peat deposit at –1.4m OD; it was aligned north-south and about 0.2m wide, tapering to the south. Set vertically into it was a 0.6m length of a post c 0.1m wide made from an unsquared piece of wood, the bottom of which was wedge-shaped. About 0.8m from this the base plate was briefly interrupted, as if for the seating of another post which had been removed. The structure was buried beneath a deep deposit of gleyed silty clay (Andrews and Merriman 1986, 18–20).
- 1.2.10 Some isolated later prehistoric remains have also been recorded in the study area. In the 1960s, excavations at the Treasury Building and 10 Downing Street, 175m west of the site (HEA 49) found a polished Neolithic flint axe head on the remains of the floor of a Saxon hut. The GLHER notes the chance find of a Neolithic stone axe (HEA 35), in Richmond Terrace, immediately north of the site. A possible Late Iron Age pottery sherd was recorded during an investigation at the Women in World War

II Memorial (HEA 26), 90m north-west of the site.

1.2.11 The site was probably in the mouth of the Tyburn, waterlogged and probably permanently submerged, and unsuitable for settlement, but a timber structure has been recorded to the west, and jetties, revetments or other features may have been nearby, possibly extending into the site. Its location at the confluence with the Thames may have been significant – in addition to its natural resources – as a place of ritual. A large number of metal artefacts and stone axes have been recovered during dredging of the Thames, and many may have been deliberately deposited as votive offerings.

Roman period (AD 43-410)

- 1.2.12 Within approximately a decade of the arrival of the Romans in AD 43, the settlement of *Londinium* had been established on the north bank of the Thames where the City of London now stands, 2.5km north-east of the site. It quickly became a major commercial centre and port; it also formed the hub of the Roman road system in Britain which was key for both military and commercial traffic. Small settlements, typically located along the major roads, acted as both producers and markets for the town (MoLAS 2000, 150).
- 1.2.13 It is probable that the Roman road from the Kent coast via Canterbury and Rochester at one time crossed the Thames via a ford at what is now Lambeth to connect with another on the line of Edgware Road. There may therefore have been a crossing at or near Thorney Island, with a Roman road passing c 320m to the south-west of the site, although this has not been determined archaeologically.
- 1.2.14 A small settlement may have existed in the vicinity of St Martin-in-the-Fields, 625m north of the site, outside the study area. Excavations in this area have uncovered evidence of a tile kiln and structure as well as burials dating to the c 3rd century AD. This has been interpreted as a small religious or ritual site.
- 1.2.15 Isolated Roman pottery sherds, which were residual, were recorded during an investigation at the Women in World War II Memorial (HEA 26), 90m north-west of the site. The site would probably have been at or in the channel of the Tyburn at the confluence with the Thames during this period.

Early medieval (Saxon) period (AD 410–1066)

- 1.2.16 Following the withdrawal of the Roman administration from England in the early 5th century AD, *Londinium* was apparently abandoned. Germanic ('Saxon') settlers arrived from mainland Europe, with occupation in the form of small villages and an economy initially based on agriculture. By the end of the 6th century a number of Anglo-Saxon kingdoms had emerged, and as the ruling families adopted Christianity, endowments of land were made to the church. Landed estates (manors) can be identified from the 7th century onwards; some, as Christianity was widely adopted, with a main 'minster' church and other subsidiary churches or chapels. In the 9th and 10th centuries, the Saxon Minster system began to be replaced by local parochial organisation, with formal areas of land centred on settlements served by a parish church. The trading port of *Lundenwic* flourished in the area now occupied by Aldwych, the Strand and Covent Garden, 800m northeast of the site (Cowie and Blackmore 2008, xv).
- 1.2.17 In the 7th to 9th centuries, Christianity was widely adopted, alongside the development of royal estates and the endowment of Minsters (religious centres). Westminster is first mentioned in a charter dated to c AD 785, referring to the founding of a religious community dedicated to St Peter on the edge of the Thames, 400m to the south-west of the site: the church became known as the 'West Minster' to distinguish it from St Paul's Cathedral (VCH London i, 433–57). The site lay within the endowment of the community.
- 1.2.18 In the early 11th century, King Cnut constructed the Royal Palace of Westminster on the eastern side of Thorney Island, 400m to the south of the site. The palace burnt

- down c 1030 and was rebuilt by King Edward the Confessor (1042–66), who also constructed a large stone church in honour of St Peter the Apostle, consecrated in 1065 (Thomas et al., 2006).
- 1.2.19 Archaeological investigations in 1960–2, centred 170m west of the site (HEA 49) revealed evidence of occupation in the late 8th to mid-9th century, on a spur of high ground to the north of Thorney Island. A succession of timber buildings included a substantial hall, its position midway between *Lundenwic* to the north and the possibly contemporary monastery on Thorney Island to the south, suggest high or even royal status, and its abandonment may be connected with Danish raids of the late 9th century (Cowie and Blackmore 2008, 90–100).
- 1.2.20 Throughout this period the site would have probably still been in the channel of the Tyburn or in increasingly marshy ground. It is possible that fish traps were placed in the channel as these have been found elsewhere along this stretch of the Thames, typically associated with a tributary, for example at the mouth of Chelsea Creek 4.6km to the south-west, and on the opposite side of the Thames at the mouth of what was the Battersea Channel 2.4km to the south.

Later medieval period (AD 1066–1485)

- 1.2.21 The Domesday Book (1086) entry for the manor of Westminster includes St Peter's Church and the surrounding village, meadow, pasture and woodland.
- 1.2.22 Westminster Palace, c 200–400m to the south of the edge of the site, became the main residence of the English monarchy and the seat of the Court during this period (Weinreb and Hibbert 2008, 617). In 1099, Westminster Hall was added at the northern end of the Palace (Thomas et al 2006, 49) and was subsequently used to administer royal justice. Ecclesiastical organisation had by this period generally formalised into parishes, areas of land centred on settlements served by a minister and a parish church. The presence of both the abbey and palace would have encouraged a growth of population in the area, and the parish church of St Margaret was built to the north of the Abbey in the mid-11th century to provide a place of public worship (Weinreb and Hibbert 2008, 783).
- 1.2.23 Much of Thorney Island, 120m to the south of the site, and the surrounding low-lying ground would in the early part of the period still have been prone to flooding and occasionally boats were used to move across the island. On lower-lying ground, successive attempts were made to reclaim the land by digging drainage ditches and dumping soil (Thomas 1993, 12).
- 1.2.24 By 1180, the abbey precinct had been enclosed by boundary walls and a ditch. The precinct covered an area of 14 acres and was divided into private areas of the abbey to the south and the public space to the north. The abbey precinct came to be known as the Sanctuary, after the abbey's privilege of sanctuary, and included the parish Church of St Margaret to the south of Parliament Square, the belfry to the west, and the houses for the sanctuary men (Honeybourne 1932 quoted in Thomas 1993, 71). There were probably a number of ancillary buildings in this part of the precinct, although the location and extent of these are not known.
- 1.2.25 Research into the history of the area, carried out at the time of the 1980 investigation on the site (HEA 1a), included a reconstruction of the area in the later medieval period by Dr Gervase Rosser held with the site archive for RCH80 in the MOL Archaeological Archive (Fig 5). The predicted edge of the Thames is shown to be approximately bordering the eastern edge of the site, although it is not specified whether this was the water line or a revetment. The site itself appears to be occupied by 'gardens' and a small complex of buildings labelled "Richmond Ter. Mews".
- 1.2.26 In the 13th century, land on the east side of King Street, between Cannon Row (immediately south of the site) and Endive Lane (200m north of the site, in the vicinity of Horse Guards Avenue) was given by King Henry III to his brother Richard of Cornwall (briefly Holy Roman Emperor). He built a house (HEA 1g, within the

- south of the site) on the edge of the 'Mersflete' with gardens that came down to a landing stage on the Thames. Richard's eldest son Henry gave the land to Westminster Abbey (GLHER ref 081378/00/00). Although the 'Mersflete' often refers to a branch of the Tyburn further south it may also have been used for the section close to the site.
- 1.2.27 The GLHER notes the first reference to Whitehall, 180m north of the site, in 1305 when Joan, 'wife of the late William Charles' held a house set back from the riverfront, 125m to the north-west of the site, along with 32 acres (GLHER ref: 081384).
- 1.2.28 Parliament began to meet regularly at Westminster from the reign of Edward I (1272–1307). Edward I began the two-storeyed St Stephen's Chapel, which was completed in the reign of Edward III (1312–77). Edward III also built a high clock tower in the courtyard to the north of the Great Hall and the Jewel Tower at the south-west corner of the Westminster Palace (Bradley and Pevsner 1994, 229–32).
- 1.2.29 Land reclamation in the 14th century extended the grounds occupied by the royal residence, which by now occupied an area of 13.5 acres. The palace included an outer court (or New Palace Yard), a middle court (or Green Yard), and St Stephen's Court. By the 15th century, the area was crowded with businesses, with residential properties and shops even within the precinct of Westminster Abbey (Thomas et al 2006). Archaeological investigations to the south of the study area have found evidence of continued silting at the edge of the Thames, 125m south-east of the site (HEA 18) and 140m south of the site (HEA 14), where reclamation took place at the end of the period by drainage and the use of consolidation deposits.
- 1.2.30 The extent of riverfront reclamation in this period is uncertain. The site was possibly partly on land and partly in the Thames. There is a possibility that structures such as jetties or fish traps may have extended into the site, and there may have been early revetments constructed. The archaeological watching brief on the site (HEA 1a), noted evidence that the area of the site was marginal land at the edge of Thorney Island; until the construction of a riverside wall in the later 16th-century it was frequently flooded despite late-medieval attempts at reclamation, and used for dumping rubbish. In the west of the area investigated, close to Whitehall, made ground was recorded to c –1.0m OD (5.5m below street level), where natural clays and peats were overlain by a mixed layer of clay and organic material including large quantities of leather scraps, and also household refuse such as bone, and mussel and other shells, dated to the 15th or 16th century (Andrews and Merriman 1986, 19).

Post-medieval period (AD 1485–present)

- 1.2.31 The Thames riverbank adjacent to the site became developed as part of the expanding royal and government centre of Westminster during the early post-medieval period including the establishment of Whitehall Palace, which was the main residence of the English monarchs in London from 1530 until 1698 when most of its structures were destroyed by fire (see below).
- 1.2.32 Just outside the study area to the north, York Place, the Archbishop of York's London residence since the 13th century, was much extended and developed in the 1520s by Cardinal Wolsey, Archbishop of York 1514-29. The Grade I listed MOD building immediately north of the site includes a vaulted undercroft wine cellar of c 1530, originally part of York Place.
- 1.2.33 On Wolsey's fall from power York Place was taken by King Henry VIII and renamed Whitehall Palace. An extensive rebuilding programme was carried out, with new gardens and orchards laid out and additional land acquired to the west, and two new sets of stairs were constructed to provide access to the river. Henry VIII died at Whitehall in 1547 but Whitehall Palace continued as a royal residence until the end of the 17th century, when William and Mary moved to Kensington Palace (Weinreb et al 2008, 1020, 1036). Whitehall Palace extended across much of the northern

- part of the study area, approximately as far south as the site and Richmond Terrace. The site lay in an open area, the Bowling Green, just to the south of the extensive complex of palace buildings. The southern part of Whitehall Palace included the Stone Gallery, a ground floor gallery which linked the Privy Gallery to the Bowling Green (Survey of London, Vol 13, 41-115).
- 1.2.34 The GLHER includes a number of entries for the palace and its associated features, including gardens and a bastioned river wall. The King's Street Gate, the main road entrance to the Palace from the south, was 110m west of the site (HEA 36).
- 1.2.35 The Thames would have been an important means of transport for the Court, and the private ('Privy') river stairs for the palace (HEA 48) were 80m north of the site. A Grade I listed fragment of reconstructed Tudor riverside terrace wall is 150m north of the site (List entry: 1066636). The projected line of this south towards the site would probably take it through the eastern part of the site.
- 1.2.36 A trial pit, dug at Richmond Terrace Mews on the site (HEA 1a), recorded the south-east corner of the orchard where it met the waterfront, with possible Tudor masonry at the base of a river wall. The GLHER and post-medieval maps indicate the site of the mid-16th century Garden Stairs would have been located immediately to the north-east of the site, on Richmond Terrace.
- 1.2.37 The 'Agas' Map of 1562 (Fig 6) shows the site occupied by several structures to the south of the orchard identified in the 1980s watching brief (HEA 1a). These appear to be organised around central courtyards and may represent the mews buildings. In the north-east of the site, a second set of stairs is indicated leading down to the Thames, and structures are shown built on top of the river wall cantilevered over the Thames. The map itself is isometric in nature, and does not show accurately conditions on the site.
- 1.2.38 Norden's map of Westminster of 1593 (Fig 7) shows large discrepancies with the Agas' map. It is more plan than isometric and shows the site in greater detail. Norden's map shows the majority of the site was occupied by the orchard noted above, with a wide river stair along the eastern boundary. In the south of the site, the possible mews buildings are shown.
- 1.2.39 In the mid-17th century the general environment became increasingly developed. Faithorne and Newcourt's map of 1658 (Fig 8) shows the site occupied by several buildings to the south of Whitehall Palace gardens. These buildings are arranged broadly east-west around central courtyard areas. This level of development appears to be short lived, as following the Restoration of the Monarchy in 1660, the land to the south of the privy garden at Whitehall was converted into a bowling green (Survey of London, Vol 13, 41-115).
- 1.2.40 It is possible that the development shown on Faithorne and Newcourt's map is a cartographic error, or that, given its isometric nature; details may be obscured, as Vertue's map of Whitehall Palace from 1670 (Fig 9) shows the northern extent of the site lying within the bowling green to the south of the Privy Garden, and it seems illogical to develop an area and then demolish it for the green. The eastern extent of the site is occupied by the possible bowling pavilion which fronts onto the River Thames with a projecting bay and apse. As the plan only covers the palace, details of the south of the site are not shown.
- 1.2.41 Whitehall Palace was almost entirely destroyed by fire in 1698. Truncated and fragmentary remains of the palace have been recorded in a number of archaeological investigations to the west of the site (HEA 4, 19 and 49). Rocque's map of 1746 (Fig 10) shows that the site is predominantly occupied by buildings at this time, replacing the bowling green. There appears to be a large house occupying the northern portion of the site, although it is unlabelled. Immediately south of this are shown wharves labelled "Tod's Wharf" with "Sand Wharf" to the south above Derby Court. One of these buildings facing onto Parliament Street may be the Grade II-listed 85 Whitehall (HEA 1b), a townhouse built mid-late 18th century, though individual buildings are not specified.

- 1.2.42 Faden's 1813 revision of Horwood's map of 1799 (Fig 11) shows the site is still occupied by wharf buildings. The possible large house shown on Rocque's map is gone, replaced by wharves, and a large plot of empty land in the north-east corner of the site where the house had stood. The wharves shown are unlabelled, but appear to be arranged around "White Hall Timber Yard" which occupies part of the south of the site and extends beyond the boundary to the south-east.
- 1.2.43 By the time of the Ordnance Survey 1st Edition 25": mile map of 1875-9 (Fig 12) the site has been redeveloped from wharves to housing. The houses of Richmond Terrace occupy the northern extent of the site, with smaller buildings along Richmond Mews to their south, accessed via a covered entranceway on Parliament Street. These buildings are Grade II* listed and incorporate numbers 1-8 of Richmond Terrace (HEA 1c). To the south of this are shown a row of buildings facing onto Parliament Street, including the Grade II-listed 85 Whitehall (HEA 1b).
- 1.2.44 The Ordnance Survey 2nd edition 25":mile map of 1896 (Fig 13) shows the site bordered by Norman Shaw Buildings (labelled as 'New Scotland Yard') to the southeast. 53 Parliament Street (HEA 1j) and 49–50 Parliament Street (HEA 1k) had been built by this time. No further changes, aside from two small buildings on the south side of Richmond Mews, are apparent.
- 1.2.45 The Ordnance Survey 3rd edition 25":mile map of 1916 (Fig 14) shows new development within the site; further construction on the south side of Richmond Mews and a new building labelled 'Bank' facing onto Parliament Street. This is the Grade II listed 54 Parliament Street (formerly Grindlay's bank), built between 1898 and 1899 (HEA 1d). By the time of the Ordnance Survey 1:1250 scale map of 1951 (Fig 15), the buildings south of Richmond Terrace Mews have combined with a spur oriented north-south and the Norman Shaw buildings have extended northward, though not into the site. This arrangement within the site went unchanged until the site's redevelopment in the 1980s. The present building occupying the centre of the site was designed by Whitfield Associates, completed in 1982-84 and incorporated 85 Whitehall (HEA 1b) 1-8 Richmond Terrace (HEA 1c) and 54 Parliament Street (HEA 1d) and until 2017 housed the offices of the Department of Health.

1.3 MOLA team and other responsibilities

In the document below the following terms should be understood:

- 1.3.1 *MOLA (Museum of London Archaeology)* is a company limited by guarantee registered in England and Wales with company registration number 07751831 and charity registration number 1143574. Registered office: Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED.
- 1.3.2 *Project Manager* MOLA office based manager who is the client's principal point of contact and who has overall responsibility for the project budget and delivery.
- 1.3.3 Site Supervisor MOLA site based manager who is responsible for the direction of the field team. Site supervisors on larger sites will tend to be Project Officers in grade, whilst on other sites they will be Senior Archaeologists. On some sites there may be both a Project Officer and/or one or more Senior Archaeologists.
- 1.3.4 *Archaeologists* MOLA excavation staff responsible on site for archaeological excavation.
- 1.3.5 *Field Services Operations Manager* MOLA office based manager responsible for allocation of staff and supply of equipment and resources.
- 1.3.6 Health and Safety Compliance Manager The MOLA manager with sole responsibility for site inspections, reporting and issuing of recommendations for the Site Supervisor and Project Manager to implement. Reports directly to MOLA CEO
- 1.3.7 *Principal Contractor* appointed directly by the Client with overall responsibility for site H&S under CDM regulations.
- 1.3.8 Attendance Contractor the contractor responsible for providing such attendances

- to MOLA as are deemed necessary to carry out their archaeological work (see section 4.2). These might for instance include but not be restricted to shoring, lighting, facilities, fencing, additional labour, spoil removal, etc The Attendance Contractor may be the same as the Principal Contractor, or it may be subcontracted to the Principal Contractor or it may sub-contracted to MOLA.
- 1.3.9 Sub-contractor where this term is used in this document it refers to any contractor employed directly by MOLA during the course of its work on the site. MOLA subcontractors are specified below.

2 Objectives of the Watching Brief

2.1 General considerations

- 2.1.1 The purpose of an archaeological watching brief as defined by the Chartered Institute for Archaeologists (CIFA, 2014) as '...a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons....where there is the possibility that archaeological deposits may be disturbed or destroyed.'
- 2.1.2 A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.
- 2.1.3 Further to para 2.1.2, if during the course of the watching brief it is determined by the local authority that 'controlled excavation' is the appropriate mitigation strategy for a given area the appropriate additional objectives and methodologies will be followed, see 2.2.5
- 2.1.4 The Standard also notes that a watching brief may be the appropriate archaeological response outside the planning process (eg ecclesiastical development, coastal erosion, agriculture, forestry, and countryside management, works by public utilities and statutory undertakers).

2.2 Site specific objectives

- 2.2.1 The archaeological brief is essentially limited to establishing where, if at all, archaeological deposits survive (presence/absence), recording where necessary, and to ensuring that the proposed groundworks do not involve the destruction of any archaeological deposits of national significance.
- 2.2.2 The principal focus of archaeological work on the NSN envelope site is the is the installation of crane gantry screw piling in Commissioners' Yard and any associated ground works. A watching brief will also be undertaken during any other groundworks such as geotechnical investigations, utilities works that may have a potential to impact on archaeological remains.
- 2.2.3 The watching brief will involve a MOLA Site Supervisor in attendance on the Principal Contractor's (or any other contractor employed by them or the client) activities and able to make such records as may be possible without interrupting the progress of the contractors' activities.. This may typically include taking photographs, making quick sketches or written records, retrieval of finds and taking levels on observations. The primary purpose of watching briefs will normally be the identification of the limits of features size, depth, alignment.
- 2.2.4 Bulk finds will not normally be recovered in the watching brief areas, though finds of specific and unique intrinsic interest may be collected.
- Where an agreed area is set aside for 'controlled excavation' the terms of limitations of paras 2.2.1, 2.2.3 and 2.2.4 do not apply. Agreement must be reached on a) the research aims for 'controlled excavation'; b) the size and safe demarcation of any such agreed area; and c) appropriate time allocated by the client for the 'controlled excavation' to take place. Controlled excavation will then be carried out, finds will be recovered and samples taken in accordance and complying with the CIfA Standard and Guidance for Excavation (2014). The curator may decide that an additional WSI, or at least a supplement to the present document, is also required.
- 2.2.6 The piling for the plant gantry will have a limited impact on archaeological remains so the purpose of the Watching Brief on the piling is primarily precautionary in case additional ground works are required during installation, to remove obstructions for example.

- 2.2.7 A number of broad objectives and research questions have been identified for the watching brief although it is unlikely that the questions can be answered due to the limited scope of works:
 - What is the nature and level of natural topography?
 - What are the earliest deposits identified?
 - · What is the extent of modern disturbance?
 - Is there any evidence for prehistoric occupation?
 - Is there evidence for early intertidal foreshore activity?
 - Is there any evidence for Saxon activity on the site?
 - Is there evidence for medieval activity on the site
 - What is the evidence for post-medieval activities on the site?
 - Is there any surviving evidence for the buildings and/or structures shown on 16th century maps and later?
 - Are there any remains associated with the 19th century National Opera Theatre, and what can they tell us about the building?
 - What can the below ground archaeology tell us about the buried element of standing buildings on the site and how can this supplement the understanding of those buildings?

3 Watching brief methodology

3.1 Archaeological considerations

- 3.1.1 A watching brief will cause minimal disruption to site works and will take place within agreed constraints. Watching briefs are not recommended in circumstances where important or complex archaeological remains are liable to be discovered, resulting in a risk of conflict between the need to record archaeological finds and the need to allow building works to proceed.
- 3.1.2 A MOLA Site Supervisor will monitor all ground work with a potential to impact on archaeological remains which will be recorded in the appropriate manner (plans, sections, field notes and/or pro-forma 'context sheets'). Any necessary photographic records will be made using digital or conventional media as deemed appropriate. All recording will be carried out in accordance with national standards (CIFA 2014).
- 3.1.3 Subject to **Error! Reference source not found.** and 3.1.1 above, where archaeological deposits survive in any area of the proposed groundworks, the contractors will allow the MOLA archaeologist(s) reasonable time and access to record deposits as required.
- 3.1.4 In areas of archaeological interest the excavation and removal of deposits by the Contractor will, as far as possible and subject to **Error! Reference source not found.** above, proceed according to the reasonable advice and guidance given by the attending archaeologist.
- 3.1.5 Subject to **Error! Reference source not found.** above some areas might need to be re-scheduled in order to provide a safe environment for archaeological recording.
- 3.1.6 Provision will be made, at the earliest stage of development programming, for specified blocks of time to be made available for unrestricted archaeological access to areas of groundworks to carry out the watching brief any 'controlled excavation' deemed necessary under para 2.2.5
- 3.1.7 Any finds of human remains will be left *in situ*, covered and protected. If removal is essential it can only take place under appropriate Faculty jurisdiction, Ministry of Justice (Coroner's Division) licence, environmental health regulations, coroner's permission, and if appropriate, in compliance with the Disused Burial Grounds (Amendment) Act 1981 or other local Act. Prior written notice will also be given to the local planning authority. It will be necessary to ensure that adequate security is provided.
- 3.1.8 Because MOLA is providing a monitoring service to an on-going construction programme, the timing of which can vary considerably, it remains the client's responsibility to ensure that their Principal Contractor informs MOLA no later than one week in advance of the start of any proposed groundworks where a watching brief is required.

3.2 Recording systems

- 3.2.1 A unique-number site code will be agreed with the Museum of London Archaeological Archive (LAA).
- 3.2.2 The recording systems adopted during the investigations will be fully compatible with those most widely used elsewhere in London, and those required by the Archive Receiving Body, the Museum of London.

3.3 Treatment of finds and samples

3.3.1 Where necessary, a strategy for sampling archaeological and environmental

- deposits and structures (which can include soils, timbers, animal bone and human burials) will be developed in consultation between MOLA, the client and the local Planning Authority. Subsequent on-site work and analysis of the processed samples and remains will be undertaken by MOLA specialists.
- 3.3.2 All retained finds and samples will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in a proper manner and to standards agreed in advance with the Museum of London.
- 3.3.3 All finds of gold and silver, or other objects definable as 'treasure', will be removed to a safe place and reported to the local Coroner according to the procedures of the Treasure Act 1996 and the Treasure (Designation) Order 2002. Where removal cannot be effected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft
- 3.3.4 Advice will be sought from the LPA Archaeological Advisor and the Historic England Regional Archaeological Science Advisor throughout the project, as appropriate.

3.4 Ownership of finds

- 3.4.1 Whereas ownership of any finds on the site lies with the landowner, it is necessary that the landowner gives the necessary approvals, licences and permissions to donate any finds recovered from the site to an archaeological archive, normally the Museum of London, to enable that body to carry out its obligations to curate the finds, in perpetuity, as part of the archaeological Archive from this site.
- 3.4.2 These approvals, licences and permissions shall be confirmed by the completion of any relevant Deed of Transfer form (MoL draft appended).
- 3.4.3 The client (or their agent) will make arrangements for the signing of the Deed of Transfer Form by the client or, if the landowner is different to the client, by the landowner
- 3.4.4 Notwithstanding the above, subsequent arrangements may be made if required between the landowner or client and the Museum for the conservation, display, provision of access to or loan of selected finds in or near their original location.
- 3.4.5 Alternative arrangements for the archive must be agreed with GLAAS.

3.5 Reports and archives

- 3.5.1 A Watching Brief report will be made available to the client and the Local Planning Authority within six weeks of the completion of fieldwork. The results will also feed into the archaeological strategy for NSN to be detailed in subsequent WSIs for the main phase of works on the NSN site, and will be incorporated into the post-excavation work following completion of all archaeological work on NSN. It is possible that GLAAS will agree that reporting of the re fieldwork on the . It is possible that reporting of the results of the NSN envelope works can be deferred for inclusion with the main NSN post-excavation work
- 3.5.2 If further to paras 2.1.3 and 2.2.5 the need for further 'controlled excavation' is identified during the course of the watching brief, any additional such controlled excavation carried out by MOLA will normally lead to a post-excavation assessment report as per MAP2 (English Heritage 1991). The need for a post-excavation assessment report may also be determined by the local authority if significant finds or environmental samples have been recovered during the watching brief, even if an area of 'controlled excavation' has not been defined during the fieldwork. Any post-excavation assessment report will normally subsume the overall watching brief report.
- 3.5.3 A short summary of the results of the watching brief will be submitted to the Greater London HER and NAR (using the appropriate OASIS archaeological report form) and for publication in an appropriate academic journal.

- 3.5.4 Details of the project will be submitted to the online database maintained by the Online Access to the Index of Archaeological Investigations (OASIS) Project
- 3.5.5 GIS data will also be made available to the GLHER.
- 3.5.6 Finds and records will be curated by the Museum of London and be available for public consultation in a site archive compatible with other archaeological archives in the Museum of London and adhering to standards set out in the following:
 - Archaeological Archive Forum, Archaeological Archives: a guide to best practice in creation, compilation transfer and curation (2011)
 - Museum of London, General Standards for the preparation of archaeological archives deposited with the Museum of London, (2009),
 - Museums and Galleries Commission's Standards in the Museum Care of Archaeological Collections (1992),
 - Society of Museum Archaeologists' draft Selection, Retention and Dispersal of Archaeological Collections (1992).
 - Society of Museum Archaeologists (1995) Towards an Accessible Archive.
 The Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland, Scotland and Wales.
 - United Kingdom Institute for Conservation Guidelines for the preparation of excavation archives for long term storage (1990)
- 3.5.7 Copyright of the written archive will be vested in the Museum.
- 3.5.8 Pursuant to these agreements the archive will be presented to the archive officer or relevant curator of the Museum within 12 months of the completion of all archaeological work for NSN (unless alternative arrangements have been agreed in writing with the local planning authority).

4 Programme, staffing and attendances

4.1 Timetable and staffing

4.1.1 The timing and overall duration of the archaeological watching brief on the groundworks will be determined by the contractor's programme and the nature and extent of any surviving remains. It is envisaged that a Senior Archaeologist (or Geoarchaeologist) will monitor the groundworks, with Archaeologists to assist with any recording work if required. Other archaeological specialists may be called in if necessary.

4.2 Attendances

- 4.2.1 For watching briefs, the attendances required by MOLA tend to be minimal as archaeologists are in fact attending the on-site works. However, some provision for welfare and working conditions will need to be anticipated. Some or all of the following attendances may be required and supplied by the UK Parliament Strategic Estates.
- 4.2.2 If additional 'controlled excavation' is required as per para 2.2.5 there may be a need for additional or more extensive attendances. These will have to be discussed and agreed between the client and MOLA but will be as appropriate to and necessary for safe working conditions and adequate site facilities for any additional staff required.
- 4.2.3 The need for the shoring of trenches will be determined by a competent person taking into account ground conditions, groundwater conditions, weather conditions, nature of work to be undertaken, how long the work will take, adjacent structures. The shoring will be installed and maintained in accordance with CDM 2015 and HSG 150 throughout the occupancy of the site by a competent person employed by the Principal Contractor/client or his agents. The shoring will be inspected by a competent contractor (Not MOLA) before each shift, any event which may have affected the strength of the shoring, or any un-intentional falls of material or equipment.
- 4.2.4 Where mechanical or electric hoists are to be used in shored shafts, MOLA Health and Safety policy requires staff working in shafts less than 4m x 4m to leave the shaft before hoisting of buckets takes place and not to re-enter until the bucket is lowered back into position. Time for such evacuation will not form part of excavation programme. Beyond a depth of 3m within such shafts gas monitoring equipment will be required to ensure appropriate air quality for those working there. Where mechanical or electrical hoists are in use in larger excavation trenches, the area in which the hoist is in use must be clearly demarcated and no staff will enter this area while the hoist is being raised or lowered.
- 4.2.5 Safety guard-rails and suitable access points into the site and areas of excavation, away from any site traffic and machinery.
- 4.2.6 Ladders into all areas of excavation when the excavated depth requires such access
- 4.2.7 If ground-water is encountered in the trenches, adequate pumps will be required to remove it in order to complete the excavations.
- 4.2.8 If necessary, appropriate task lighting, adequate cabling, and power supply may be required.
- 4.2.9 A suitable security system to operate overnight, weekends and holidays.
- 4.2.10 Labourers to assist in the removal of spoil from deeper areas of excavation.

5 Funding

5.1.1 UK Parliament Strategic Estates has an ongoing commitment to archaeological best practice and has a record in doing so. Agreement on funding for the archaeological fieldwork will be sought via a separate document.

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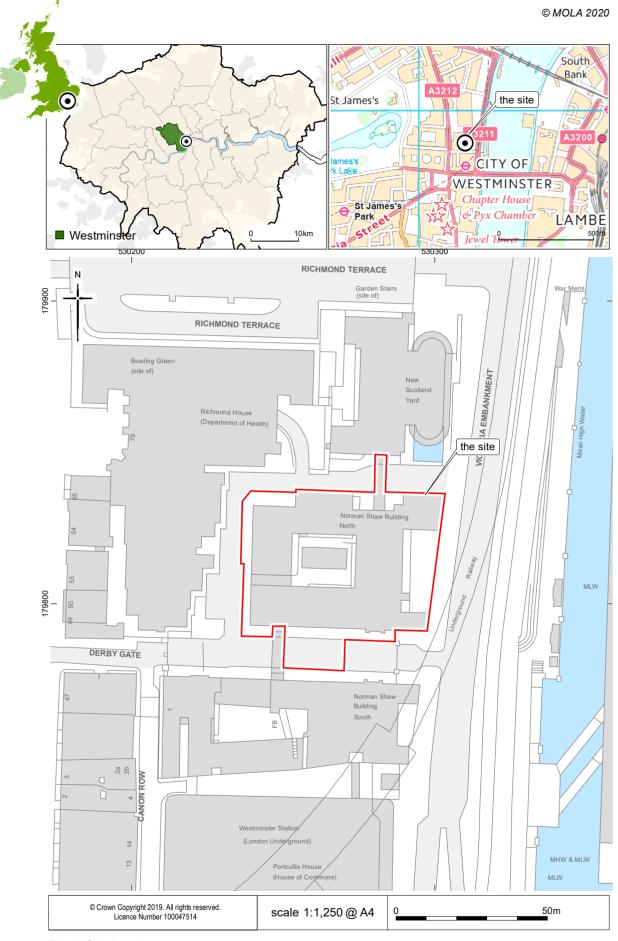


Fig 1 Site location

7 Appendix: Draft Transfer of finds ownership form

DATED 20

[]

-AND-

THE BOARD OF GOVERNORS OF THE MUSEUM OF LONDON

DEED OF TRANSFER of Finds excavated at []

Site Code []

THIS DEED OF TRANSFER is made on the

day of

20

BETWEEN: -

[] a company registered in England under Reg. No [] whose registered office is situate at [] ("the Site Owner");

AND

THE BOARD OF GOVERNORS OF THE MUSEUM OF LONDON an exempt charity established under the Museum of London Acts 1965-1986, whose principal place of business is located at 150 London Wall, London EC2Y 5HN, ("the Museum") which expression shall include any Governors appointed from time to time acting in accordance with the powers vested in them under the Museum of London Acts 1965-1986.

WHEREAS

A The Site Owner is the owner of a property at [] known by its site code [] whereupon an archaeological intervention has been carried out ("Excavation").

B The Site Owner is the owner of any items of archaeological interest found during the Excavation.

C The Site Owner wishes to transfer to the Museum title to the items referred to in Recital B.

D The Museum has agreed to provide facilities for the accommodation and, at its discretion, the display of the items referred to in Recital B on condition that the same are assembled as an archive in accordance with the provisions of this Deed.

NOW IT IS HEREBY AGREED as follows: -

1. PREPARATION AND DELIVERY OF THE ARCHIVE

- 1.1 The Site Owner will procure the preparation of the items of archaeological interest found during the Excavation in accordance with the requirements of the Museum's *General Standards for the Preparation of Archaeological Archives deposited with the Museum of London*, a copy of which is available to the Site Owner for inspection, and generally in accordance with best archaeological practice. The Site Owner will also procure to be prepared a full inventory of the items so prepared ("the Finds Inventory") and a list of the boxes and other containers in which those items will be transported to the Museum ("the Final Transfer Summary"). The items of archaeological interest listed in the Finds Inventory are hereinafter referred to as "the Finds".
- 1.2 The Site Owner will arrange for delivery of the Finds, Finds Inventory and the Final Transfer Summary to the Museum without cost to the Museum, after consultation with the Museum as to the method and time of delivery.
- 1.3 Title to and risk in the Finds will pass to the Museum on delivery of the Finds to the Museum in accordance with clause 1.2.

2. WARRANTIES

- 2.1 The Site Owner warrants to the Museum that:
 - 2.1.1 [to the best of its knowledge and belief delete as appropriate] at the date of this Deed ownership of the Finds is vested exclusively in the Site Owner;
 - 2.1.2 [to the best of its knowledge and belief *delete as appropriate*] at the date of this Deed the Finds are free of all charges, encumbrances and third party rights and no right has been granted in respect of them which would affect the transfer of title to the Finds by the Site Owner to the Museum or otherwise give rise to any conflict with the provisions of this Deed;
 - 2.1.3 [to the best of its knowledge and belief *delete as appropriate*] at the date of this Deed the Site Owner has the unfettered right to transfer ownership and possession of the Finds to the Museum;
 - 2.1.4 the Site Owner will at its own cost take all steps which are or may be necessary at any time to cure any defects in the title to the Finds; and
 - 2.1.5 the Site Owner warrants that it or its contractors have complied with all of the requirements of the Treasure Act 1996 and any statutory modification or re-enactment of that Act, and all other legislative requirements relating to the Excavation.
- 2.2 The Site Owner will indemnify the Museum against any and all claims, demands, proceedings, costs, expenses, loss or damage, of whatever nature which may be made or brought against or incurred by the Museum arising out of or in connection with any breach of the warranties given respectively by the Site Owner in clause 2.1.

3. INTERPRETATION; GOVERNING LAW AND JURISDICTION

3.1 This Deed will be governed by and construed in accordance with the Laws of England and Wales regardless of the place of execution or performance. The English Courts will have exclusive jurisdiction to deal with any dispute or other difference arising out of or in connection with this Deed, unless the Museum chooses to invoke, or voluntarily submits to, the jurisdiction of some other tribunal.

IN WITNESS of which the parties hereto have executed the date first written above	his document as a Deed on the
[] By means of these signatures:	
	Director
	Director/Secretary
The COMMON SEAL of THE BOARD OF GOVERNORS OF THE MUSEUM OF LONDON was hereunto affixed in the presence of:	
	Chairman
	Secretary

8 Health and Safety Risk Assessment and Method Statement (RAMS)

A *Health & Safety Risk Assessment and Method Statement* has been prepared by MOLA to accompany this WSI but will be printed out and submitted separately as appropriate.