100 GRAY'S INN ROAD AND 127 CLERKENWELL ROAD
London
WC1X 8AL

London Borough of Camden

WRITTEN SCHEME OF INVESTIGATION FOR AN ARCHAEOLOGICAL STRIP-MAP-SAMPLE EXCAVATION AND WATCHING BRIEF

Date 20.06.2024

Project Manager: Antonietta Lerz

100 GRAY'S INN ROAD AND 127 CLERKENWELL ROAD London WC1X 8AL

Written scheme of investigation for an archaeological strip- map- sample excavation and watching brief

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1 Contents

Figures

2 Introduction

2.1 Project background

2.1.1 This Written Scheme of Investigation (or WSI) for an archaeological Strip-Map-Sample excavation (SMS) and Watching Brief on the site of 100 Gray's Inn Road and 127 Clerkenwell Road, London WC1X 8AL has been commissioned from MOLA by Global Holdings Management.

2.1.2 The site is bounded by Gray's Inn Road and buildings fronting onto this road to the west, Clerkenwell Road to the north, the Bourne estate to the east and buildings fronting onto Portpool Lane to the south (Fig 1). The site falls within the historic parish of St Andrew Holborn and lay within the county of Middlesex prior to being absorbed into the Greater London Borough of Camden.

2.1.3 The centre of the site lies at National Grid reference 531034 181958. Ground level on the site is at approximately 21m OD, and the existing basement at 100 Gray's Inn Road varies in level, from approximately 17.5m OD and 18.4m OD.

2.1.4 The site lies within the London Suburbs Archaeological Priority Area, a tier 2 APA notable for its proximity to Roman Londinium, Anglo-Saxon Lundenwic, medieval city of London, civil war defence lines and for its importance during the post-medieval expansion of London from the 17th century. The site contains no designated assets.

2.1.5 The development comprises the demolition of 100 Gray's Inn Road and 127 Clerkenwell Road and the construction of a single new office building in their place, together with the refurbishment of 88 Gray's Inn Road.

2.1.6 The proposed basement will cover the full footprint of the new building on the site of 100 Gray's Inn Road and 127 Clerkenwell Road with a formation level of 16.40m OD stepping down to 15.67m OD in the central part of the basement at 100 Gray's Inn Road, and a formation level of 18.9-m OD for pile cap installation at 127 Clerkenwell Road. This would involve reducing the ground within the footprint of the existing 100 Gray's Inn Road basement by c 1.88- 2.61m and by 2.44m at 127 Clerkenwell Road. The Scheme will entail the extension of the basement into the courtyard area behind the existing buildings, with a formation level of 17.2m OD, reducing the ground level by c 3.5m.

2.1.7 The proposed basement plan and location of the piles are illustrated on Fig 2.

2.1.8 The development received planning permission on 20 December 2023 (ref 2022/4259/P). The Archaeological condition (28) requires:

> No below ground level demolition or any construction shall take place until a written scheme of investigation (WSI) has been submitted to and approved by the local planning authority in writing. For land that is included within the WSI, no development other than demolition above ground level only shall take place other than in accordance with the agreed WSI, and the programme and methodology of site evaluation and the nomination of a competent person(s) or organisation to undertake the agreed works.
>
> If heritage assets of archaeological interest are identified by stage 1 then for those parts of the site which have archaeological interest a stage 2 WSI shall be submitted to and approved by the local planning authority in writing. For land that is included within the stage 2 WSI, no development excluding demolition above ground level only shall take place other than in accordance with agreed stage 2 WSI which shall include:
>
> A. The statement of significance and research objectives, the programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works;

> B. Where appropriate, details of a programme for delivering related positive public benefits;
>
> C. The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the stage 2 WSI.
>
> Reason: In order to safeguard the special architectural and historic interest of the building in accordance with the requirements of policies D1 and D2 if the Camden Local Plan 2017.

2.1.9 Details of the consented development are available on London Borough of Camden's planning register under ref 2022/4259/P.

2.1.10 This document has been produced to address the Stage 2 WSI part of the condition. Following the results of the evaluation, MOLA consulted Greer Dewdney at the Greater London Archaeological Advisory Service (GLAAS) regarding the scope of Stage 2 archaeological works, and received a recommendation that a Strip, Map and Sample excavation be undertaken in areas of greatest depths/ disturbance and a watching brief on temporary works (email correspondence-dated 4th June 2024).

2.1.11 It is proposed that there should be a Strip, Map and Sample archaeological mitigation in the central part of the 100 Gray's Inn Road basement, located in the footprint of the proposed lower level basement. A watching brief is proposed across the remainder of the Site area during ground reduction and piling works, with an enhanced watching brief on ground reduction for basement and shafts in the courtyard area behind the existing buildings (88 Gray's Inn Road).. Further details and methodology are stated in Section 5 (Fig 2, Fig 3).

2.1.12 A previous archaeological evaluation was carried out on site by MOLA from the 14th to 22nd September 2023. In accordance with the associated WSI (MOLA 2023) three trenches were located in the basement of 100 Gray's Inn Road (Trenches 1–3) and two trenches at ground level at 127 Clerkenwell Road (Trenches 4–5).In situ natural sand and gravel was recorded in Trench 1 at a surface height of 17.16m OD above which was an undated agricultural or garden soil, potentially predating the 16th-century urban development of the area. The earliest deposits in Trench 3 included a possible geological subsoil sealing the natural, or alternatively, a dumped deposit possibly within a large quarry feature. Post-medieval made ground deposits, potentially of 17th date were identified in Trenches 1 and 2. A brick wall foundation in Trench 2, provisionally dated to the 19th century, may be associated with Holborn Town Hall which opened in 1880.

2.1.13 Trench 4 to the rear of 127 Clerkenwell Road did not encounter archaeological remains due to obstructions, and Trench 5 was cancelled due to its proximity to live services and an electrical sub-substation. The results of the evaluation were presented in the Evaluation Report (MOLA 2024)

2.1.14 The potential archaeological interest on the site is:

- **Early-medieval and later medieval remains** Whilst Gray's Inn was established in the 14th century, 200m south/southwest of the site, 16th-century maps suggest the site remained as open fields until the 17th century and medieval activity may have been confined to agricultural activity. The 2023 evaluation encountered deposits that may be related to this phase of activity.
- **Post medieval building remains** There is moderate potential for encountering remains relating to buildings which are known to have occupied the site from the 17th century onwards, including late 17th-19th century Black Bull Inn and Holborn Town Hall constructed in 1880. Remains of buried foundations or basement remains of this period would be low significance.
- **Roman remains**. Whilst no Roman deposits were encountered during the 2023

evaluation, there is low to moderate potential for encountering Roman remains. The site is adjacent to the possible course of a Roman road and has potential for evidence of the construction of the road and adjacent ditches, its use, and for evidence of roadside activity such as settlement or burials. Roman remains would be of medium or high significance, depending on their nature and extent.

2.1.15 An archaeological excavation as defined by the Chartered Institute for Archaeologists is 'a programme of intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, in an inter-tidal zone or under water.' (CIfA 2023a).

2.1.16 An archaeological watching brief as defined by the Chartered Institute for Archaeologists as archaeological monitoring and recording is '*a formal programme of observation, investigation and recording conducted during works carried out for non-archaeological reasons, where there is a possibility that archaeological deposits may be disturbed or destroyed. This will be within a specified area or site on land, in an inter-tidal zone or under water. This definition and Standard do not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains in situ*' (CIfA 2023a) (see below Section 3.1).

2.1.17 If during the course of the watching brief an area or group of features is identified which warrants 'controlled excavation', as determined on site by the local authority and/or their advisor, this will be dealt with under methodologies applicable to 'controlled excavation' as outlined in 3.1.7 below. If required, site specific methodologies for controlled excavation will be covered in supplementary documents to this WSI.

2.1.18 The results of the archaeological excavation will be set out in a preliminary report (ie *Post-excavation Assessment*) to be issued within six months completing the fieldwork.

2.1.19 This document sets out the methodologies which will be followed during the excavation, watching brief 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, local and regional planning authority archaeology guidance and Historic England Centre for Archaeology Guidelines where appropriate. A Health and Safety Risk Assessment and Method Statement (RAMs) for the site will be prepared by MOLA to accompany this WSI but will be submitted separately.

2.1.20 Other relevant documents include:

- the *Archaeological desk-based assessment* (MOLA, 2020). This presented the initial assessment of archaeological potential on the site.
- The *Report on Archaeological Evaluation* (MOLA 2023b) which describes the results of the trench evaluation and refined the archaeological potential of the site.

2.2 Planning and legislative framework

2.2.1 The planning and legislative background for the site has been adequately summarised in the previous Archaeological desk-based assessment (MOLA 2022, section 9).

2.3 Public value and engagement

2.3.1 As part of the archaeological works, MOLA will work with the client to deliver integrated public engagement activities appropriate to the scope of the scheme and the scale and significance of the findings, which will need to be approved by the Council's Archaeologist.

2.3.2 A detailed and fully costed public impact strategy will be presented to the client prior to the planning and delivery of any activities.

2.4 Archaeological and historical background

2.4.1 The *Archaeological desk-based assessment* (MOLA 2022), and the *Archaeological evaluation report* (MOLA 2023b) set out the results of desk-top assessment and archaeological field evaluation which have been carried out on the site to date.

2.4.2 The reports should be read for the results of these investigations, although they can be quickly summarised as follows:

2.4.3 The site lies within the London Suburbs Archaeological Priority Area (APA), a Tier 2 APA notable for prehistoric evidence, Roman roads and associated activity, medieval settlement, civil war defence lines and the 17th century expansion of London's suburbs. There are no designated assets within the site.

Roman (AD 43-410)

2.4.4 There is low to moderate potential for encountering Roman remains. The site is adjacent to the possible course of a Roman road, and has potential for evidence of the construction of the road and adjacent ditches, its use, and for evidence of roadside activity such as settlement or burials. Roman remains would be of medium or high significance, depending on their nature and extent.

Early Medieval (AD 410-1066) and Later medieval (AD 1066-1485)

2.4.5 While the site lies within 700m of early-medieval and later-medieval activity, later mapping suggests that the site lay within open or agricultural fields on the fringes of the early medieval settlement.

Post-medieval (AD 10485-present)

2.4.6 At the end of the medieval period the site lay on the fridge of urban London. A 1563 Map by Agas (not reproduced) shows houses fronting onto Gray's Inn Lane to the south of the site with open fields behind. Gray's Inn, and its associated gardens, are shown on the west side of Gray's Inn Road (DBA 2022; fig 4). The gardens were originally designed by Francis Bacon and subsequently altered. Excavations at Panther House (Site code GIP21) 70m north of the Site revealed a number of late 16th or early 17th century rubbish pits which were probably associated with the nearby Inns of Court.

2.4.7 During the 1642-46 Civil War, earthwork defences were constructed enclosing London, and these are thought to have been situated 300m north-west of the site, on the edge of the study area. This is thought to have consisted of a bank and ditch fortification interspersed with forts and batteries, but was short lived, being dismantled following the end of the war. Little definitive archaeological evidence has been found for the defences across London, and their course is not well understood. While more recent interpretations have suggested the line of the defences may follow

the line of Theobald's Road/Clerkenwell Road and hence be situated within the vicinity of the Site, an excavation 190m north of the site, has found a ditch which may form part of the defences, which would approximately correspond with Sturdy's interpretation.

2.4.8 Fairthorne and Newcourt's 1658 map (not reproduced) shows the site as houses fronting onto Gray's Inn Road as far as the line of Theobald's Road/Clerkenwell Road; these houses must have been constructed between 1563 and 1658. Ogilby and Morgan's 1676 map shows substantial further development, with buildings now fronting onto Gray's Inn Road on the west side of the site and Liquor Pond Street to the north: a narrow lane was situated on the east side of the site, also fronted by smaller buildings: the area between the buildings in the centre of the site is depicted as narrow gardens. In the southern part of the study area, two narrow east-west lanes from Gray's Inn Road open into larger courtyards surrounded by buildings on all sides. Elsewhere, further buildings and streets had been established north of Liquor Pond Road (later Clerkenwell Road). Morgan's 1682 map (not reproduced) shows a similar picture, with some additional buildings filling part of the gardens behind the street frontage. The key to Morgan's map indicates that the central courtyard or mews was the location of the Black Bull Inn, which survived into the nineteenth century as a three storey, at least partially timber framed structure while the southern mews was the site of the Red Lion public house, presumably fronting onto the lane in this area. The site was surrounded by a series of other buildings and streets to the south, east and to a lesser extent to the north: further north and west the land still consisted of open fields.

2.4.9 Horwood's map of 1799 (not reproduced) shows substantial changes within the site, although it does still show the gardens behind the buildings and the mews that were the location of the Black Bull Inn. A number of terraced houses are shown along Gray's Inn Lane and Liquor Pond Street. The old lane is shown as ending in an open space behind the buildings, now known as Cow Yard: by this time it no longer connected to Gray's Inn Road. East of the site, many buildings had been replaced by a single large brewery.

2.4.10 The Ordnance Survey (OS) 1st edition 5':mile map of 1874 – 5 (nor reproduced) shows that more substantial changes had taken place. A terrace still fronted onto Gray's Inn Road but behind them, several buildings had been constructed, filling in much of the remaining open space. Further south, the 'Black Bull Yard' – the mews noted in 1682 – still survived, as did the remains of a lane from Gray's Inn Road, known as Red Lion yard. The reduced gardens survived only as Standard Yard. The public houses are buildings fronting onto Gray's Inn Road. The Ordnance Survey Town Plan for 1877-8 (not reproduced) shows a similar situation.

2.4.11 The next substantial change to the site occurred with the construction of Holborn Town Hall which opened in January 1880. The building occupied the northwest part of the site (today 100 Gray's Inn Road), replacing the earlier terraces. Plans of the hall from 1906 show that it consisted of several halls fronting onto Gray's Inn Road and Clerkenwell Road, with a tower at the corner, and an open courtyard behind.

2.4.12 Behind the town hall most of the buildings had been demolished and an open courtyard reestablished. At the southern end of the site, Black Bull Yard, Red Lion Yard and their surrounding buildings had been demolished and replaced by a single rectangular building surrounded by open space: Passages through the terraces to the open courtyard are clearly shown and the southernmost is probably the modern passage to 88 Gray's Inn Road today. In the wider area Liquor Pond Road and King's Road had been substantially redeveloped into Clerkenwell Road and Theobald's Road.

2.4.13 By the Ordnance Survey 3rd edition 25":mile map of 1916 (not reproduced), the

rectangular building at the southern part of the site had been removed, and the building on the site of 127 Clerkenwell Road had been extended into the courtyard behind, leaving a small court or light well accessed by a covered archway: east of the site, the Brewery had been replaced by the Bourne Estate.

2.4.14 A warehouse (presently 88 Gray's Inn Road) was constructed between 1968 and 1975, and the old town hall was demolished and the present buildings, 100 Gray's Inn Road and 127 Clerkenwell Road, constructed on the Site. There have been no changes within the site since that date.

2.5 Quantification of the archaeological resource

2.5.1 The site is located on the western side of the Fleet valley and the underlying natural topography is likely to reflect the present topography., with higher areas of gravel existing to the west of the site sloping down to the east towards the River Fleet. It comprises Lynch Hill Terrace gravels overlying London Clay.

2.5.2 A Geotechnical investigation carried out on the site (GEA 2022) recorded the surface of the gravels at 17.14m OD, 4.20m below ground level at 127 Clerkenwell Road in the eastern part of the site. In the 100 Gray's Inn Road basement, the surface of the gravel was recorded from 16.71m OD to 17.14m OD, between 1.2m and 1.5m below slab level. London Clay was recorded to depths of 4.30m and 7m (from a maximum height of 13.89m OD and 14.34m OD respectively). This is consistent with the results of the evaluation which recorded gravel at 17.16m OD in Trench 1 (1.11m below slab level) in the northern part of the site.

2.5.3 The evaluation demonstrated that below the existing basement slab (c 0.50m thick, the highest surviving medieval/post-medieval deposits lie at 17.60m OD (Trench 1). Structural remains comprising a 19th century foundation was recorded at 17.54m OD (Trench 2)

2.5.4 Quantification of the archaeological resource attempted in the previous *Archaeological desk-based assessment* (MOLA 2022) and *Archaeological evaluation report* (MOLA 2023b), can now be matched against the current proposal for the new basement, enabling works and foundations for the new development. The following quantification of the archaeological resource only includes horizontal deposits and there will be potential additional deposits in pits, wells and other deep cut features that penetrate the underlying natural sand and gravel.

2.5.5 Reference to the results of evaluation Trenches 1-3 suggests that stratified archaeological deposits between 0.5m and 0.8m thick survive in the proposed strip-map sample excavation area below the existing basement slab, within the footprint of the proposed new basement. The top of the archaeological sequence is likely to be located at *c* 17.60m OD, sealed below *c* 0.65m of modern consolidation deposits and the concrete basement slab. Whilst there is no borehole data for the courtyard area to the rear of 100 Gray's Inn Road, current slab level lies at c 20.6m OD, suggesting that there is good potential for the preservation of archaeological deposits.

2.5.6 At 127 Clerkenwell Road, the GI borehole survey (GEA 2022) recorded up to 2.30m of 'made ground' above the natural gravels. Whilst the upper levels of this deposit most likely comprise modern deposits, potential archaeological deposits of interest may be preserved above the natural gravels which will be impacted by piling works.

2.5.7 The impact of the proposed basement works will be to remove all archaeological deposits within the basement footprint to formation level of the basement, to c 16.90m OD stepping down to c 16.10m OD.

2.5.8 The excavation area is located outside the areas of greatest truncation caused by the construction of the former Holborn Town Hall on the Gray's Inn Road frontage where

is the greatest potential for deposit survival, however, archaeological deposits will have been impacted during drilling of the piles of the current building (shown on Fig 3) which will have removed all archaeological deposits within their footprints.

2.5.9 It is likely that the excavation area will reveal similar archaeological remains to those recorded in Trenches 1 to 3, comprising late medieval and post-medieval deposits and features, the latter associated with the urban development of the site from the 17th century. In addition to the horizontal deposits and structural remains recorded, there may be 16th century quarry pits, as recorded at Panther House 70m to the north of the site, dump deposits and field/agricultural features such as field boundaries and ditches, structural remains comprising the footings of the 17th -18th century-buildings fronting on to Gray's Inn Road and Clerkenwell Road (formerly Liquor Pond Street), and associated features such as garden soils, pits, cesspits, soak-aways and property boundaries located in the yards to the rear of the properties. Foundations associated with 19th century Holborn Town may also be encountered.

2.6 MOLA team and other responsibilities

2.6.1 In the document below the following terms should be understood:

2.6.2 *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.

2.6.3 *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.

2.6.4 *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.

2.6.5 *Archaeologists* - MOLA excavation staff responsible on site for archaeological excavation.

2.6.6 *Field Services Operations Manager* - MOLA office based manager responsible for allocation of staff and supply of equipment and resources.

2.6.7 *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.

2.6.8 *Finds and Environmental specialists* – MOLA (or external) specialists appropriately qualified to record, analyse and report upon artefacts and environmental remains from archaeological sites.

2.6.9 *Principal Contractor* - appointed directly by the Client with overall responsibility for site Health and Safety under CDM regulations.

2.6.10 *Attendance Contractor* - the contractor responsible for providing such attendances to MOLA as are deemed necessary to carry out their archaeological work (see section 8.3). 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.

2.6.11 *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.

3 Objectives of the watching brief

3.1 Site specific considerations

3.1.1 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.

3.1.2 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.

3.1.3 Bulk finds (Museum of London 2009, 48) will not necessarily be recovered in the watching brief areas, but may possibly be required in special circumstance (such as if a very rare and important social history assemblage of post-medieval mineral water bottles were recovered from the known factories around Brimmington Park). The MOLA Site Supervisor may choose to collect finds from specific features where possible if they are required to help date or interpret them, and any finds of specific and unique intrinsic interest may be retained. The MOLA Site Supervisor may choose to seek advice from MOLA Finds and Environmental Specialists as appropriate. See section 3.3.

3.1.4 Where an agreed area is set aside for 'controlled excavation' the terms of limitations of paras 3.1.2, 3.1.33.1.1 and 3.1.314.1.4 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 universal guidance for excavation (2023c) and for the Collection, Documentation, Conservation and Research of Archaeological Materials (2014a).

3.1.5 The Council's Archaeologist may decide that an additional WSI, or at least a supplement to the present document, is also required.

4 Objectives of the archaeological investigation

4.1 Site specific objectives and research aims

4.1.1 The excavation and research 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' (MOL 2002) and 'A strategy for researching the historic environment of Greater London' (MoL 2015).

4.1.2 The following research objectives have been compiled after consultation with appropriate experts, and in particular on consideration of the results of previous archaeological investigations both on the site and on other sites in the area.

Natural topography and the prehistoric environment

4.1.3 What is the natural topography in the eastern area of the site, and how does this relate with that recorded elsewhere on the site?

Roman

4.1.4 Is there any evidence for Roman presence associated with the Roman road thought to run east-west approximately 15m south of the site? If so, what is its context and the likely date range?

Medieval

4.1.5 What evidence is there for the 16th century quarrying observed at Panther House 70m to the north of the Site?

4.1.6 What is the character and date of the undated deposits overlying the natural, as observed during the evaluation?

Post-medieval

4.1.7 What is the evidence for the 17th-18th century properties fronting Gray's Inn Road, as shown in the historic mapping?

4.1.8 Do external deposits and features such as cesspits and wells associated with early urban development of the Site survive, and do they preserve palaeoenvironmental and finds assemblages which can be used to elucidate the domestic activities of 17th-18th century London?

4.1.9 What evidence is there for the 16th-19th century Black Bull Inn in the southern part of the Site?

4.1.10 What can the combination of documentary/cartographic research and fieldwork results (stratigraphic, environmental, and finds) tell us about the character of post-medieval occupation and activity in this area? Can individual wells/cesspits/soakaways be linked to particular domestic or public buildings?

4.1.11

4.2 Variation to site specific research priorities

4.2.1 Any changes to the Research Priorities above will be further to the process set out in Section 13 Appendix 3.

5 Site specific methodology

5.1 Background

5.1.1 A unique site code (GAI23) has been agreed with the Museum of London Archaeological Archive (LAA).

5.1.2 Unless otherwise stated below, the generic terms in Appendix 4: generic 'controlled excavation' procedures are applicable and details the archaeological methodology that will be carried out on site.

5.2 Strip-Map-Sample excavation ('digging')

5.2.1 A strip, map and sample exercise is proposed for the central portion of 100 Gray's Inn Road, within the footprint of the proposed basement. The mitigation area captures the features identified in evaluation Trench1 and Trench 2, and extends across the historic courtyard area around Trench 3. The SMS trench will be orientated roughly north to south measuring *c* 15m by *c* 26m at the top of the trench. If excavation below 1.2m depth is required, the trench edges will be stepped to reach a maximum depth of *c* 2.4m below basement level.

5.2.2 The SMS excavation will proceed to completion prior to the main enabling works or other ground works in that area. The site-specific approach to excavation and the sequencing of the works is described below. The works will be undertaken as follows;

5.2.3 The strip-map-sample will consist of a controlled archaeological investigation. This work will be undertaken in a single phase of work with no standdowns occurring due to spoil management or other site activities The location of the strip-map sample area is shown on Fig 2.

5.2.4 Machine ground reduction will be monitored by a MOLA Senior Archaeologist, from a safe position as instructed by the Principal Contractor. This will include the removal of 19th and 20th-century demolition layers under the supervision of the Senior Archaeologist.

5.2.5 Ground reduction will continue until the first features of archaeological interest are encountered, as indicated by MOLA to the Principal Contractor. The extent of the feature(s) may be defined by further machining under MOLA supervision.

5.2.6 A safe working area will then be demarcated as an exclusion area and barriered off from the non-MOLA works, while a controlled archaeological excavation is carried out. Once the area has been cleaned back manually by the archaeologists the archaeological features will be 'mapped' - photographed and drawn, and 'sampled'- partially excavated; and recorded.

5.2.7 Horizontal layers such as garden soils and cut features such as pits, ditches, wells, cesspits, soak-aways, as well as structural features such as walls and foundations are likely to form the main focus of the strip-map-sample work. These features will be sampled with percentages as shown below.

5.2.8 Where features are half- or quarter-sectioned as below MOLA will normally draw a sketch section on the context sheet. Where appropriate, (normally for larger features or significant ones) scaled 1:10 or 1:20 sections will be drawn.

5.2.9 Artefacts and ecofacts (eg animal bone, shell) from the fills of features will be collected as normal. After hand cleaning, and recording, bulk samples can then be

taken.

5.2.10 This process will be repeated until natural gravels are reached across the whole area, and any further archaeological features cut into it have been dealt with.

5.2.11 Once archaeological work has been completed in the working area, it will be handed back to the Principal Contractor

5.2.12 Excavation methodology will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.2.13 In general, the percentage excavation per feature (unless stated otherwise above) will be as follows.

Feature Type	Minimum percentage of each example
Stake-hole	100%
Post-hole or pit (less than 1.5m)	50%
Pit (greater than 1 .5m)	25%
Linear feature (less than 5m)	20%; all termini and intersections will be excavated
Linear feature (greater than 5m)	10%; all termini and intersections will be excavated
Deposits relating to funerary activity (unlikely to be encountered) (e.g. burials, cremation deposits)	100% (subject to agreement with curator)
Deposits relating to domestic/industrial activity (postholes, hearths, floor surfaces/floor makeup deposits)	100%
Agricultural pits and features	25%
Agricultural linear features (e.g. ditches/gullies, paths/tracks	20% for prehistoric features 10% for Roman and later features. All termini and intersections will be excavated

5.3 Watching brief

5.3.1 An archaeological watching brief will be maintained on the contractors ground reduction works and piling works. The watching brief will focus on recording the full extent (in depth) of late medieval deposits and features predating the urban development of the site and features associated with the 17th-19th century development of the site.

5.3.2 Initial breaking out and/or ground clearance by the Principal Contractor will be

monitored by MOLA staff.

5.3.3 A MOLA Site Supervisor will monitor the work and record any archaeological remains revealed 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 2023b).

5.3.4 An enhanced watching brief- with provision for archaeological excavation will be maintained on basement ground reduction and shaft excavation in the courtyard area to the rear of 100 Gray's Inn Road, shown on Fig 2. In areas of archaeological interest, the excavation and removal of deposits by the Contractor will, as far as possible, proceed according to the reasonable advice and guidance given by the attending archaeologist.

5.3.5 Subject to 5.3.4 above, some areas might need to be re-scheduled in order to provide a safe environment for archaeological recording.

5.3.6 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 and any 'controlled excavation' deemed necessary under para 3.1.4, within identified constraints such as road closures.

5.3.7 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 LPA and their Archaeologist. It will be necessary to ensure that adequate security is provided.

5.3.8 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.

5.4 Site survey (Geomatics)

5.4.1 Survey methodology will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.4.2 A baseline will be established by the archaeologists in the excavation area and then picked-up by MOLA's Geomatics Team. Alternatively, or additionally, simple individual structures may be recorded directly by the surveyors. All points recorded will be tied into OS coordinates.

5.5 Written records

5.5.1 Creation of written records will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.6 Drawn records

5.6.1 Creation of drawn records will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.7 Photographic records

5.7.1 Use of photography will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.8 Use of archaeogeophysics

5.8.1 Use of archaeogeophysics will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.9 Use of computers

5.9.1 Use of computers will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.10 Documentary research

5.10.1 Documentary research will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.11 Artefacts and ecofacts from site

5.11.1 Sampling and retention of artefacts and ecofacts from the site will be as set out in Section 14, Appendix 4: generic 'controlled excavation' procedures.

5.12 Environmental Sampling

5.12.1 The Project Manager and Site Supervisor will be responsible for ensuring the following procedures are employed.

5.12.2 The environmental sampling is expected to focus on sampling pits, such as those as seen in the previous evaluation. But may also include ditches, wells, cesspits refuse pits and quarry pits.

5.12.3 Ditches and cess/refuse pits will be sampled by taking 40l bulk samples from each use and disuse context.

5.12.4 For other features, different sampling approaches will be used as appropriate including bulk sampling, hand collection, and possibly column or monolith sampling. Sampling will be carried out, where possible and appropriate, in accordance with the procedures of the Archaeological Site Manual (MoL 1994). Sample size will be based upon the reason for collecting the sample. Normally 40 litres for a 'general' bulk sample or 20 litres for a 'specialist' waterlogged sample for palaeoenvironmental analysis only. Some deposits might thus require both types of sample and this will be established through liaison with MOLA environmental archaeologists.

5.12.5 Animal bone will be collected by hand, and this will supplemented by the residues from bulk environmental samples

5.12.6 Human burials are unlikely to be present, but if so will be recovered individually, with the separate parts of the body (ie right arm, torso, left leg etc.) bagged separately on site. Samples will be taken for analysis of the abdominal area if soil conditions are wet or moist, and there is minimal chance of contamination from

other burials or deposits. Control samples will also be taken by consultation with the appropriate specialist. Cremations will be excavated in consultation with specialists, and will often be lifted within their urns for excavation by specialists in the laboratory.

5.12.7 Environmental procedures will be monitored throughout the excavation, and modified where necessary, eg after the discovery of unexpected features or deposit types, after consultation between the Project Manager and/or Site Supervisor, the appropriate specialist and the Borough Archaeologist. In some circumstances advice may also be sought from the English Heritage Regional Science Advisor.

6 Finds, archive and storage

6.1 Ownership of finds

6.1.1 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 the finds to the Museum of London, to enable that body to carry out its obligations to curate the finds after discovery, in perpetuity, as part of the archaeological Archive from this site.

6.1.2 These approvals, licences and permissions shall be *either* confirmed in the Agreement and Contract regulating the archaeological works *and/or* confirmed by the completion of the relevant Deed of Transfer form (draft appended).

6.1.3 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.

6.1.4 Notwithstanding the above, subsequent arrangements may be made if required between the landowner and/or the client and the Museum for the conservation, display, provision of access to or loan of selected finds in or near their original location.

6.2 Interim storage and processing facilities

6.2.1 Prior to final Deposition of the Archive, the storage and processing facilities available to MOLA are as follows:

6.2.2 Both long- and short-term storage of excavated finds and samples at the MOLA's premises at 46 Eagle Wharf Road, London, N1. These premises meet the *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission 1992).

6.2.3 Paper and digital records are initially stored in appropriate environmental conditions at MOLA's offices at Mortimer Wheeler House. The building has 24-hour security.

6.2.4 Cold and wet storage as appropriate for organic finds and samples. MOLA uses several freezers and refrigerators for cold storage. Wet storage is provided by versatile, water-filled scaffold tanks, which are well-sealed to prevent contamination.

6.2.5 Both dry and wet processing facilities are available at the MOLA buildings at Eagle Wharf Road. Wet processing equipment includes power spraying units, sieving apparatus and flotation tanks.

6.3 The project archive

6.3.1 The Project Archive will include all materials retained (or the comprehensive record of such materials as referred to above) and all written, drawn and photographic records relating directly to the investigations undertaken. It will be quantified, ordered, indexed and internally consistent before permanent transfer to the Museum of London.

6.3.2 Finds and records will be curated and be made 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),
- Chartered Institute for Archaeologists, By-Laws, Standards and Policy Statements of the Chartered Institute for Archaeologists, Standard and guidance: the creation, compilation deposition and transfer of archaeological archives (CIfA 2014a).

6.3.3 Copyright of the written archive will be vested in the Museum.

6.3.4 The archive will be presented to the archive officer or relevant curator of the Museum of London following the completion of any publication work (unless alternative arrangements have been agreed in writing with the Local Planning Authority).

6.3.5 A Digital Management Plan (DMP) which outlines the types of data created during the archaeological works and how they will be managed at this stage, stored, accessed and archived is included in Appendix 5. The DMP can be updated to reflect any changes which may occur during the project delivery stage.

7 Post-excavation reporting and dissemination

7.1.1 Following the completion of field work, the initial post-excavation assessment of the site records and finds will lead to a *Post-excavation assessment report and Updated Project Design* in accordance with Historic England's 'Management of Research Projects in the Historic Environment (MoRPHE), PPN 3: Archaeological Excavation' (Historic England 2008).

7.1.2 In addition to this technical report, which MOLA is obliged to prepare, an additional interim report giving an overall view of the project and its results in non-technical language may be prepared and issued to the client and other relevant parties on or before completion of the post-excavation assessment.

7.2 Publication/dissemination

7.2.1 In all cases a short summary of the results of the work will be submitted to the Greater London HER and NAR (using the appropriate OASIS archaeological report form), and for publication in the 'Excavation Round-up' of the *London Archaeologist* and other period-based archaeological journals as appropriate.

7.2.2 GIS data will also be made available to the GLHER.

7.2.3 Where potential for further archaeological work is identified and detailed proposals for this set out in the *Post-excavation assessment and Updated project design*, further analysis and research may also be required, leading ultimately to publication in either a dedicated site-based monograph report (produced by MOLA), or in one of the relevant national or period-based archaeological journals or regional journal within five years (or as near as possible subject to availability of space in appropriate journal) of the completion of fieldwork on site.

7.2.4 The client has been made aware that completion of any such further analysis, publication and archive work recommended in the post-excavation assessment report is a necessary part of the fulfilment of the planning condition and that additional, as yet undefined, resources will need to be made available to achieve this.

8 Programme and staffing

8.1 Field programme

8.1.1 The start date for the archaeological works is expected to commence on 1st July 2024, with a watching brief on enabling works in the 100 Gray's Inn basement, followed by the strip-map-sample excavation. The timeframe and resource schedule for the works is as follows.

- Strip-map-sample excavation: 3 weeks with supervisor and up to 6 staff
- Watching brief on ground reduction and piling works at 100 Gray's Inn Road: Duration dependant on contractors work programme. Anticipated to require 1 supervisor to monitor the works, with additional staff called in as required.

8.1.2 Time required for any engineering or enabling works including slab and overburden removal before access to the areas is available will not be taken out of the archaeological excavation period.

8.1.3 The time needed for watching briefs on the piling, temporary or enabling works as specified will be dependent on the programme of the Principal Contractors. The archaeological monitoring will be undertaken by a Site Supervisor with assistance from a second member of staff if required , and will last for the duration of such works. Attendance for such watching briefs will sometimes be intermittent at the discretion of the Site Supervisor.

8.1.4 If unforeseen engineering or health and safety problems should arise, or if extensive, significant deposits are found to survive in the area which cannot be satisfactorily excavated and recorded in this period, then there should be sufficient flexibility within the programme and resources to enable the deposits in question to be excavated and recorded to the satisfaction of the Local Planning Authority's designated representative/advisor. The exact details of time, areas and numbers of staff involved would be agreed in discussions between representatives of the developer and/or their agents, MOLA and the Local Planning Authority's designated representative/advisor.

8.2 Post-excavation programming

8.2.1 The time required to complete the *Post-excavation Assessment Report*, including an Updated Project Design will depend on the volume of records generated during the excavation.

8.2.2 The report will be completed and submitted to the local planning authority's archaeological adviser/officer for consideration and agreement within 12 months of the completion of fieldwork unless otherwise agreed in writing by the planning authority.

8.2.3 The results of any evaluation, and/or any other previous archaeological work on the same site, will be combined in the post-excavation assessment programme.

8.2.4 The *Updated Project Design* will include an agreed timetable for completing a program of analysis, publication and archiving which will then be implemented to fully satisfy the planning condition.

8.3 Attendance requirements

8.3.1 This section provides a summary of likely attendance requirements to be provided

for MOLA by the site Attendance Contractor during the archaeological excavations.

8.3.2 If necessary, these will be revised in light of on-going discussions on excavation methodology. The section is based on standard MOLA procedures, adapted to meet the particular requirements of the project.

8.3.3 The Attendance Contractor will be employed by the client

8.3.4 As part of the **site preparation** works, the slab and overburden will be cleared in sections and modern intrusions/foundations removed where appropriate. The **slab removal** will be undertaken by the client's Attendance Contractors using machines under the supervision of the Site Supervisor. The contractors will comply with all reasonable requests by the Site Supervisor, who will be authorised to decide which modern features are removed or left *in situ* to reveal or protect archaeological features.

8.3.5 After the completion of site preparation works there will be a '**hand-over meeting'** to ensure that the on-site conditions are acceptable to the MOLA Project Manager and MOLA Health and Safety Compliance Manager.

8.3.6 **Safe access** routes will be installed prior to the excavation, and to be maintained throughout the period of the excavation by the Attendance Contractor. Handrails and ladders will be provided as required. Standard Youngmans or duckboards will be required to construct walkways which can be altered as the excavation progresses. Safety guard-rails and suitable access points into the site and areas of excavation, away from any site traffic and machinery.

8.3.7 **Shoring** in all localised excavations which exceed 1.20m in depth, and in those of less than 1.20m which are judged unstable, installed in accordance with Safety Regulations and maintained throughout the occupancy of the area in question. Note that where mechanical or electric hoists are to be used, MOLA Health and Safety policy requires staff working in shored shafts of 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.

8.3.8 **Lighting**: lamps (or equivalent 'daylight' lighting) may also be required to enable work to continue to the end of the normal working day. If necessary, lamps (500W minimum) with 110-volt transformer, adequate cabling, and power supply.

8.3.9 In addition to welfare facilities (section 14.3) MOLA will need limited **'office' space.** MOLA's job on site includes the physical excavation of spoil and the creation of written and drawn records. This requires intermittent use of indoor space with desks and chairs (and electricity, lighting and heating). For archaeological teams comprising five or more, the standard ratio is 4:1; that is for every 4 field staff, including supervisors, one needs to be inside creating or checking records. Two archaeologists can share one standard desk but it is not appropriate for the work space to be shared with canteens or other contractors.

8.3.10 **Attendance labour** will be required to carry out the removal of **spoil** off site (as a guide, a ratio of *c* 1 labourer to 3 archaeologists has been found workable in the past). Appropriate machinery (hoists, dumpers, skips, buckets, diggers, conveyer belts etc) may also be required from the Attendance Contractor. The process of removal of spoil from site must not slow down archaeological progress.

8.3.11 If ground-water is encountered in the trenches, adequate **pumps** with generating equipment if needed will be required to remove it in order to complete the excavations.

8.3.12 A suitable **security** system to operate overnight, weekends and holidays. Normally this means adequate hoarding/Heras fencing and locks.

8.3.13 Effective channels of **communication**, including a designated supervising engineer and/or client's project manager to liaise with the Site Supervisor and Project Manager from MOLA. A designated agent will be necessary to implement agreed attendances.

8.3.14 Where archaeological remains are to be preserved *in situ* adequate **protection** will be supplied by the Attendance Contractor. 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.

8.3.15 **Plant operators and the following plant:**

- A mechanical tracked excavator with a breaker, toothed bucket and a large toothless ditching bucket for site clearance.
- A small machine (eg a Kubota) to assist the initial clearing work, particularly for use in restricted conditions (eg emptying out small intrusions);
- Kangos or hammers with compressors to remove small obstructions during the course of the excavation.

9 Funding

9.1.1 Funding arrangements for the excavation have been sought between MOLA and the developers/client, together with agreements for attendance requirements, accommodation and facilities required. It has been agreed that the developer will fund the on-site works up to the *Post-Excavation assessment* stage as defined by as per Historic England's 'Management of Research Projects in the Historic Environment (MoRPHE), PPN 3: Archaeological Excavation' (Historic England 2008) and as described in this document.

9.1.2 Additional costs for the later analysis/publication programme will be confirmed following the completion of the *Post-excavation assessment report and Updated project design*, and the client is aware of this eventuality.

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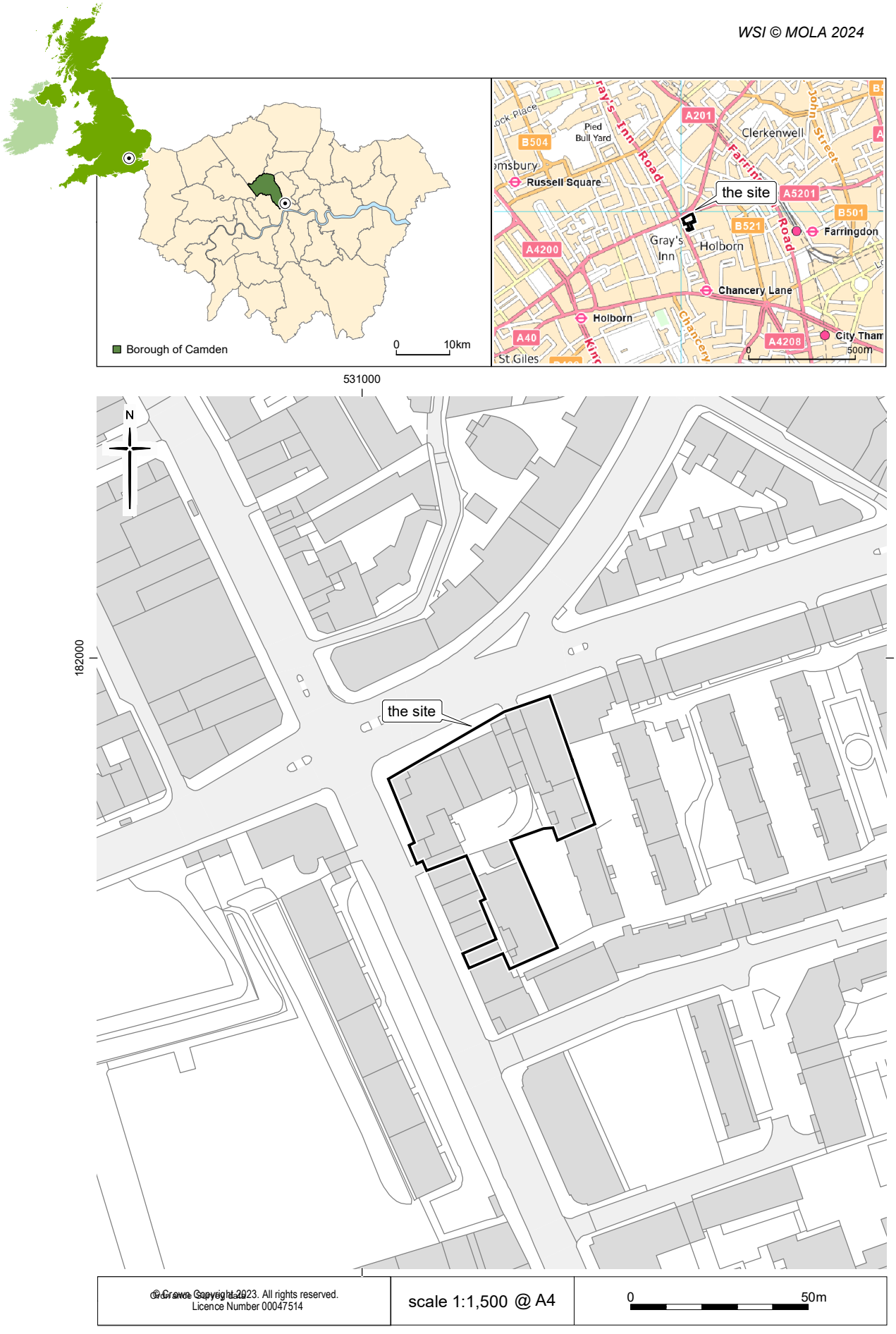


Fig 1 Site location

Note:
1. Beams which are 320mm deep or shallower are to be half-lapped with any incoming CLT
2. Timber Structure shown for information only
3. All structure in joisted area including perimeter to be fire boarded

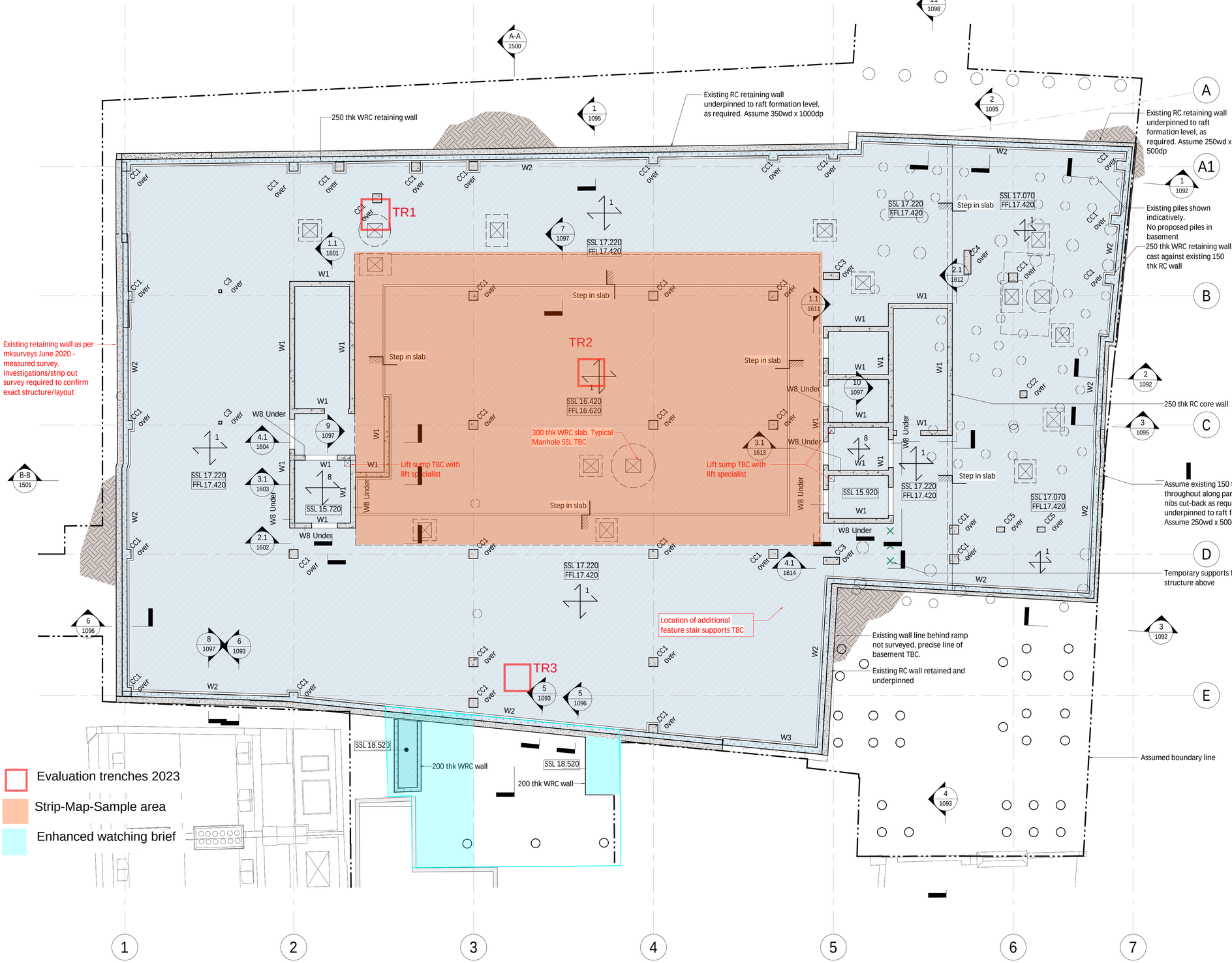


Fig 2 Strip-map-sample excavation and enhanced watching brief areas in the proposed basement plan

Rev	Date	By	Eng	Amendments
T2	17.04.23	SH	PL	Enabling Tender
T1	31.03.23	SH	PL	Enabling Tender

Beam Schedule

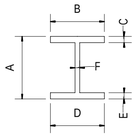
B1	100x100x10 EA fixed to perimeter
B2	SHS150x150x10
CB2	800dp x 600wd RC beam
DJ	2No 200dp x 50wd timber joists bolted together to form double joist trimmer
TB1b	240d x 320/400w Glulam T beam GL28h
TB2a	640d x 360/400w Glulam L beam GL28h
TB3b	560d x 760/840w Glulam T beam GL28h
TB4b	560d x 520/600w Glulam T beam GL28h
TB5	320d x 600w Glulam GL28h
TB6b	560d x 420/500w Glulam T beam GL28h
TB7b	440d x 280/360w Glulam T beam GL28h
TB8a	560d x 480/520w Glulam L beam GL28h
TB8b	560d x 440/520w Glulam T beam GL28h
TB9	320d x 240w Glulam GL28h
TB9a	320d x 200/240w Glulam L beam GL28h
TB11	680d x 360w Glulam GL28h
TB12	320d x 400w Glulam GL28h
TB12a	320d x 360/400w Glulam L beam GL28h
TB12b	320d x 320/400w Glulam T beam GL28h
TB13b	560d x 600/680w Glulam T beam GL28h
TB14b	640d x 440/520w Glulam T beam GL28h
TB15a	600d x 360/400w Glulam L beam GL28h
TB16a	640d x 200/240w Glulam L beam GL28h
TB17a	440d x 210/250w Glulam L beam GL28h
TB18	360d x 600w Glulam GL28h
TB Special	Roof Special Timber Beam
TJ	3No 200dp x 50wd timber joists bolted together to form double joist trimmer

Column Schedule

C2	UC254x254x107	CC6	350 x 1720mm RC40/50
C3	SHS150x150x10	TC1	520 x 520mm GL28h
CC1	450 x 450mm RC40/50	TC2	240 x 600mm GL28h
CC2	350 x 350mm RC40/50	TC3	400 x 400mm GL28h
CC3	350 x 810mm RC40/50	TC5	240 x 440mm GL28h
CC4	350 x 1200mm RC40/50	TC6	440 x 440mm GL28h
CC5	250 x 400mm RC40/50		

Fabricated Beam Schedule

Beam Ref:	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (kg/m)
FB1	600	600	50	600	50	40	650.00



Floor Schedule

Concrete Floor	Profiled deck	Timber Floor
1	650 thk WRC raft slab on 50 thk blinding and 150 thk compacted hardcore, into sands & gravels	
2	300 thk RC slab	
3	200 thk RC slab	
4	240 thk CLT/L7s-2	
5	200d x 75w C24 joists at 400 crs with 18 thk plywood screwed to top face of joists	
6	280 thk CLT/L7s-2	
7	240 thk CLT/L7s-2 and 160 thk RC cast on top of 500kPa insulation	
8	300 thk WRC slab	

Wall Schedule

Ref	Thickness and Type
W1	250 RC core
W2	250 WRC retaining wall
W3	325 WRC retaining wall
W4	200 WRC
W5	200 RC
W6	150 WRC Upstand
W7	200 RC Upstand
W8	<varies> <varies>
W9	250 RC

Legend

- Proposed RC structure
- Proposed WRC structure
- Proposed Steel Framing
- Dim — Red dimension TBC by architect
- ST — Connection Strengthening
- C — Crank
- S — Splice
- M — Moment connection
- TB — Thermal Break

100mm @ A1 (50mm @ A3)

1 This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

2 Do not scale from this drawing in either paper or digital form. Use written dimensions only. To check drawing has been printed to the intended scale the above bar should be 100mm

3 Any setting out dimensions shown in red are to be confirmed by the architect. All dimensions are to be checked by the contractor against site dimensions prior to fabrication /commencement of work on site. Beams and columns are to be centred on grid unless noted otherwise. Setting out of steelwork is shown to the centre of symmetric sections and to the back face of PFCs and RSAs.

Rev	Date	By	Eng	Amendments

HEYNE TILLETT STEEL
STRUCTURAL ENGINEERS
hts.uk.com

Job Name
100 Grays Inn Road, WC1X 8AL

Drawing Title
Proposed Basement Layout

Purpose of Issue **Tender** Scale at A1 **1 : 100**

Drg No 2423-HTS-00-B1-DR-S-1090

Rev T2

Fig 3 Indicative Strip-map-sample excavation in relation to previous trench evaluation in existing basement/building plan

Rev	Date	By	Eng	Amendments
T2	17.04.23	SH	PL	Enabling Tender
T1	31.03.23	SH	PL	Enabling Tender

100mm @ A1 (50mm @ A3)

1 This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

2 Do not scale from this drawing in either paper or digital form. Use written dimensions only. To check drawing has been printed to the intended scale the above bar should be 100mm long

NOTE:
All existing details shown are based on archive drawings and limited opening up works. Assumptions have been made regarding existing construction. Materials, construction, framing and spans of existing slabs and walls to be confirmed by site investigations.

Slab levels shown in red have been derived from assumed finishes and are to be confirmed by site investigations.

Existing Column Schedule

ec1	Existing 530 x 400 RC Column TBC
ec2	Existing 900 x 300 RC Column TBC
ec3	Existing 530 x 300 RC Column TBC
ec4	Existing 300 x 300 RC Column TBC
ec5	Extg 400 dia RC Column
ec6	Extg 500 dia RC Column
ec7	Existing 800 x 500 RC Column
ec8	Existing 700 x 500 RC Column
ec9	Existing 600 x 500 RC Column
ec10	Existing 490 x 490 RC Column
ec11	Existing 600 x 300 RC Column
ec12	Existing 390 x 390 RC Column
ec13	Existing 700 x 300 RC Column
ec14	Existing 600 x 250 RC Column
ec15	Extg 450 dia RC Column TBC

Existing Beam Schedule

eb1	500dp x 1000wd RC beam
eb2	800dp x 900wd RC beam
eb3	500dp x 800wd RC beam
eb4	675dp x 500wd RC beam
eb5	600dp x 500wd RC beam

Floor Schedule

Existing Floor	3	200 thk RC slab
Ex	E1	Existing 300 thk RC trough slab
	E2	Existing 225 thk RC slab
	E3	Existing 150 thk RC slab
	E4	Existing 300 thk RC slab TBC
	E6	Existing 250 thk RC slab

Existing legend

E	Existing RC floor as indicated on drawing
e	Existing timber joists, dimensions, crs and span as indicated on drawing.
	Existing structural walls
	Existing structure below
	Existing padstone, TBC on site

HEYNE TILLETT STEEL
STRUCTURAL ENGINEERS
hts.uk.com

Job Name
100 Grays Inn Road, WC1X 8AL

Drawing Title
Existing Basement Layout

Purpose of Issue **Tender** Scale at A1 **1 : 100**

Drg No 2423-HTS-00-B1-DR-S-0090

Rev T2

11 Appendix 1: project team members

11.1.1 The team members for the project are yet to be confirmed.

12 Appendix 2: Draft Transfer of finds ownership form

DATED

[ ]

-AND-

THE BOARD OF GOVERNORS OF THE MUSEUM OF LONDON

TRANSFER AGREEMENT
of Finds excavated at

Site Code

THIS TRANSFER AGREEMENT is made on the day of 20

BETWEEN: -

[ ], whose registered office is situated 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") and the Site Owner has granted a developer permission to undertake works on the site ("the Developer").

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 Agreement

each a "Party" and together the "Parties".

NOW IT IS HEREBY AGREED as follows: -

1. PREPARATION AND DELIVERY OF THE ARCHIVE

1.1 The Parties acknowledge and agree that the Developer shall:

1.1.1 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; and

1.1.2 prepare a full inventory of the items of archaeological interest discovered during the Excavation ("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 is content for the Museum in coordination with the Developer to arrange for delivery of the Finds, Finds Inventory and the Final Transfer Summary to the Museum without cost to the Site Owner, in accordance with the Museum's preferences as to the method and time of delivery.

1.3 In consideration of £1 (whether demanded or not) title to the Finds will, with full title guarantee, pass to the Museum on delivery of the Finds to the Museum in accordance with clause 1.2. Risk in the Finds will also pass to the Museum on completion of delivery of the Finds to the Museum in accordance with clause 1.2.

2. GENERAL

2.1 **Governing law and jurisdiction.** This Agreement 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 Agreement unless the Museum chooses to invoke, or voluntarily submits to, the jurisdiction of some other tribunal.

2.2 **Further assurance.** The Site Owner at its own expense shall, and shall use all reasonable endeavours to procure that any necessary third party shall, promptly execute and deliver such documents and perform such acts as may reasonably be required for the purpose of giving full effect to this Agreement and to cure any defects in the title to the Finds.

2.3 **Applicable laws.** The Parties agree to comply with all applicable laws. The Site Owner acknowledges that the Museum as a leading museum of the United Kingdom and centre of archaeological research encourages reporting of all archaeological material and compliance with the Treasure Act 1996 and Treasure Act Code of Practice both as amended from time to time, and where reasonably applicable agrees to facilitate the Museum in the aforementioned.

IN WITNESS of which the Parties hereto have signed this agreement on the date first written above:

Signed by ..... Name.....

Job Title…… Date ……..
for and on behalf of the **Board of Governors of the Museum of London**

Signed by ..... Name.....

Job Title…… Date ……..
for and on behalf of the **Site Owner**

13 Appendix 3: Management, delivery and quality control

13.1.1 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. The Registered Office is Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED). It has its own independent Board of Trustees but works in partnership with the Museum of London via a Memorandum of Understanding.

13.1.2 MOLA is a 'Registered Organisation' with the archaeological professional body, the Chartered Institute for Archaeologists (CIfA). The CIfA *Register* is a rigorous Quality Assurance scheme for archaeologists. In order to be accepted, MOLA has passed a Board resolution to comply with the CIfA Code of Conduct and Standards, to demonstrate that compliance through bi-annual re-registration, to submit to regular CIfA inspections, and to ensure that all MOLA activities are under the overall direction of a Member grade (MCifA) 'responsible post-holder'. The Registered Organisation scheme also provides procedures for investigating and handling of external complaints.

13.1.3 MOLA is currently working with a specialist consultant towards achieving an ISO9001 Quality Management standard (proof can be provided if required).

13.1.4 MOLA subscribes to and abides by the general principles and specific terms of the *Code of Good Practice On Archaeological Heritage in Urban Development Policies* established by the Cultural Heritage Committee of the Council of Europe, and adopted at the 15th plenary session in Strasbourg on 8-10 March 2000 (CC-PAT [99] 18 rev 3). In particular to the following points: ….*archaeologists shall be aware of development costs and adhere to agreed timetables* (Para 3 'The Role of the Archaeologist'), with all work *'carried out to written statements setting out standards timetables and costs'* (para 4 ibid).

13.1.5 MOLA further subscribes to and ensures that its activities comply with and/or are guided by the following policies, procedures and guidance:

- Appropriate local and regional planning authority archaeology guidance – eg for London: English Heritage Greater London Archaeology Advisory Service, *Standards for Archaeological Work*, 2015.
- Appropriate national professional standards eg Chartered Institute for Archaeologists *Guidance* papers (eg CIfA 2014a, 2014b and 2023b).
- Appropriate Archaeological Research Framework for the region – eg for London: English Heritage Archaeology Division, *Research Agenda* (1997); Museum of London, *A research framework for London archaeology (*2002); and *A Strategy for Researching the Historic Environment of Greater London* (MoL 2015).
- Historic England's 'Management of Research Projects in the Historic Environment (MoRPHE), PPN 3: Archaeological Excavation' (Historic England 2008).
- English Heritage Centre for Archaeology, *Guidelines* (various)
- CIfA *Toolkit for Specialist Reporting (CIfA no date)*
- National archive disposition standards including Museum and Galleries Commission, *Standards in the Museum Care of Archaeological Collections* (1992) and Society of Museum Archaeologists, *Towards an Accessible Archaeological Archive: the Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland, Scotland and Wales* (1995)
- Relevant local archive deposition standards, eg for London, Museum of London, General Standards for the preparation of archaeological archives deposited with the Museum of London (2009).

13.1.6 MOLA governance and organisational strategy are determined by the Senior Management Group (SMG), led by the CEO and comprising the Finance Director, Chief Operating Officer, and five other Directors. The SMG reports regularly to an independent Board of Trustees, who

oversee MOLA's performance and strategic direction. As a charitable company MOLA is monitored and regulated by the Charities Commission.

13.1.7 MOLA is structured to reflect its project orientation. One Director manages the Client Team of Project Managers (PMs). Individual PMs are responsible for developing new work for MOLA, and thereafter for designing, budgeting and delivering projects for clients. They remain the principal point of contact for the client for the duration of each project.

13.1.8 PMs drive projects through successive stages in accordance with client needs, forming **project** teams by drawing upon the skills available within MOLA Operations teams. PMs ensure that projects are completed to the highest standards within time and budget. Financial monitoring of projects against budget is undertaken by the Finance Director and PMs at monthly review meetings. Project management software is employed by MOLA Operations to plan resourcing and track and adhere to programme and budget. Project team meetings are held throughout the programme, allowing refinement of research strategies in the light of on- or off-site findings or analysis. Recording, excavation, and sampling strategies may be modified to provide optimum information retrieval in support of the research objectives. At post-excavation phase internal project management is normally devolved to a designated Post-Excavation Project Manager.

13.1.9 All archaeological field work is controlled and monitored on a day to day basis by the on-site Site Supervisor (SS), who reports to the designated Project Manager. Together with the Field Services Operations Manager and the Health and Safety Compliance Manager (responsible for Health and Safety) they also liaise as necessary with the client's agents and Principal Contractor regarding all enabling works and health and safety.

13.1.10 All written documentation, eg initial 'Written scheme of investigations' ('WSIs'), evaluation reports, post-excavation Assessment Reports and final publications undergo stages of internal review and sign-off prior to final issue to clients. For both field and reporting work PMs and SSs meet and liaise with the client and the Local Authority's archaeological advisor or officer to ensure delivery according to WSIs and to review progress, research aims, archaeological procedures, and site strategies as appropriate.

13.1.11 At all stages, what constitutes an appropriate archaeological response will be assessed against criteria of local, regional and national significance and within frameworks of valuable archaeological research topics identified in local or regional Archaeological Research Frameworks (where these exist).

14 Appendix 4: generic 'controlled excavation' procedures

Unless modified in Section 5 above the following apply to all MOLA excavations.

Overall standards

14.1.1 **General standards**: excavation strategy will be carried out in accordance with and/or guided by relevant standards and universal guidance given by the Chartered Institute for Archaeologists (CIfA 2023b), Historic England (GLAAS 2015) and other Historic England guidelines where appropriate.

Use of machines

14.1.2 **Initial site clearance** will include the emptying of modern backfill of the test trenches from previous phases of investigation work, and other modern backfilled features where these can be identified. This could be carried out by a small machine or narrow trenching bucket under MOLA direction, with final clearing by hand.

14.1.3 **Use of machines/hand excavation**: following removal of the slab and/or machine clearance, the areas which require examination or recording will be cleaned using appropriate hand tools. All investigation of archaeological levels will then be carried out by hand unless the use of machines is specifically requested by MOLA to remove certain layers or deposits.

Use of watching brief

14.1.4 '**Watching brief' is defined** as a MOLA Site Supervisor in attendance on the client's Principal Contractors' 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. Bulk finds will not be recovered in the watching brief areas, though finds of specific and unique intrinsic interest may be. Bulk finds (Museum of London 2009, 48) will not necessarily be recovered in the watching brief areas. The MOLA Site Supervisor may choose to collect finds/environmental samples from specific features, where possible, if they are required to help date or interpret them, and any finds of specific and unique intrinsic interest may be retained. This can be done in consultation with environmental and finds specialists.

Depth of excavation

14.1.5 **Deep modern foundations** may be left *in situ* during the excavation to avoid collateral damage to archaeological deposits and features. Shallow modern foundations which overlie archaeological deposits can be removed, either by machine, or if more appropriate, by hand.

14.1.6 **Deep archaeological features** such as pits and wells may require excavation to a greater depth than the general level of reduction required by the client. Agreement will be sought between the client, MOLA, the site engineers and the Local Planning Authority's designated representative/advisor on a case-by-case basis.

Site Handover

14.1.7 **Site start up handover**: controlled archaeological excavation will commence once all parties are satisfied that the breaking out is complete and a hand-over meeting has been agreed. Once MOLA has sole access to the prepared area an archaeological team will be mobilised to clean the entire area using appropriate hand tools.

Survey (Geomatics)

14.1.8 **General**: The MOLA Geomatics Team carry out site survey using differential GNSS / GPS and optical Total Station systems, as appropriate. Site control is tied into Ordnance Survey National Grid (OSGB36) and Ordnance Datum (OD), or client survey frameworks, as required. Site grids and baselines to be used for traditional site planning are similarly implemented and located using the most appropriate survey method, and are related to the required survey framework. Archaeological feature pick-up, and area or trench set-out, is by differential GNSS / GPS, or by optical methods. Laser-scanning survey is similarly tied into the OS framework.

14.1.9 ***MOLA Surveying Standards**:* Standards of precision and accuracy are derived from the accepted standards of accuracy as used by chartered surveyors and defined by the Royal Institution of Chartered Surveyors. The implementation and maintenance of survey standards within MOLA is the responsibility of the Geomatics Manager and the Geomatics team. MOLA Geomatics is responsible for the capture and processing of all survey data, both on and off-site.

14.1.10 ***Establishment and maintenance of Grids**:* Planned archaeological data will be recorded with reference to a horizontal MOLA site grid or to baselines, and a vertical temporary Ordnance Datum point, implemented and maintained by the Geomatics team. The Site Supervisor(s) will be responsible for relating all planned records to these.

14.1.11 ***Tying in to National Grid***: Sites where significant archaeological remains are uncovered will be tied in to the Ordnance Survey National Grid (OSGB36) by GPS or by establishing or tying-in to existing OS control networks. Tying site grids to features identified on OS mapping will only be used for sites without significant archaeological remains and where no qualitatively preferable survey solution is possible.

14.1.12 ***Direct data capture:*** Archaeological features recorded directly by GNSS/GPS will be automatically located in 3D in Ordnance Survey Grid and Datum coordinates. Trench or area locations set out using GNSS/GPS will similarly, be located in relation to Ordnance Survey coordinates. Laser-scan and digital photogrammetric surveys will be tied into survey control frameworks located in relation to Ordnance Survey Grid and Datum.

Preservation of remains on site

14.1.13 **Protection of remains**: where archaeological remains are to be preserved *in situ* they will be adequately protected from deterioration during the excavation. 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.

14.1.14 **Unforeseen remains:** on the discovery of unforeseen nationally or internationally significant archaeological remains a site meeting will be called immediately with the client, a representative of the LPA, a GLAAS Adviser and the Inspector of Ancient Monuments (if necessary) where a forward strategy for preservation *in situ* or excavation will be discussed, followed by revision/updating of the WSI (if necessary) and negotiations with funding agencies (if necessary) to achieve the agreed revised strategy.

Finds and environmental: retrieval, sampling and retention

14.1.15 **Sampling strategies and procedures** used on site will be documented and communicated to the whole project team. This will include a record of any alterations to these strategies after excavation has commenced.

14.1.16 Artefact and ecofact **data recovery** methods may include hand collection, metal detecting and both intentional and incidental collection through the application of sampling procedures, as defined below.

14.1.17 Different **sampling strategies** may be employed according to site specific research aims and the perceived importance of the deposits or features under investigation. Where appropriate alternative site specific sampling strategies will be agreed in advance by the Project Manager, Site Supervisor and relevant Finds and Environmental Specialists. Sample size will account for

the frequency with which material is likely to occur. Bulk environmental size will always be a minimum of 40 litres or 100% of the context/deposit if it is smaller following Historic England guidelines (2011).

14.1.18 All **retained finds and samples** will be lifted, cleaned, conserved, marked, bagged and boxed in a proper manner and to standards agreed with the Museum of London.

14.1.19 All environmental samples will be collected, labelled inside and outside the container and processed following Historic England guidance (2011) and to standards required by the Museum of London (2009).

14.1.20 **Finds and Environmental** work will normally be carried out by carried out by appropriately qualified and experienced MOLA Finds and Environmental specialists. Where external specialists are necessary, eg dendrochronology, relevant method statements will be supplied if requested. All work will be carried out in accordance with relevant CIfA standards and universal guidance (CIfA 2014a, 2014b, CIfA 2023b), and other established national guidelines (English Heritage 1998 /Historic England 2011).

14.1.21 **Human remains**: upon discovery, any finds of human remains will be left *in situ*, covered and protected. If removal is essential it can only take place under or with appropriate Faculty jurisdiction, Department of Justice (Coroner's Division) licence, current 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 site security is provided.

14.1.22 **Treasure**: 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.

14.1.23 There will be **regular liaison** and site visits between appropriate MOLA specialists and the Project Manager and/or Site Supervisor during the course of the excavation. On larger, or finds- and environmentally-rich sites, this may take the form of a MOLA Finds or Environmental Specialist working on site as part of the excavation team, or visiting regularly. The purpose of such liaison to provide the Site Supervisor and Project Manager with information they need to review and, if necessary, revise excavation and/or sampling strategies.

Archaeological monitoring

14.1.24 **Reasonable access** to the site will be granted to the representative/advisors of the Local Authority, who may wish to be satisfied, through site inspections, that the archaeological works are being conducted to proper professional standards and in accordance with this written scheme of investigation.

14.1.25 **Regular 'site monitoring' meetings** of the appropriate members of the project team and the Local Planning Authority's designated representative/advisor will be held to review research aims, archaeological procedures, and site strategies.

14.1.26 **Archaeological progress reports** will be produced by MOLA and made available to the Local Planning Authority's designated representative/advisor if requested.

Variation to research priorities and/or methodologies

14.1.27 **Research questions**: the overall site methodology and sampling strategy is primarily determined by the research questions set out in Section 3. These will be kept under constant review as set out in the next paragraph and will continue to drive site strategy and methodology during excavation.

14.1.28 **Resources**: within this framework the project team will carry through a process of continual assessment and prioritisation of research objectives, allowing informed decisions to be made regarding the optimum level of sampling of archaeological strata. These decisions will reflect the need to balance the recovery of valid archaeological data with prudent management of available resources, avoiding inappropriate cost.

14.1.29 **Variation**: Decisions made on these bases may result in the enhancement or simplification of recording systems as dictated by the evolving research framework.

14.1.30 **Agreement**: Where alternative approaches and methodologies are thought to be appropriate within the framework of the stated research objectives these will not be employed without consultation between the Local Planning Authority's representative/advisor, MOLA and the client or their agent.

Written records

14.1.31 Detailed, standardised **record sheets** will be completed in accordance with relevant CIfA standards and universal guidance (CIfA 2023b), and other established national guidelines.

14.1.32 Record sheets will be checked by the Site Supervisor and a relational **matrix** compiled. The inter-relating of these records, and the compilation of a Harris stratigraphic matrix during the course of the excavation, will be the central processes leading to an understanding of the site sequence.

14.1.33 **Computerised systems** of data capture and manipulation may be used wherever appropriate.

Drawn records

14.1.34 The immediate spatial relationship of features and layers to each other will be recorded by **planning**. Each of these plans will be located on the site grid. If appropriate direct digital data capture of contexts by GPS or total station and computerised data capture of context attributes may also be used.

14.1.35 **Digitisation** of selected drawn records will normally take place after field work is complete using AutoCad and may also be loaded into ArcGIS for analysis.

14.1.36 **Plan matrices** will be compiled to illustrate the relative stratigraphic positions of different features, using the 'Bonn' program or similar.

14.1.37 Detailed **elevations or sections** will also be drawn where appropriate.

Photographic records

14.1.38 The overall site record will include **photographs** made using, as appropriate, high end digital, 35mm, medium and large format cameras. The photographic record will illustrate all significant phases, structures, important stratigraphic and structural relationships, and individual items of interest, including artefacts.

14.1.39 All site photographs, except 'working shots', will include a **photographic scale** of appropriate size.

14.1.40 When film is used, originals will be archivally processed and stored, contact prints will be produced and mounted on contact cards. Cards will be returned to the site supervisors for annotation during the excavation programme. Colour transparencies will be mounted and stored in archival conditions.

14.1.41 A computerised **index** will be compiled, relating image number, site photograph number, context numbers, excavation area, and other relevant information.

14.1.42 At the request of the client a file of site photographs may be produced and copied digitally to DVD or similar for them.

Archaeogeophysics

Archaeomagnetic dating

14.1.43 Archaeomagnetic sampling may be carried out on suitable structures such as hearths and burnt floor surfaces.

Radiocarbon dating

14.1.44 Selective use may be made, where appropriate, of radiocarbon dating methods, particularly if potentially prehistoric material is recovered from aceramic contexts. MOLA will make use of external laboratories for dating.

Computing and electronic support

14.1.45 MOLA makes use of the latest digital operating systems, MSOffice applications, digital survey equipment, digital cameras, and CAD packages. These are upgraded continuously. Current details can be provided on request.

14.1.46 Our database structure has been developed specifically for archaeological data captured using the single context recording system. MOLA maintains and is continuously developing its sophisticated archaeological GIS. Details can be provided on request.

14.1.47 Security Backups of the entire system are done on a daily basis. All backup media is stored off site at a secure location.

Documentary research

14.1.48 Provision will be made for sufficient initial documentary research in order to enable the overall research aims to be realised. Further documentary research may be required during the excavation of the site to address particular structures or archaeologically identifiable properties. The final scope of additional research will be determined at the post-excavation assessment stage and be dependent upon the aims of the *Updated project design*.

Ceramic finds procedures

14.1.49 The Project Manager and Site Supervisor(s) will be responsible for ensuring that the following procedures are employed:

14.1.50 Pottery identified within single contexts will be hand collected.

14.1.51 Where partial sampling is carried out on key horizons ceramics will be collected from the sieved material.

14.1.52 MOLA pottery specialists will be consulted regarding unusual *in situ* groupings.

14.1.53 On pottery production sites a retention policy will be established in conjunction with relevant MOLA specialists, which will identify the best practice for that site, with regard to recording and retention of large groups of waste sherds.

14.1.54 Spot-dating of pottery will not usually take place until all finds processing has been completed. This is because best practice requires that *all* pottery from a finished context is viewed at one time. In certain circumstances it may be useful for the Site Supervisor to have access to dating information during the course of the excavation, and provisional date-ranges from specific contexts can be provided on request.

Building materials procedures

14.1.55 The Project Manager and Site Supervisor(s) will be responsible for ensuring that the following procedures are employed:

14.1.56 Building material identified within single contexts will be hand collected.

14.1.57 Mortar and *opus signinum* from structures will be sampled where appropriate.

14.1.58 Decorated mosaics will be lifted whole in consultation with MOLA conservators, but plain tessellated pavements will be sampled.

14.1.59 Painted wall plaster will normally be collected. Sampling may be appropriate, but only after consultation with the appropriate specialist.

14.1.60 Bricks: post-medieval bricks will only be sampled, though any unusual ones will be kept. Bricks of medieval date may be sampled if large quantities are present. Mud bricks may be sampled, although complete or unusual ones will be kept.

14.1.61 Where excavated buildings are being preserved *in situ* the building material will be studied *in situ* by a building materials specialist.

Registered finds procedures

14.1.62 The Project Manager and Site Supervisor(s) will be responsible for ensuring that the following procedures are employed.

14.1.63 MOLA conservation staff will be consulted on lifting procedures for delicate or fragile objects and may be on hand to lift objects themselves if required

14.1.64 All iron objects will be X-rayed with the exception of nails and slag, and then selected for conservation or scientific investigation as appropriate. Most copper-alloy objects will also be X-rayed. All coins are X-rayed as part of the conservation and dating process.

14.1.65 Selective artefact collection procedures may be considered following discussion between the Project Manager and/or Site Supervisor and the appropriate specialist.

14.1.66 Once finds have been taken from the site they will be recorded in Oracle using standard procedures.

Artefacts in wood/timber procedures

14.1.67 The Project Manager and Site Supervisor(s) will be responsible for ensuring that the following procedures are employed.

14.1.68 Wooden artefacts will be kept moist and supported to prevent collapse or decay. No biocides will be used at any time. Each individual artefact will be placed in its own bag or waterproof box.

14.1.69 Timbers with potential for dendrochronological analysis will be seen by a specialist on site prior to any conservation treatment taking place.

14.1.70 Large artefacts and 'special' timbers (eg with toolmarks, unusual joints etc) will be identified, recorded and where appropriate, dendrochronologically analysed prior to conservation treatment.

14.1.71 Structural timbers will be recorded and sampled quickly, following standard MOLA recording procedures and advice from specialists. Biocides will not be used. The Museum of London does not normally curate/conserve structural woodwork. Occasionally, the developer, client or another museum may wish to provide an alternative home for ancient structural woodwork.

14.1.72 The timber specialist will liaise with the Project Manager and/or Site Supervisor(s), and other specialists, to monitor on-site and assist with work as necessary.

Environmental archaeology procedures

14.1.73 The Project Manager and Site Supervisor(s) will be responsible for ensuring the following procedures are employed.

14.1.74 Different sampling approaches will be used as appropriate including bulk sampling, hand collection, column sampling, and monolith sampling.

14.1.75 Sampling will be carried out, where possible and appropriate, in accordance with relevant national guidelines, eg CIfA 2014b, English Heritage/Historic England 2011, and other Historic England guidelines.

14.1.76 Animal bone will be collected by hand, and this will be supplemented by material from wet-sieved residues and flotation residues from bulk environmental samples. Remaining sediment not required for flotation may be wet-sieved for animal bone and finds.

14.1.77 Human burials will be recovered individually, with the separate parts of the body (ie right arm, torso, left leg etc.) bagged separately on site. Samples will be taken for analysis of the abdominal area if soil conditions are wet or moist. Control samples will also be taken by consultation with the appropriate specialist. Cremations will be excavated in consultation with specialists.

14.1.78 Environmental archaeology procedures will be monitored throughout the excavation, and modified where necessary, eg after the discovery of unexpected features or deposit types, after consultation between the Project Manager and/or Site Supervisor and the appropriate specialist. In some circumstances advice may also be sought from an Historic England Regional Science Advisor.

Data Management Plan

14.1.79 A Digital Management Plan (DMP) which outlines the types of data created during the

archaeological works and how they will be managed at this stage, stored, accessed and archived is included in Appendix 5 below. The DMP can be updated to reflect any changes which may occur during the project delivery stage.

15 Appendix 5: Data Management Plan

Project details			
Project Name	100 Gray's Inn Road and 127 Clerkenwell Road		
Project Manager	Antonietta Lerz		
Project Site code	GAI23	ADS Ref	TBC
Accession Code	N/A	Oasis ID	TBC
Project covered stages	Excavation (Stage 2)		
Related Policies	CIFA DigDigital guidance, MOLA Forthcoming Digital Preservation Policy, DM01; MOLA Forthcoming Digital Data Selection, Appraisal and Discard Policy, DM08,		

Version control				
Version	Author(s)	Date:	Status	Summary of Changes
1	Antonietta Lerz	13.06.24	Draft	For comment

Data Collection/Creation	
Data to be Collected/Created	All file formats created will meet the standards set out in MOLA's Data Management Procedure and Fieldwork Manual. • The digital documentary archive for this phase of works will consist of: - Text: PDF/A documents comprising completed site report, WSI, Brief - Spreadsheets: extracted ORACLE data, including site records and registers - Survey data: GIS shp files - Illustration files: AutoCAD DWG, PDF/A, MapInfo files - Image files: JPEG and high quality non-proprietary raw files (DNG) /TIFF and - Metadata files for the above • On site recording of trenches, horizons, and archaeological contexts will be undertaken using a combined method of digital/paper records • The recording of all archaeological contexts encountered will be made as paper records on site. Digital registers will be made to record contexts, digital photos, samples, levels, burials, small finds, as appropriate. • Plans and sections will be hand drawn and created digitally during post excavation. All planning will be recorded digitally, and data will be stored as .shp or similar file types.

	Overall photographic shots of the site and each excavation area will be taken prior to excavation and after completion, with detailed shots being made of individual features and groups as appropriate. The photographic record will consist of high-quality digital uninterpolated images. Digital photographs intended for archive purposes will comply with best practice i.e. high quality non-proprietary raw files (DNG) or TIFF images.
How Data will be Collected/ Created	The data will be created according to MOLA's Fieldwork Manual, MOLA'S Data Management Procedure, and in accordance with project specific agreements within the Written Scheme of Investigation (WSI) and best practice guidance. Drawings, plans and sections will be drawn on 5m grid permatrace and then captured digitally during post excavation and added to the digital archive. The grid will be set up by MOLA Geomatics team using a Total Station. Total Station survey data and on-site drawings will be used to create digital illustrations using AutoCAD, ArcGIS, CorelDraw X7 and/or MapInfo software. File structure will be created automatically by Union Square Knowledge Management System and ORACLE CDE databasing. Version control will be managed by a strict file-naming structure and by Union Square Knowledge Management System's inbuilt version control manager.
Documentation and Metadata	
Metadata	Metadata will be created to the standard set out in MOLA's Data Management Procedure. Metadata tables will be updated throughout the course of the project and will be archived along with the digital data at the end of the project.
Documentation	The data will be accompanied by the site report, polyester film sheets, databases, survey data and processed illustrations as PDFs.
Ethical and Legal Compliance	
Data Security Issues	The dataset may contain commercially sensitive data. MOLA will not make data available to any persons outside of the approved MOLA project team without discussion and approval with the client. MOLA will communicate data and updates to the client who will be responsible for distributing any relevant data to any other third parties.
Intellectual Property Rights	The copyright of any written, graphic or photographic records and reports will be transferred to the Museum of London. The data and reports created by any external specialists will be MOLA Copyright; this will be managed through their contracts. Other data not owned by MOLA, such as OS data, HER datasets or historic maps, will be used under license.
Data Storage	
Storage and Backup	• Quality assurance processes will include regular review of the collected data on site. • Records will be checked in the office during post-excavation procedures. • MOLA will retain a back-up of the digital data of the project for a minimum of five years following the deposition of the site archive, in accordance with MOLA's Digital Management Procedure.

	• Paper archives and documentation will be deposited with the relevant Museum Archive • All data collected digitally will be backed up at the end of each day on the MOLA server.
Access and Security	• Data recording platforms used (including iPad Pro tablets, tabletop computers and laptops) will be password protected to prevent un-authorised access. • Data will be made available to the project team through the Union Square knowledge management system and controlled via password access, maintained and managed by MOLA IT support.
Selection and Preservation	
Selection	It is understood that not all data accumulated needs to be retained and deposited with the Archaeological Archives. The physical and digital archives will be constructed in accordance with local and national guidelines, and specifically with reference to MOLA's Physical and Digital Data Retention/Discard policies. Discarded data that has been identified for deletion will be recorded as such within the metadata and site records, as appropriate. A minimum this will include is: – All relevant on site and Post-excavation images – All relevant copies of on-site recording sheets (including any relevant sketches or explanatory notes) – All relevant survey data – All relevant copies of reports associated with the life of the project
Preservation Plan	The physical and digital archives will be constructed in accordance with local and national guidelines, and specifically with reference to MOLA's Physical and Digital Data Retention/Discard policies. Discarded data that has been identified for deletion will be recorded as such within the metadata and site records, as appropriate. The physical site archive for this phase of works will be temporarily stored at MOLA offices. Upon completion of full analysis, the physical project archive, and hard copies, will be deposited with the relevant Museum. The archive site code is (GAI23) and upon completion of full analysis, the physical archive, hard copy of the reports and paper records will be deposited with the Museum of London Archaeological Archive. The digital project archive, ORACLE database, digital photographs, survey data and metadata tables will be deposited with the appropriate repository in line with the MOL guidelines. Further archiving decisions will be made in discussion with the client, the Museum and London Borough of Camden's Archaeological Advisor GLAAS at the project completion stage.
Data Sharing	
Data Sharing Plan	During the project, site data is likely to be shared with the GLAAS and possibly the landowner or their representative. Photographs may also be

	shared. Site data may also need to be shared with external persons who will be given access to copies of data and not original documentation. The data generated from this project will be made publicly available through submission to the Museum of London Archaeological Archive. A digital report will be uploaded to ADS and an OASIS form will be submitted to the Online Access to the Index of archaeological investigations (OASIS). The file types submitted will comply with the designated digital repository guidelines in-line with the FAIR principles. Proposals for publication and dissemination of the archaeological remains are at this stage restricted to Grey Literature style report.
Data Sharing Restrictions	There are no known restrictions on the use of this data after project completion although data will be kept confidential during the project.
Responsibilities and Resources	
Responsibilities	A dedicated Digital Data Officer, the Project Manager and the Senior Archaeological Archivist are responsible for ensuring the data management plan is followed.
Resources	Guidance on digital data will be given throughout the project by the Chief Digital Officer, supported by MOLA IT and Geomatics staff. digital data collection techniques will be managed by MOLA. The costs of deposition of the digital archive will be covered within the project budget.
References	CIfA, 2014 Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives, Chartered Institute for Archaeologists Archaeological Archives Forum, 2011 Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation, Second edition Museums and Galleries Commission,1992 Standards in the museum care of archaeological collections Museum of London, 2009 General Standards for the preparation of archaeological archives deposited with the Museum of London Society of Museum Archaeologists, 1993 Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland United Kingdom Chartered Institute for Conservation, 1990 Guidelines for the preparation of excavation archives for long term storage

16 Health and Safety Risk Assessment and Method Statement (RAMS) note

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