

Blossom Street

14 Archaeology

Replacement Environmental Statement

Volume I

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Preface – Update 2015

- This replacement November 2015 Environmental Statement (hereafter referred as the 'November 2015 Replacement ES' or 'this Replacement ES') takes into account the design changes to the Blossom Street project (refer *Chapter 4: Proposed Development*) that have occurred since the submission of the application in December 2014 ES and concludes if any changes to the likely significant effects occur as a result of those changes. This Replacement ES consolidates the environmental assessment of the design changes into a single ES, presenting commentary (under the heading 'Update 2015') for the design changes in the March 2015 ES Addendum (the 'March 2015 ES Addendum') by blue text, and the design changes arising from the current design changes by red text. Where relevant, text removed will be denoted by strike-through, e.g. effect, and updated tables and figures will be denoted by the suffix 'A' (e.g. Table 2.10A).
- This Replacement ES adopts the following terminology to describe the development descriptions and design changes:
 - Proposed Development: description of the development presented in the December 2014 ES;
 - Revised Scheme: description of the scheme incorporating the design changes to the Proposed Development in March 2015 (the design changes referred as the 'March 2015 amendments'), assessed within the March 2015 ES Addendum;
 - Amended Proposed Development: description of the development incorporating the current design changes to the Revised Scheme (the design changes referred as the 'November 2015 amendments'), to be assessed within the November 2015 Replacement ES.
- Further details in regard to the approach taken in this November 2015 Replacement ES are outlined in *Chapter 2: EIA Methodology*.

Introduction

- 14.1 This chapter of the Environmental Statement (ES) assesses the potential effects of the Proposed Development on the historic environment specifically buried heritage assets/archaeology. The historic environment comprises archaeological remains, structures, monuments or heritage landscape within or immediately around the Site that are considered to be significant because of their evidential, historic, aesthetic or communal interest. The chapter contains a description of the heritage planning policy context and the methods used in the assessment. It describes the baseline historic environment currently existing at the Site and in its immediate vicinity; provides a statement of significance of known or possible buried heritage assets; assesses the magnitude of change (effect) of the Proposed Development upon the significance of known or potential buried heritage assets and the resulting environmental effect; identifies the mitigation measures required to prevent, reduce or off-set any significant adverse environmental effects; and reports on residual effects.
- 14.2 The assessment deals solely with the archaeological implications of the Proposed Development and does not cover potential built heritage impacts (e.g. listed buildings, conservation areas and their setting). This is covered within **Chapter 15: Built Heritage** of this ES.
- 14.3 An assessment of operational phase effects has been scoped out on the basis that once the Proposed Development has been completed, no further ground disturbance would occur and consequently there would be no additional effect upon buried heritage assets.
- 14.4 This assessment has been researched and prepared by MOLA (Museum of London Archaeology). The chapter is supported by **ES Volume III: Appendix I**, which comprises a Historic Environment Assessment (HEA) completed by MOLA.

Legislation and Planning Framework

National Legislation

Scheduled Monuments

- 14.5 The majority of the Site lies within a scheduled monument. Nationally important archaeological sites (both above and below-ground remains) may be identified and protected under the Ancient Monuments and Archaeological Areas Act 1979 (Ref. 14-1). An application to the Secretary of State is required for any works affecting a Scheduled Monument. Prior written permission, known as Scheduled Monument Consent (SMC) is required from the Secretary of State for works physically affecting a scheduled monument. SMC is separate from the statutory planning process. Development affecting the setting of a scheduled monument is dealt with wholly under the planning system and does not require SMC. Geophysical prospection (including the use of a metal detector) on a scheduled monument requires prior consent from English Heritage.

Planning (Listed Buildings and Conservation Areas) Act 1990

- 14.6 The Act (Ref. 14-2) sets out the legal requirements for the control of development and alterations which affect buildings, including those which are listed or in conservation areas. Buildings which are listed or which lie within a conservation area are protected by law. Grade I are buildings of exceptional interest. Grade II* are particularly significant buildings of more than special interest. Grade II are buildings of special interest, which warrant every effort being made to preserve them.

Human Remains

- 14.7 Development affecting any former burial ground is regulated by statute, principally the Burial Act 1857, the Disused Burial Grounds Act 1884 and 1981, and the Pastoral Measure 1983 (Ref. 14-3). The prior exhumation and re-interment of human remains is required and must be carried out under the terms of a Burial Licence, to be obtained from the Ministry of Justice.
- 14.8 Where likely survival of human burials in ground consecrated under the rites of the Church of England has been identified in a Historic Environment Assessment it is possible that a 'Faculty' may need to be sought by the developer in addition to Planning Consent. Faculty is issued by the office of the Chancellor of the Diocesan authorities in accordance with the provision of the Faculty Jurisdiction Measure 1964 (as amended by the Care of Churches and Ecclesiastical Jurisdiction Measure 1991). Separately, exhumation of any human remains should be notified to the Ministry of Justice who may also need to issue a Burial Licence. A Burial Licence is required from the Ministry of Justice if the remains are not intended for reburial in consecrated ground (or if this is to be delayed - for example where archaeological or scientific analysis takes place first).
- 14.9 Under the Town and Country Planning (Churches, Places of Religious Worship and Burial Grounds) Regulations 1930, the removal and re-interment of human remains should be in accordance with the direction of the local Environmental Health Officer.

National Policy and Guidance

National Planning Policy Framework (2012)

- 14.10 The Government issued the National Planning Policy Framework (NPPF) in March 2012 (Ref. 14-1). One of the 12 core principles that underpin both plan-making and decision-taking within the framework is to 'conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations' (para. 17). The NPPF recognises that heritage assets are an irreplaceable resource (para. 126), and requires the significance of heritage assets to be considered in the planning process, whether designated or not. The contribution of setting to asset significance needs to be taken into account (para. 128).
- 14.11 Local planning authorities are required to identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset)

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taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the effect of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal (para. 129).

14.12 Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted (para. 141).

14.13 Section 12: Conserving and Enhancing the Historic Environment, of the NPPF is provided in full in **ES Volume III: Appendix I**.

Regional Policy and Guidance

The London Plan (2011)

14.14 Relevant development policies within the London Plan (Ref. 14-5) include:

- Policy 7.8: Heritage Assets and Archaeology:
 - London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account;
 - Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the Site's archaeology;
 - Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate;
 - Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural detail;
 - New development should make provision for the protection of archaeological resources, landscapes and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset;
 - Boroughs should, in Local Development Framework (LDF) policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration; and
 - Boroughs, in consultation with English Heritage, Natural England and other relevant statutory organisations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their settings where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.

Revised Early Alterations to the London Plan (2013)

14.15 Policy 7.8 described above in paragraph 14.14, remains unchanged; however, additions have been made to paragraph 7.31 in the Revised Early Minor Alterations to the London Plan (REMA) (Ref. 14-7), which support the policy via two new sub-paragraphs that have been added (paragraphs 7.31a and 7.31b).

14.16 The additions bring the London Plan in line with the NPPF in terms of the protection of heritage assets, specifically dealing with the treatment of designated assets which have been deliberately neglected and the appraisal of planning applications which will not cause substantial harm to a designated asset.

Draft Further Alterations to the London Plan (2014)

14.17 The Draft Further Alterations to the London Plan January 2014 (Ref. 14-7) incorporate the changes made to paragraph 7.31, but add no further revisions to the elements of the London Plan relating to archaeology and heritage assets.

Local Policy and Guidance

LBTH Core Strategy (2010)

14.18 The London Borough of Tower Hamlets (LBTH) Core Strategy (Ref. 14-8) includes the following policy in relation to archaeology:

- Policy SP10 sets out the requirements to protect all levels of designation of archaeological remains and their settings, and to

"Preserve and enhance the wider built heritage and historic environment of the borough, enabling the creation of locally distinctive neighbourhoods, through...encouraging and supporting development that preserves and enhances the heritage value of the immediate and surrounding environment and the wider setting."

LBTH Managing Development Document (2013)

14.19 The LBTH Managing Development Document (MDD) (Ref. 14-9) includes the following policy relating to archaeology, policy *DM27: Heritage and the Historic Environment*.

- DM 27.1 Development will be required to protect and enhance the borough's heritage assets, their setting and their significance as key elements of developing the sense of place of the borough's distinctive 'Places'; and
- DM 27.2 Applications for the alteration, extension, change of use, or development within a heritage asset will only be approved where:
 - a) It does not result in an adverse impact on the character, fabric or identity of the heritage asset or its setting;
 - b) It is appropriate in terms of design, scale, form, detailing and materials in its local context;
 - c) It enhances or better reveals the significance of the asset or its setting;
 - d) Opportunities to mitigate or adapt to climate change through the re-use or adaptation are maximised; and
 - e) In the case of a change of use, a thorough assessment should be carried out of the practicability of retaining its existing use and the wider benefits of the proposed use.
- DM27.4. For development that lies in or adjacent to Archaeological Priority Areas, the Council will require the proposal to include an Archaeological Evaluation Report and will require any nationally important remains to be preserved permanently on site, subject to consultation with English Heritage.

Other Relevant Policy and Guidance

14.20 There is no other relevant policy and guidance applicable to the Proposed Development and this archaeology assessment.

Legislation and Planning Framework - Update 2015

March 2015 ES Addendum

14.21 [Since the submission of the December 2014 ES, there have been no changes to legislation or planning policy relevant to archaeology that affect the assessment in the December 2014 ES.](#)

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November 2015 Amendments

The London Plan (2015)

- 14.22** The adoption of the FALP in March 2015 resulted in the consolidation of changes to the London Plan (2011) to become the 'London Plan (2015)' (Ref. 14-18). The London Plan (2015) also incorporates the REMA, which were published in October 2013.
- 14.23** No changes were made to the policy affecting the assessment as part of the adoption of the London Plan 2015 and does not alter the overarching content of the policy review undertaken as part of the December 2014 ES.

Minor Alterations to the London Plan (2015)

- 14.24** On 11th May 2015 the Mayor of London published for six weeks public consultation (11th May to 22nd June) two sets of Minor Alterations to the London Plan – on Housing Standards and on Parking Standards (Ref. 14-19). Both sets of minor alterations were to be considered at a public examination, commencing on 21st October 2015.
- 14.25** These minor alterations have been prepared to bring the London Plan in line with new national housing standards and car parking policy. These alterations do not propose any significant changes to the policy relevant for the assessment.

Assessment Methodology and Significance Criteria

Approach to Archaeology Assessment

- 14.26** The Site is comprised of three distinct plots (S1, S2 and S3). As the concept for the masterplan has developed, these plots were further subdivided into individual buildings, resulting in the following plots: S1, S1a, S1b, S1c, S2 and S3.
- 14.27** For the purposes of this assessment, the Site has been divided into three areas, and comprise:
- Area fronting Norton Folgate / Shoreditch High Street (note: for the purposes of this assessment, reference to Site S1 captures the plots comprising S1, S1a, and S1b);
 - Area to the north between Fleur De Lis Street and the railway (note: for the purposes of this assessment, reference to Site S2 captures the plots comprising S1c and S2); and
 - Area to the east (note: for the purposes of this assessment, reference to Site S3 captures the plot comprising S3).
- 14.28** Collectively the three assessment areas are referred to as the 'Site'.
- 14.29** Following the characterisation of the baseline conditions, the methodology used to characterise the potential effects on likely archaeological buried heritage assets at the Site included:
- Evaluation of the significance of buried heritage assets, based on existing designations and professional judgment, where such resources have no formal designation, and considering evidential, historical, aesthetic and communal value as outlined in English Heritage's Conservation Principles (Ref. 14-10);
 - Prediction of the magnitude of the likely impact upon the known or potential significance of buried heritage assets;
 - Consideration of the mitigation measures that have been included and any additional mitigation that might be required in the design and construction or operational lifetime of the Proposed Development in order to mitigate likely adverse effects; and
 - Quantification of any residual effects (those that might remain after mitigation).
- 14.30** The assessment has been carried out in accordance with the requirements of the NPPF and to standards specified by the Institute for Archaeologists (Ref. 14-11 and Ref. 14-12), English Heritage and the Greater London Archaeological Advisory Service (GLAAS) (Ref. 14-13).

Baseline Characterisation

Desk-Based Study

- 14.31** The methodology and information sources consulted during the baseline characterisation are set out in detail within **ES Volume III: Technical Appendix I**. In summary this desk-based study entailed:
- Setting the Site into its archaeological and historical context and potential for archaeological remains (defined as high, medium or low), by collecting information on the known historic environment within a 200 metre (m) radius study area around the Site, as held by the repositories of such information within Greater London. These comprise: the Greater London Historic Environment Record (GLHER); the London Archaeological Archive and Resource Centre (LAARC); and English Heritage (EH). The principle sources of information are the GLHER and the LAARC, which list all known archaeological sites and finds. The study area was considered through professional judgement to be appropriate to characterise the historic environment of the Site. Occasionally there may be reference to assets beyond the study area, where appropriate, for example where such assets are particularly significant and/or where they contribute to current understanding of the historic environment.
 - Consultation of a broad range of relevant documentary and cartographic sources, including published histories and journals, British Geological Survey data, available geotechnical data, and historic Ordnance Survey maps.

Investigations

- 14.32** Three investigations have been undertaken within the Site to date. The most recent was undertaken between June - September 2014 and the preliminary results of this investigation have been incorporated into this assessment. This involved the excavation of one test pit in Site S1, the monitoring of an additional nine test pits in Sites S1 and S3, and the monitoring of six test pits in Site S2.
- 14.33** Two other archaeological investigations have been previously undertaken within sections of the Site, carried out in 2006 (Ref. 14-15) and 2009 (Ref. 14-16), as part of an earlier development proposal that did not progress. The 2006 archaeological evaluation by MoLAS (now MOLA) comprised eight evaluation trenches, to establish the levels and nature of surviving archaeological remains within the Site in order to assess the likely impact of redevelopment.
- 14.34** The 2009 investigation comprised monitoring the extraction of 23 geoarchaeological core samples through the brickwork of the former Nicholls and Clarke warehouse and showroom in the northern half of Site S1 (numbers 3-9 Shoreditch High Street, and 12-14 Blossom Street). The samples were taken to ascertain the existence of any surviving fragments, or standing structures of medieval masonry encased within the later 19th and 20th century brick built walls, in particular surviving portions associated with the Priory of St Mary Spital such as boundary walls and ancillary buildings.

Assumptions

- 14.35** The assessment relies on available data, and it is assumed that the GLHER database is accurate and up to date. However, in addition, a process of review and validation of the GLHER data has also taken place (for example, ensuring assets are correctly located, and undertaking further research where appropriate, into GLHER entries with little information).

Limitations

- 14.36** The main limitation to the assessment is the nature of the archaeological resource - buried and not visible - which means it can be difficult to predict accurately the presence and likely significance of buried assets, and consequently the impact upon them, based primarily on a desk based sources (i.e. the principle sources being the GLHER and LAARC). The information provides an initial indication of assets present rather than a definitive list of all potential archaeological assets because the full extent of a buried heritage resource cannot be known prior to site-specific archaeological field investigation.
- 14.37** Notwithstanding, the methodology for this assessment is considered robust, utilising reasonably available information, and conforms to the requirements of local and national guidance and planning policy. Typically,

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appropriate standard archaeological prospection and evaluation techniques are proposed to reduce the uncertainties inherent in any desk-based assessment, as part of an overall EIA mitigation strategy.

Consultation

14.38 LBTH has been consulted throughout the evolution of the Proposed Development. The scope of the archaeology assessment for the EIA was set out in the EIA Scoping Report submitted to LBTH on July 2014. The EIA Scoping Opinion identified a list of the information to be accounted for within the assessment. These have been addressed within this Chapter (refer below) or where topics have not been addressed, reasons are provided.

14.39 Matters addressed include:

Table 14-1 Matters raised within Scoping Opinion

Topic	Reference in Chapter/Application Documentation
London Borough of Tower Hamlets	
When documenting the general historical background to the site, reference should be made to the London Archaeological Archive and Resource Centre (LAARC), the London and Metropolitan Archives and the Royal Institute of British Architects Library which contain extensive collections on archaeology	Baseline Characterisation
The proposed development should protect as much of the SAM as possible	Baseline Characterisation
Greater London Archaeology Advisory Service	
In view of the size of the site and the potential for the remains, the necessary archaeological assessment should include the following information in addition to that already proposed:	
(i) a building by building historical and archaeological assessment of each of the standing structures to inform on their relative significances;	(i) Refer Chapter 15: Built Heritage
(ii) modelling of the buried deposits using existing archaeological and geotechnical data to inform on the extent of intact archaeological horizons and proposed impact on them; and	(ii) Refer Potential Effects and Mitigation Measures
(iii) assessment of the historic street pattern and consideration of its reintroduction	(iii) Refer Chapter 15: Built Heritage

14.40 English Heritage Greater London Archaeological Advisory service (GLAAS) have been consulted throughout the design process. They have been consulted on various iterations of the scheme and their feedback in terms of carrying out 'field evaluation trenches' in Site S2 has been acted upon.

14.41 The English Heritage Inspector (EH Inspector) of Ancient Monuments, responsible for the areas of the Site that lie within Scheduled Ancient Monument GL162, has been consulted throughout the design process. The EH Inspector has been consulted on the various iterations of the scheme. Scheduled Monument Consent was granted (Ref: 00080055) for a number of engineering trial pits and boreholes and the EH inspector visited the Site (23rd June 2014) and has been issued (21st November 2014) with a report on the findings.

Significance Criteria

Effect Significance Terminology

14.42 The methodology used to determine the significance of buried heritage assets (i.e. archaeological remains), the severity of any impacts upon them and the significance of residual effects is based on the approach outlined in **Chapter 2: EIA Methodology**.

14.43 The terminology used to describe the sensitivity, or alternatively the significance, or resources / receptors and magnitude of change of the impacts is as follows:

- High;
- Medium;
- Low; and
- Very Low.

14.44 The key terminology to be used to describe the classification of effects is as follows and is further described in the 'Significance of Environmental Effects section of this chapter:

- Major;
- Moderate;
- Minor;
- Negligible; and
- Uncertain.

14.45 The following sections provide an overview of the matters considered in order to determine the likely effect on archaeological heritage assets and their significance:

- Evaluating the Significance of Heritage Assets;
- Magnitude of Change;
- Significance of Environmental Effects; and
- Mitigation Measures and Residual Effects.

Evaluation of Effect and Significance – Heritage Assets

14.46 The term 'significance' is used in this assessment to define the value of the asset to current and future generations (i.e. alternatively referred within other technical assessments as 'sensitivity' or 'importance' of the receptor / resource). To avoid confusion when describing 'significance' in terms of EIA, the evaluation of the value of the heritage asset will be termed 'Buried Heritage Asset (BHA) significance'.

14.47 The determination of the significance of known and potential heritage assets is based on statutory designation and/or professional judgement against the following values:

- *Evidential Value*: the potential of the physical remains to yield evidence of past human activity. This might take into account date, rarity, state of preservation, diversity/complexity, contribution to published priorities, supporting documentation, collective value and comparative potential;
- *Aesthetic Value*: this derives from the ways in which people draw sensory and intellectual stimulation from the heritage asset, taking into account what other people have said or written;
- *Historical Value*: the ways in which past people, events and aspects of life can be connected through heritage asset to the present, such a connection often being illustrative or associative;
- *Communal Value*: this derives from the meaning of a heritage asset for the people who know about it, or for whom it figures in their collective experience or memory. Communal values are closely bound up with historical, particularly associative, and aesthetic values, along with educational, social or economic values.

14.48 There is no single defining criteria that dictates the overall BHA significance and each asset has to be evaluated against the range of criteria listed above on a case by case basis. Unless the nature and exact extent of buried archaeological remains within any given area has been determined through prior investigation, significance is often uncertain. Table 14-2 below provides examples of the BHA significance of designated and non-designated heritage assets.

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Table 14-2 Significance of Heritage Assets

Heritage Asset Description	Significance
World Heritage Sites; Scheduled monuments; Grade I and II* listed buildings; English Heritage Grade I and II* registered parks and gardens; Protected Wrecks; and Heritage assets of national importance.	Very high (International / National)
English Heritage Grade II registered parks and gardens; Conservation areas; Designated historic battlefields; Grade II listed buildings; Burial grounds; Protected heritage landscapes (e.g. ancient woodland or historic hedgerows); and Heritage assets of regional or county importance.	High (National / Regional / County)
Heritage assets with a district value or interest for education or cultural appreciation; and Locally listed buildings.	Medium (District)
Heritage assets with a local (i.e. parish) value or interest for education or cultural appreciation.	Low (Local)
Historic environment resource with no significant value or interest.	Negligible
Heritage assets that have a clear potential, but for which current knowledge is insufficient to allow significance to be determined.	Uncertain

Magnitude of Change

14.49 Determination of magnitude of change upon the BHA significance of the known or potential heritage asset is based on the severity of the potential physical impact (e.g. any activity that would entail ground disturbance, from piling, ground reduction, etc.). Table 14-3 describes the criteria used in this assessment to determine the magnitude of change.

Table 14-3 Magnitude of Change

Magnitude of Change	Description of Change
High	<ul style="list-style-type: none"> Complete removal of asset. Change to asset significance resulting in a fundamental change in our ability to understand and appreciate the resource and its historical context, character and setting. The transformation of an asset's setting in a way that fundamentally compromises its ability to be understood or appreciated. The scale of change would be such that it could result in a designated asset being undesignated or having its level of designation lowered.
Medium	<ul style="list-style-type: none"> Change to asset significance resulting in an appreciable change in our ability to understand and appreciate the asset and its historical context, character and setting. Notable alterations to the setting of an asset that affect our appreciation of it and its significance; or the unrecorded loss of archaeological interest.
Low	<ul style="list-style-type: none"> Change to asset significance resulting in a small change in our ability to understand and appreciate the asset and its historical context, character and setting.
Negligible	<ul style="list-style-type: none"> Negligible change or no material change to asset significance. No real change in our ability to understand and appreciate the asset and its historical context, character and setting.

Magnitude of Change	Description of Change
Uncertain	<ul style="list-style-type: none"> Level of survival/condition of resource in specific locations is not known: magnitude of change is therefore not known.

Significance of Environmental Effects

14.50 The environmental effect is determined by comparing the BHA 'significance' with the 'magnitude of change', see Table 14-4 below. The nature of the effects may be either adverse (negative) or beneficial (positive). Where information is insufficient to be able to quantify either the resource significance or magnitude of change with any degree of certainty, the effect is given as 'uncertain'.

Table 14-4 Matrix Used to Determine the Significance of Environmental Effect

Magnitude of Change	Buried Heritage Asset Significance					
	Very High	High	Medium	Low	Very Low	Uncertain
High	Major	Major	Major / Moderate	Moderate / Minor	Minor	Uncertain
Medium	Major	Major / Moderate	Moderate	Minor	Negligible	Uncertain
Low	Moderate	Moderate / Minor	Minor	Minor	Negligible	Uncertain
Negligible	Minor	Minor / Negligible	Negligible	Negligible	Negligible	Uncertain
Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain

14.51 The following Table 14-5 below provides specific definitions (with regard to the categories of effect being considered and the nature of effect) for the classifications of effect for buried heritage assets.

Table 14-5 Definition of Significance Criteria

Significance of Effect on Buried Heritage Assets	Definition
Major Adverse	Substantial harm to, or loss of, an asset's significance as a result of changes to its physical form or setting.
Moderate Adverse	Less than substantial harm to an asset's significance as a result of changes to its physical form or setting.
Minor Adverse	Limited harm to an asset's significance as a result of changes to its physical form or setting.
Negligible	No appreciable change to an asset's significance.
Uncertain	Significance of effect uncertain due to lack of information on buried heritage asset significance.
Minor Beneficial	Limited improvement of an asset's significance as a result of changes to its physical form or setting.
Moderate Beneficial	Notable enhancement of an asset's significance as a result of changes to its physical form or setting.
Major Beneficial	Substantial enhancement of an asset's significance as a result of changes to its physical form or setting.

Mitigation Measures and Residual Effects

14.52 The incorporation of appropriate mitigation measures would aim to reduce or offset the occurrence of any potential adverse effect. Measures to mitigate effects could consist of either design adjustments, to allow significant resources to be protected and retained (preservation in situ) or, where this is not feasible,

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investigation and recording before and during development, with dissemination at an appropriate level (preservation by record). The residual effect would reflect the success or effectiveness of for the recommended mitigation measures.

Assessment Methodology and Significance Criteria - Update 2015

March 2015 ES Addendum

14.53 The methodology for assessing the baseline and likely significant effects has not changed from that presented in the December 2014 ES.

November 2015 Amendments

14.54 There have been no changes to be made to the assessment methodology from that considered in the December 2014 ES or for the March 2015 ES Addendum. The methodology is considered to remain valid for the purposes of assessing the Amended Proposed Development.

Baseline Conditions

14.55 The following sections provide an overview of the baseline conditions in relation to:

- Designated Assets;
- Site Topography and Geology;
- Archaeological Investigations;
- Chronological Summary;
- Factors Affecting Archaeological Survival;
- Statement of Buried Heritage Asset Significance; and
- Summary of Sensitivity of Resources.

14.56 The above sections are outlined in greater detail in *ES Volume III: Appendix I*.

Designated Assets

14.57 The areas comprising Sites S1 and S3 are entirely within the nationally designated (protected) area of the medieval Priory and Hospital of St Mary Spital (scheduled monument number LO162 - no statutory description available). The southern edge of the Site may include part of the Priory's service court, with the northern precinct boundary crossing the centre of the Site.

14.58 The Site is also within an area of archaeological importance or potential, as designated by LBTH, covering the site of the medieval hospital of St. Mary's, between Bishopsgate and Spitalfields Market.

14.59 The Site is also situated within the Elder Street Conservation Area, designated for its surviving 18th century character (Ref. 14-14).

14.60 The Site does not contain any other nationally designated (protected) heritage assets, such as listed buildings or registered parks and gardens. Details relating to listed buildings adjacent to the Site and locally listed buildings within the Site are provided in *Chapter 15: Built Heritage* of this ES.

Site Topography and Geology

14.61 Topography can provide an indication of suitability for past human settlement, and ground levels can indicate whether the ground has been built up or truncated, which can have implications for archaeological survival. Geology can provide an indication of suitability for early settlement, and potential depth of remains.

14.62 The Site lies c 1.5km north of the modern bank of the River Thames. One of the northern tributaries of the Thames, the Walbrook, flowed south c 150m west of the Site. Modern pavement level on Norton Folgate, immediately to the west of the Site, is 14.0m above Ordnance Datum (OD) and lies at 15.2m OD on Commercial Street at the north-eastern corner of the Site.

14.63 The geology of the Site comprises Brickearth overlying Thames River Terrace Gravels of the Taplow Terrace. Although subsequent building and/or quarrying is likely to have removed much of the brickearth and truncated much of the gravel in the area, archaeological investigations in the vicinity of the Site have

recorded the presence of brickearth, overlying terrace gravels. An archaeological evaluation in the western part of Site S1 in 2006 (Ref. 14-15) recorded the top of truncated brickearth in the southern half of the Site at 10.7m AOD (3.3m below ground level (mbgl)). To the north of this, truncated brickearth was recorded in Trench 3 at 9.5m AOD (4.5mbgl) and in Trench 4 at 10.0m AOD (4mbgl). In the northern half of the Site (Trenches 5 and 6), natural gravel was recorded at 10.6–10.7m AOD (3.3–3.4mbgl).

Archaeological Investigations

Current Preliminary Investigations

14.64 Archaeological investigations were undertaken on the Site between June and September 2014, including areas within the scheduled monument constraints area (Sites S1 and S3). The preliminary results have been incorporated into the assessment and are summarised below:

- A test pit in the cellar of 14 Norton Folgate (Site S1), revealed a later medieval wall footing potentially associated with the Priory of St Mary Spital;
- In Sites S1 and S2, test pits identified the post-medieval levelling deposits; and
- In Site S3, services and foundations restricted the depth of the test pits and only modern deposits were observed.

Past Archaeological Investigations

14.65 Two archaeological investigations have been previously undertaken within sections of the Site, carried out in 2006 (Ref. 14-15) and 2009 (Ref. 14-16), both within the Site S1.

14.66 Within the Site S1, an archaeological evaluation in 2006 revealed a Roman ditch in the northern part of the Site, along with medieval walls, foundations and occupation deposits potentially associated with buildings along Shoreditch High Street. Deeply-cut features in the southern part of the Site may represent drainage or possibly were part of a medieval water supply. A potential 16th or early 17th century culvert was recorded in the south-west corner of the Site. A series of floors, walls, foundations, two barrel lined wells, a cess pit and deposits recorded across the Site also represented occupation in the post-medieval period, related to properties fronting onto Norton Folgate in the south and Shoreditch High Street in the north. No activity which could be associated with the medieval priory was identified.

14.67 In 2009, MOLA monitored geoarchaeological core samples in the northern half of Site S1. The samples were taken to ascertain the existence of any surviving medieval masonry encased within the later 19th and 20th century brick built walls. No such evidence was found.

External to the Site

14.68 Outside of the Site itself there have been 45 archaeological investigations within the surrounding study area including watching briefs, evaluations and full scale excavations, with 30 of these undertaken within the designated area of the Scheduled Monument. The archaeological investigations have found extensive evidence of Roman, later medieval and post-medieval remains.

14.69 The Site lies to the east of Roman Ermine Street, and findings indicate that Roman extra-mural activities including brickearth and gravel extraction, agriculture and burial took place in the vicinity of Ermine Street. The medieval Priory and Hospital were established in the 12th century, and evidence of medieval buildings, and cemetery have been found, as well as evidence of more general activities such as quarrying and land management. Further development of the area in the post-medieval period has left evidence which was found on most archaeological sites in the study area.

Chronological Summary

14.70 There is no archaeological evidence for occupation during the prehistoric period within the surrounding study area. Whilst the gravel terrace with the resources of the River Thames and the Walbrook would have made the area a first choice for settlement and other activity, development from the Roman and medieval periods to present day has removed much of the prehistoric land surfaces and finds of this period are typically occasional and residual (outside the context in which they were originally deposited).

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- 14.71** During the Roman period, the Site lay c 625m north-east of the Roman city of *Londinium*, where the main Roman road of Ermine Street left the city at Bishopsgate. Roman law forbade the burial of the dead within the city walls and Roman burials have been recorded over a large area to the south and west of the Site, with both cremations and simple inhumations as well as high status burials recorded. In addition to burials, evidence of land divisions in the form of ditches, gravel extraction, and evidence of land drainage possibly for agricultural purposes has been recorded. South-west of the Site, wells, post-holes and foundations have been found, indicating some settlement close to the road. Of particular interest glass working waste and crucibles have been found at a number of sites in Spital Square, indicating that industrial activity may have been taking place beyond the city walls.
- 14.72** During the Saxon period the main focus of the early- and mid-Saxon settlement was a busy trading port to the west of the Roman city around Aldwych, the Strand, and Covent Garden. Occupation of the City of London was re-established under King Alfred in AD 886. At the time of the Norman Conquest (AD 1066) the area formed part of the large Manor of Stepney, which is likely to have belonged to the Bishop of London since the 7th century. No archaeological remains dating to this period have been found within the surrounding study area, which was probably in open fields throughout.
- 14.73** The Priory and Hospital of St Mary-without-Bishopsgate was founded c 1197, with the initial precinct centred on modern-day Spital Square. No remains of the church or ancillary buildings have been recovered to date. The lands of St Mary Spital were massively increased in 1235 when the establishment was re-founded, with buildings replaced in the late-13th and mid-14th centuries. The precinct included a kitchen to the north of the cloisters and other buildings including stables, barns, a brewhouse and pantry. The cemetery of the 1197 hospital lay to the south of the infirmary, whilst the cemetery of the re-founded hospital lay to the west of the new infirmary. By the later 14th and 15th centuries there were also a number of houses for wealthy residents scattered around the precinct. The Priory and Hospital was dissolved in 1539, towards the end of the reign of Henry VIII when all religious houses in England and Wales were dissolved ('the Dissolution'). The lands were later sold off.
- 14.74** After the Dissolution, many of the buildings were reused although the church had been largely demolished. Major redevelopment of the area took place in the second part of the 17th century. The new Spitalfields suburb became a home for a rapidly expanding population, and by the early 18th century many of the modern streets had been laid out and new houses constructed.
- 14.75** Archaeological evaluation in 2006 in the western part of Site S1 recorded levelling deposits, pits, drains and cellar remains dating to the 17th or early 18th centuries. Similar post-medieval levelling deposits have been recorded in preliminary results within Site S2 during the recent archaeological evaluation undertaken in 2014.
- 14.76** The railway line was constructed in the late 19th century to the north of the Site with warehouses and industry gradually replacing the residential terraces and shops.

Factors Affecting Archaeological Survival

- 14.77** Archaeological survival potential across the Site is variable and has been divided into areas which have high, moderate and low survival as shown on Figure 1 (refer *ES Volume III: Appendix I*). This is largely based on past impacts which will have compromised archaeological survival, in particular the presence of existing basements, along with the potential depth of deposits as demonstrated by the past investigations on the Site. The impact of past development has been assessed separately for the three Sites S1, S2 and S3, and is discussed further below.

Site S1

- 14.78** Archaeological survival around the perimeter and in the north of the Site S1 is considered low as a result of basements in current and previous buildings. Archaeological evaluations in the western half of Site recorded truncation to a depth of 10.7–12.0m AOD (2.0–3.3mbgl). Below this depth only deeply cut features such as wells and drains from the later medieval period onwards are likely to survive, although there is some potential for earlier remains.

- 14.79** Along the western edge of the Site S1 several buildings have shallower basements resulting in a moderate potential for survival of structural features, as demonstrated by an archaeological evaluation in Site S1 which recorded remains of later medieval building foundations and ground surfaces at depths of c 12.0m AOD.
- 14.80** In the centre of the Site S1 and in localised areas along the northern and south-eastern perimeters of the Site archaeological survival is expected to be high due to the absence of basements. Archaeological evaluation has recorded the survival of later medieval building remains and levelling/dump deposits overlain by remains dating to the 16th–18th centuries in areas where modern impacts have not extended below depths of 13.9m AOD (c 0.1–1.0mbgl).

Site S2

- 14.81** A heritage assessment (Ref. 14-17) of the buildings at 2-8 Elder Street, 161 Commercial Street and the warehouses in the central and western sections of the Site indicate that these buildings all feature a single level basement, which will have truncated, or removed entirely, archaeological remains within their footprint to 12.1–12.4m OD (2.8–3.1mbgl).
- 14.82** Cartographic records indicate that the former warehouses at 1–4 Fleur De Lis Street, now demolished, also features a single basement which would have removed any archaeological remains to a similar depth. Outside of these buildings in the eastern half of the Site archaeological survival potential is expected to be moderate.
- 14.83** Archaeological survival is expected to be high in the south-western section of the Site due to the absence of basements in this area.

Site S3

- 14.84** Archaeological survival in the central southern section of the Site is expected to be moderate, as it was previously gardens or yards. Survival across the remainder of Site S3 is thought to be low as along the perimeter of Site S3 it is assumed that the 18th–19th century buildings would have had cellars or basements which will have removed all earlier archaeological remains to a depth of c 2.0mbgl (12.0m AOD).
- 14.85** The type of foundations of the existing buildings are unknown, but are likely to have truncated, or removed entirely, any earlier remains, including the foundations of the previous buildings, to 12.0–12.5m AOD (c 1.5–2mbgl).

Statement of Buried Heritage Asset Significance

Prehistoric

- 14.86** *The Site has a low potential to contain prehistoric remains.* The Site's location on well drained gravel terrace deposits close to the reliable resources of the River Thames and the Walbrook channel would have made it attractive for activity or occupation during the prehistoric period. Although there is the possibility of a deep archaeological sequence preserved in localised areas of the Site, much quarrying has been found to have taken place in the vicinity, from the Roman period onwards, and it may be that much of the prehistoric land surface has been removed. No prehistoric finds have been recorded in the study area or during the past investigations to date.

Roman

- 14.87** *The Site has a medium potential for Roman remains.* The Site lies to the east of the course of Ermine Street, a major Roman road, and close to a Roman cemetery however the precise course of the road, or extent of the cemetery in this area have not been determined. On the eastern side of Norton Folgate, the closest known Roman burials were recorded c 30m south of Site S1.
- 14.88** The Sites S1 and S2 may contain evidence of Roman activity. Although no such remains were found during the preliminary results of the recent evaluation in Site S1, a Roman ditch found in the northern part of Site S1 at 10.8m AOD (3.3mbgl) during the 2006 evaluation confirms activity of the period in this area. No direct evidence of a cemetery was found.

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14.89 The Site S3, located further from the Roman road, has low potential for Roman remains associated with the cemetery, and other evidence of land use such as cultivation. Roman burials would be heritage assets of medium significance, with evidential value for burial practices and the extent of the cemetery.

14.90 Other Roman remains such as ditches or cultivation soils would be heritage assets of low or medium significance, with archaeological and historic interest for possible evidence of past human activity, land use and the environment. Isolated residual finds would be heritage assets of medium or low significance.

Early Medieval

14.91 *The Site has a low potential for early medieval remains.* The Site may have been used for cultivation or quarrying, and no early medieval remains have been recorded in the study area. Cut features or *in situ* remains are unlikely.

Later Medieval

14.92 *The Site has a high potential for later medieval remains.* The southern half of Site S1, Site S3 and the south-eastern corner of Site S2 are situated within the precinct of St Mary Spital Priory, evidence of which has been found during previous excavations on the Site in 2006 and 2014. Buildings around the service court of the priory, remains of which have been recorded south of Folgate Street, are likely to have extended into the southern part of Site S1. The northern half of Site S1 lay outside the precinct, but may contain further evidence of properties owned by the priory, such as almshouses. An archaeological evaluation in the north-western part of Site S1 has recorded the bases of medieval walls beneath the levels of later truncation, and further such remains may survive elsewhere in the Site. Site S3 also lies within the outer precinct within the priory orchard. Site S2 is situated mostly outside of the precinct and is outside of the scheduled area but may preserve evidence of the precinct boundary along the southern edge of the area. Additionally the line of an 11th-12th century water system and road, evidence for which has been found in excavations to the south of Site S1, has been projected running north-south along the western edge of this area.

14.93 The scheduling confers very high significance on any buried heritage assets associated with the priory, with high evidential and historic value for increased understanding of the occupation and use of the Site and its surroundings. Truncated, fragmentary and localised remains would however be of lesser significance (e.g. medium or high) and might not merit preservation *in situ*.

14.94 Evidence of the extent of the 11th -12th century drainage system and 12th century road would be important factors in the understanding of the development of the area. Any waterlogged deposits recovered from the drainage system may have good preservation of environmental material and organic artefacts, which may throw light on the domestic activities, industry and diet of the occupants of the house and add significantly to the understanding of the layout, development and drainage.

14.95 The service courts of monastic houses have only rarely been excavated but they are important parts of the monastic complex. Few other monastic outer precincts have been archaeologically investigated although work has now taken place at Thornholme Priory, Waltham Abbey, and Fountains Abbey. These have provided evidence of mills, barns, cattle byres, dovecotes, houses for stewards, granaries, smithies, malshouses, brewhouses, and woolhouses. Such structures could either be in timber or stone and, whilst sometimes difficult to interpret, are often identifiable from the artefactual and ecofactual remains associated with them. The land-uses within a monastic outer precinct are of equal importance to the structures and these have generally not been investigated on a large scale.

Post-Medieval

14.96 *The Site has a high potential for post-medieval remains.* Extensive evidence of post-Dissolution land use has been recovered from excavations in the study area, and remains of drains, cellars, foundations, pits and wells have been found below the existing basement levels in Site S1. Site S1 also contains the cellars of houses dating to the 18th century at 14 and 15 Norton Folgate, and an 18th century wall between 8 and 9 Shoreditch High Street.

14.97 Sites S2 and S3 may also contain the truncated remains of 18th or early 19th century houses. Structural remains, waste pits and backfilled wells from the 16th and 17th centuries would be heritage assets of medium

significance, with 18th century and later remains of low heritage significance, with evidential value and archaeological and historic interest for evidence of past occupation and activity in the Site.

Summary of Sensitivity of Resources

14.98 From the review of the baseline conditions, Table 14-6 below presents the receptors / resources likely to be affected by the Proposed Development and their sensitivity. The table sets out the resources / receptors in chronological order and includes a description, its potential and predicted location within the Site.

Table 14-6 Likely Resource / Receptor and Sensitivity

Resource / Receptor (Potential for remains)	Site(s)	BHA Significance of Resource / Receptor
<i>Roman</i> Truncated remains of Roman cut features (ditches, quarrying) or cultivation soils (Moderate potential)	All	Medium
<i>Roman</i> Remains of Roman burials (Low potential)	All	Medium
<i>Later Medieval</i> Remains of 11th–12th century water system and 12th century road (High potential)	Site S1	High
<i>Later Medieval</i> St Mary Spital Priory scheduled monument. Later medieval features associated with the priory would include Site S1: building foundations, cut features or deposits Site S2: priory boundary wall Site S3: cut features and/or agricultural deposits (High Potential)	All	Very High
<i>Later Medieval</i> Later medieval occupation along Norton Folgate/Shoreditch High Street (outside the priory) (High potential)	Site S1	Medium or High
<i>Post-Medieval</i> Remains of 17th to 19th century cellars or wall foundations, waste pits or wells (High potential)	All	Low

Baseline Conditions - Update 2015

March 2015 ES Addendum

14.99 There are no changes to baseline conditions that were described in the December 2014 ES.

November 2015 Amendments

14.100 It is considered that there have been no material changes to the baseline conditions since the submission of the December 2014 ES and March 2015 ES Addendum, and that the baseline prepared for the December 2014 ES remains valid for the consideration of the likely impacts arising from the Amended Proposed Development.

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Environmental Design and Management

14.101 The way that potential environmental impacts have been or will be avoided, prevented, reduced or off-set through design and / or management of the Proposed Development are outlined below and have been taken into account as part of the assessment of the potential effects. Proposed environmental enhancements are also described where relevant.

Demolition and Construction

14.102 No design and / or management measures are proposed at this stage of the Proposed Development.

Environmental Design and Management - Update 2015

March 2015 ES Addendum

14.103 No further environmental design and / or management measures were considered.

November 2015 Amendments

14.104 No further environmental design and / or management measures were considered.

Potential Effects and Mitigation Measures

14.105 This section discusses the potential impacts and likely effects pertaining to archaeology during the demolition and construction phase of the Proposed Development.

Demolition and Construction Effects

14.106 The Proposed Development involves construction of a new mixed-use commercial and residential development. This would involve demolition of most of the existing late-19th and 20th century buildings. The buildings at 15-19 Norton Folgate, 5-11a Folgate Street (Site S1), 4-8 Elder Street (Site S2) and the facades of 12-15 Blossom Street (Site S1), 161 Commercial Street (Site S2) and the 1927 warehouse in the centre of Site S2 will be retained. Single level basements are proposed across the entire site footprint to varying depths.

14.107 The Site is partially (Site S1, Site S3) within the northern section of the large scheduled area of the medieval Priory of St Mary Spital, a nationally important heritage asset of very high significance. The national and local planning policies state a presumption in favour of preservation *in situ* for such heritage assets. Under the provisions of the Ancient Monuments and Archaeological Areas Act 1979 (as amended), prior scheduled monument consent (SMC) must be obtained for any works likely to affect the scheduled area. The Proposed Development would include the removal of scheduled buried heritage assets in the northern half and round the perimeter of Site S1; remains surviving beneath other areas of the Site would not be impacted. Any scheduled buried heritage assets present in Site S3 would also be removed. The construction of the Proposed Development would, therefore, clearly have an impact on scheduled archaeological remains including, in parts of the site, their complete removal, reducing their significance to negligible or none. The evidential value of the scheduled monument would potentially be diminished, although overall its significance would continue as very high.

14.108 Archaeological survival potential within the Site is considered to be varied. Beneath existing basements there is the potential for the bases of cut features of Roman and later dates, and medieval structural remains. In the areas currently unbasemented there is the potential for a full archaeological sequence from the prehistoric period onwards, including any remains of buildings associated with the scheduled medieval Priory.

14.109 It is outside the scope of this ES chapter to assess the implications of the demolition of the existing buildings in terms of the historic character and setting of nearby above ground heritage assets including the conservation area in which the Site lies. An assessment of built heritage impacts and effects is presented in **Chapter 15: Built Heritage** of this ES.

14.110 Table 14-7 examines in more detail the potential impacts that would arise from the demolition and construction phase of the Proposed Development upon the buried heritage assets.

Table 14-7 Potential Impacts within the Site During Demolition and Construction

Site Area	Figure (Please see ES Vol III: Appendix I)	Proposed Works	Description of Potential Impact on BHA	Survival Potential of BHA from Proposed Works
Site S1 (northern half excluding the area north of Fleur de Lis passage)	Figure 15 Figure 16	Demolition of existing buildings New double-depth basement with piled foundations Western area: proposed floor level would be at 8.1m OD (5.9mbgl). The foundation would be a 1.0m thick raft foundation with a level of 7.1m OD. Central and north-eastern area: proposed floor level would be at 9.9m OD (4.1mbgl). The foundation would be a 1.0m thick raft with a formation level of 8.9m OD.	Demolition of the existing buildings and breaking out of the foundation/floor slabs would potentially have an impact, truncating or removing entirely any archaeological remains directly beneath the slab. The proposed basement excavation would extend below the recorded depths of natural deposits removing all archaeological remains from the basement footprint. Remains would be removed from within the footprint of each pile if piling was carried out in advance of basement excavation.	Located within the Scheduled Monument Constraint area. Survival of archaeological remains directly beneath floor slabs has been demonstrated by the 2006 archaeological evaluation (HEA 1b) within Site S1 with archaeological remains recorded at all depths of truncation. There is high survival potential under Fleur De Lis Street and in the centre of this area with potential for Roman, later medieval and post-medieval remains. There is low-medium survival across the rest of this area. The area is outside of the priory precinct although later medieval remains would potentially be associated with the priory, such as almshouses.
Site S1 (north of Fleur de Lis passage)	Figure 15	Demolition of existing buildings. New basements with raft foundation The proposed single level basement would be at 8.1m OD (5.9mbgl). This would be founded on a raft 1.0m thick. Existing basement lowered The existing basement below the 1887 warehouse is at 12.1m OD and would be lowered to 11.6m OD (2.4mbgl).	Demolition and breaking out of the foundation/floor slabs would truncate or removing entirely any archaeological remains directly beneath the slab. The basement would extend to the predicted depth of natural, and would remove entirely any archaeological remains to the formation level. Deep cut features, such as quarry pits, may survive below this level, although their context would be lost.	Located entirely outside the scheduled monument constraint area. An area of high survival potential due to the absence of existing or past basements. Based on the results of the 2014 archaeological watching brief, demolition work is likely to impact post-medieval levelling deposits which were recorded to depths of 1.5–2.0mbgl. There is potential for later medieval remains associated with development along Shoreditch High Street.
Site S1 (south-east) 15–17 Blossom Street	Figure 18	New single level basement New basement floor level would be at 10.8m OD (3.2mbgl). The slab would be 0.5m thick with a formation level of 10.3m OD. In places the slab would be thicker to support columns.	Demolition and breaking out of the foundation/floor slabs would truncate or remove entirely any archaeological remains directly beneath the slab. The basement would extend to the predicted depth of brickearth deposits, and would remove entirely any archaeological remains to the formation level. Features cut	Located entirely within the scheduled monument constraint area. There is low survival potential across most of this area due to existing basements. Between 16 and 17 Blossom Street is an area of High Survival potential. Beneath existing basements impact on post-medieval remains and truncated Roman and later medieval remains which may survive below

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Site Area	Figure (Please see ES Vol III: Appendix I)	Proposed Works	Description of Potential Impact on BHA	Survival Potential of BHA from Proposed Works
			into the underlying brickearth, such as quarry pits, may survive although their context would be lost.	existing basements. Outside of the existing basement impact upon remains dating to the Roman, later medieval and post-medieval periods, including possible priory buildings.
Site S1 (south-east) 5–11 Folgate Street		Existing basements retained. These lie at 11.3–11.6m OD (2.4–2.7mbgl). Underpinning Piled rafts between 0.2–0.5m thick are proposed beneath the existing basement level.	Demolition and breaking out of the foundation/floor slabs would locally truncate or remove entirely any archaeological remains directly beneath the slab within the areas of proposed new raft foundations.	Located entirely within the scheduled monument constraint area. The area has low–medium survival potential beneath existing basements. Impact would be on post-medieval remains and truncated Roman and later medieval remains which may survive below existing basements.
Site S1 (south-west) Blossom Place	Figure 15 Figure 16	Basement and underpinning proposed (basement extension to the rear of 14–15 Norton Folgate). Basement and strip foundation proposed The area at the rear of 14–15 Norton Folgate would be excavated to a depth of 10.7m OD (3.4mbgl) to allow insertion of a basement level raft foundation. The proposed strip foundation would be c 1.0m wide and excavated to the depth of existing foundations assumed to be 10.7m OD (3.4mbgl). Piled foundations Piles are proposed within the northern third of Blossom Place.	The raft and strip foundations would entirely remove any remains within the proposed footprint to this depth. If sheet piling is used this would be remove any remains within the footprint of the proposed work. Remains would be removed from within the footprint of each pile.	Located entirely within the scheduled monument constraint area. Blossom Place and the rear of 14–15 Norton Folgate area areas of high survival potential due to the absence of existing or past basements. All other areas have low–moderate survival potential due to the existing basements. Impact upon remains dating to the Roman, later medieval and post-medieval periods, including possible priory buildings.
Site S1 (south-west) 13–19 Norton Folgate	Figure 15 Figure 16	Buildings at 15–19 Norton Folgate and existing basements to be retained These lie at 11.2–12.2m OD (2.8–3.8mbgl). Underpinning Underpinning of existing core walls is proposed to an unknown depth.	Excavation for the underpinning would remove any remains within the proposed footprint.	Located entirely within the scheduled monument constraint area. An area of low–medium survival potential due to the existing basements. Impact upon post-medieval remains and truncated Roman and later medieval remains which may survive below existing basements.
Site S2 (west and north)	Figure 20 Figure 21	Demolition of existing buildings. 1927 warehouse in centre	The basement would extend to the predicted depth of natural deposits, and would remove entirely any archaeological	Located entirely outside the scheduled monument constraint area. Survival potential across most of

Site Area	Figure (Please see ES Vol III: Appendix I)	Proposed Works	Description of Potential Impact on BHA	Survival Potential of BHA from Proposed Works
		of site to be retained. New basement with raft foundation. The proposed single level basement would be at 11.1m OD (2.9mbgl). This would be founded on a raft 0.6–0.9m thick. Localised deeper basements are proposed to a depth of 10.0m OD. This would be founded on a raft 0.6m thick	remains to the formation level. Deep cut features, such as quarry pits, may survive below this level, although their context would be lost.	this area is low–medium; there is high potential in the centre of the site. Based on the results of the 2014 archaeological watching brief, demolition work is likely to comprise post-medieval levelling deposits which were recorded to depths of 1.5–2.0mbgl. There is potential for remains of the priory precinct wall in the southern half of this area. Truncated Roman remains may also be present.
Site S2 (east)	Figure 20 Figure 21	4–8 Elder Street and 161 Commercial Street to be retained. Demolition of all other buildings. Existing basement lowered and extended The existing single level basement is at 12.6– 12.9m OD (2.1mbgl) which would be lowered to 12.6m OD and extended to the rear of 8 Elder Street. Underpinning to existing footings at 4–6 Elder Street is proposed.	Extension of the existing basement to the rear of 8 Elder Street would remove entirely any archaeological remains to the formation level. Deep cut features, such as quarry pits, may survive below this level, although their context would be lost. The proposed underpinning would further remove any archaeological remains beneath the existing basements within the proposed footprint.	Located entirely outside the scheduled monument constraint area An area of low–medium survival potential. Based on the results of the 2014 archaeological watching brief, demolition work is likely to impact post-medieval levelling deposits beneath existing basements. There is potential for remains of the priory precinct wall in the southern half of this area. Truncated Roman remains may also be present.
Site S3	Figure 22 Figure 23	Demolition of all existing buildings New basement with raft foundation and piled secant perimeter wall The proposed lower ground floor would be at 2.6mbgl (11.4m OD), founded on a 0.8m thick raft extending to a depth of 3.4mbgl (10.6m OD). Localised deeper basement in the north-eastern corner would be at 4.2mbgl (9.8m OD) founded on a 0.8m thick raft extending to a depth of 5.0mbgl (9.0m OD). Underpinning or a secant pile wall is proposed for the party wall along the southern edge of S3.	The results of the 2014 archaeological watching brief recorded only modern deposits to a depth of 1.4mbgl. As a result demolition of the existing buildings and breaking out of the foundation/floor slabs would likely not extend beyond modern deposits The basement would extend to the predicted depth of natural, and would remove entirely any archaeological remains to the formation level. Deep cut features, such as quarry pits, may survive below this level, although their context would be lost. Due to the depths of proposed basements and foundations underpinning is expected to have minimal impact as all archaeological remains will have been removed.	Located entirely within the scheduled monument constraint area. An area of medium survival potential is situated within the central southern section of the site. The remainder of the site has low–moderate survival potential. Results of the 2014 archaeological watching brief recorded only modern deposits to a depth of 1.4mbgl. The area is within the outer precinct of the priory and there is potential for priory remains which may include cultivation soils.

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Summary of Demolition and Construction Effects

14.111 Table 14-8 below provides a summary of the predicted environmental effects on buried heritage assets prior to mitigation.

Table 14-8 Significance of Effect

Resource / Receptor (Potential for remains on-site)	Heritage Asset significance	Magnitude of Change	Significance of Environmental Effect (prior to mitigation)
<i>Roman</i> Truncated remains of Roman cut features (ditches, quarrying) or cultivation soils (Medium potential)	Medium	High Demolition, basement excavation, underpinning	Major/Moderate Adverse
<i>Roman</i> Remains of Roman burials (Low potential)	Medium		Major/Moderate Adverse
<i>Later Medieval</i> Remains of 11th–12th century water system and 12th century road (High potential)	Medium		Major/Moderate Adverse
<i>Later Medieval</i> St Mary Spital Priory scheduled monument. Later medieval features associated with the priory would include Site S1: building foundations, cut features or deposits Site S2: priory boundary wall Site S3: cut features and/or agricultural deposits (High Potential)	Very High		Major Adverse
<i>Later Medieval</i> Later medieval occupation along Norton Folgate/Shoreditch High Street (outside the priory) (High potential)	Medium or High		Major/Moderate or Major Adverse
<i>Post Medieval</i> Remains of 17th to 19th century cellars or wall foundations, waste pits or wells (High potential)	Low		Moderate/Minor Adverse

Site Preparation, Demolition and Construction Effects - Update 2015

March 2015 ES Addendum

14.112 The foundation and pile depths for the Revised Scheme have not changed since the December 2014 Scheme.

14.113 The assessment of the Revised Scheme has enabled a more detailed review of the overlay of the Proposed Development on the Site. As such the assessment of effects on the Priory and Hospital of St Mary Spital Scheduled Monument has been updated to consider the fact that the only areas of the Priory and Hospital of St Mary Spital that are of the highest significance are in the southern part of S1. This is where the intrusive works are small and limited to works that are essential for the redeveloped buildings to function efficiently or where new foundations are required such as under 14 and 15 Norton Folgate. All works in the north part of

S1 are outside of the Priory. The works in S3 are in the gardens of the priory which, whilst scheduled, are of lower archaeological significance. This would result in a **moderate adverse** effect on the Scheduled Monument, rather than the major adverse effect reported in the December 2014 ES.

14.114 All other residual demolition and construction effects reported in the December 2014 ES remain valid.

November 2015 Amendments

14.115 The December 2014 ES identified that a full basement under the entire footprint of the building will be constructed, with the basement slab at approximately 8.10 AOD, and 9.90 AOD on the eastern part of Building S1. The November 2015 amendments will also incorporate part of the existing 12 & 13 Blossom Street Warehouse basement, which is proposed to be lowered to 9.90 AOD. The existing Blossom Street Warehouse buildings to be retained sit on strip footings and these will be underpinned to provide structural support. Underpinning of the existing footings, where neighbouring works are likely to excavate lower than the existing foundations, will be carried out to ensure the foundations are not undermined.

14.116 Taking into account the nature and scale of the proposed November 2015 Amendments, and that works in the north part of S1 are outside of the Priory, it is not considered that the Amended Proposed Development would result in any new or change to the likely effects and significance concluded within the December 2014 ES and March 2015 ES Addendum.

14.117 It is considered that the likely residual effects concluded in the December 2014 ES and March 2015 ES Addendum remain valid.

Mitigation and Monitoring Measures

14.118 Following on from the assessment, this section outlines the mitigation measures proposed, that are over-and-above the environmental design and management measures described previously. Where appropriate, future monitoring and / or environmental management required to verify the predictions and / or fine tune mitigation measures, or ensure the potential effects are adequately controlled, are also outlined.

14.119 The mitigation and monitoring measures relating to both the demolition and construction, and operational phases, are outlined below.

Demolition and Construction

14.120 Based on this assessment a programme of phased archaeological investigation and recording is required. Mitigation measures for each area of the Site are proposed as follows:

- For Site S1 a written scheme of investigation will be prepared to accompany the Scheduled Monument Application detailing the works to take place. This will combine full archaeological excavation of all significant remains prior to development and an archaeological watching brief on area of low significance of where the impact is likely to be minimal (i.e. piling). Preservation in-situ of remains associated with St Mary Spital Priory at the rear of 14–15 Norton Folgate may be required dependent on the extent and degree of survival of any remains.
- For Site S2 further investigation will be carried out prior to the determination of planning consent, in order to clarify the nature, survival and significance of any archaeological assets that may be affected. Although the precise details would need to be agreed with the local authority's archaeological adviser, it is suggested that the most appropriate investigation strategy is likely to entail archaeological evaluation trenches/pits.
- The results of the evaluation in Site S2 will allow an informed decision to be made in respect of an appropriate mitigation strategy for any significant archaeological assets. This will entail preservation by record of assets of significance: advancing understanding of asset significance through targeted archaeological excavation in advance of development. This might be combined with a watching brief during ground works for remains of lesser significance.
- For Site S3 a written scheme of investigation will be prepared to accompany the Scheduled Monument Application detailing the works to take place. This will entail initial archaeological evaluation post-demolition to assess what, if any remains of significance require archaeological investigation. Further

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works will be dependent upon the evaluation but will, at a minimum require an archaeological watching brief during ground works and may require more extensive excavation prior to development.

14.121 Under the provisions of the Ancient Monuments and Archaeological Areas Act 1979 (as amended), scheduled monument consent (SMC) must be obtained for Sites S1 and S3, separately from any planning permissions, before any works take place which affect the scheduled area. If SMC is granted, a condition of archaeological mitigation is likely to be applied, drawn up by the Inspector of Ancient Monuments, together with the LPA and its archaeological advisors. Any archaeological work would need to be undertaken in consultation with the local authority's archaeological advisor and English Heritage with regards to scheduled monument consent for Sites S1 and S3, in accordance with an approved archaeological Written Scheme of Investigation (WSI).

Mitigation and Monitoring Measures - Update 2015

March 2015 ES Addendum

14.122 No additional mitigation measures or changes to those measures identified previously are assessed as being required to alleviate the impacts associated with the proposed changes.

November 2015 Amendments

14.123 No additional mitigation measures or changes to those measures identified previously are assessed as being required to alleviate the impacts associated with the November 2015 Amendments.

Residual Effects and Conclusions

Residual Effects – Update 2015

Demolition and Construction

14.124 The effect on archaeological remains would be reduced to an acceptable level through an appropriate programme of mitigation as set out above, resulting in no significant residual effects to remains not associated with the scheduled monument.

14.125 The Proposed Development within Sites S1 and S3 would require Scheduled Monument Consent.

Summary

14.126 The Site is partially (Sites S1 and S3) situated in the nationally designated (protected) scheduled monument of the medieval Priory and Hospital of St Mary Spital. The Site also has high potential for post-medieval, later medieval and Roman remains.

14.127 Previous archaeological investigation within Sites S1 and S2 have demonstrated the potential for archaeological remains to survive in all areas of the site. Areas of low survival potential have been truncated by historic or existing basements and archaeological remains are likely to consist of truncated later medieval and Roman cut features. Areas of moderate and high survival potential, in areas without basements or where basement depths are shallower, are likely to contain structural remains and deposits dating to the later medieval period and post-medieval period overlying earlier remains.

14.128 Within the Site the primary impact would be from the excavation for basements which would remove any archaeological remains not removed by previous basement excavation. There would be additional impacts from foundations and underpinning where archaeological remains have not been previously removed during basement excavation.

14.129 Following the successful implementation of an agreed mitigation strategy as outlined above, the residual demolition and construction effects on buried heritage assets would be negligible for remains not associated with the Scheduled Monument.

14.130 Prior written permission, known as Scheduled Monument Consent (SMC) is required from the Secretary of State for works physically affecting a scheduled monument. A SMC is separate from the statutory planning process.

14.131 Table 14-9 summarises the potential residual effects of the Proposed Development on buried heritage assets below presents the residual effects following the assessment of the Amended Proposed Development.

Table 14-9 Summary of Residual Effects on Buried Heritage Assets

Resource / Receptor (Potential for remains on-site)	Site(s)	Effect (incorp. environmental design & management)	Mitigation and Monitoring	Residual Effect (incorp. mitigation & monitoring)	Significance Conclusion
Demolition and Construction					
Roman Truncated remains of Roman cut features (ditches, quarrying) or cultivation soils (Moderate potential)	All	Major / Moderate Adverse	<p>Site S1: Targeted archaeological evaluation prior to development as preservation by record.</p> <p>Site S2: Pre-determination archaeological investigation to inform an appropriate mitigation strategy as part of planning consent.</p> <p>Site S3: archaeological evaluation post-demolition to assess survival and significance of any archaeological remains; dependant on results archaeological watching brief and/or excavation may be required.</p>	Negligible	Not Significant
Roman Remains of Roman burials (Low potential)	All	Major / Moderate Adverse	<p>Site S1: Targeted archaeological evaluation prior to development as preservation by record.</p> <p>Site S2: Pre-determination archaeological investigation to inform an appropriate mitigation strategy as part of planning consent.</p> <p>Site S3: archaeological evaluation post-demolition to assess survival and significance of any archaeological remains; dependant on results archaeological watching brief and/or excavation may be required.</p>	Negligible	Not Significant
Later Medieval Remains of 11th–12th century water system and 12th century road (High potential)	Site S1	Major / Moderate Adverse	Targeted archaeological evaluation prior to development as preservation by record.	Negligible	Not Significant

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Resource / Receptor (Potential for remains on-site)	Site(s)	Effect (incorp. environmental design & management)	Mitigation and Monitoring	Residual Effect (incorp. mitigation & monitoring)	Significance Conclusion
<p><i>Later Medieval</i> St Mary Spital Priory scheduled monument. Later medieval features associated with the priory would include Site S1: building foundations, cut features or deposits Site S2: priory boundary wall Site S3: cut features and/or agricultural deposits (High Potential)</p>	All	Major Adverse	<p>Site S1: Targeted archaeological excavation prior to development; may be combined with watching brief in areas of low significance and where impact is likely to be minimal. Dependant on the survival of remains at the rear of 14-15 Norton Folgate preservation in-situ of remains of very high significance may be required.</p> <p>Site S2: Pre-determination archaeological investigation to inform an appropriate mitigation strategy as part of planning consent.</p> <p>Site S3: archaeological evaluation post-demolition to assess survival and significance of any archaeological remains; dependant on results archaeological watching brief or excavation may be required.</p>	<p>Major Adverse Moderate Adverse</p> <p><i>Prior written permission, known as Scheduled Monument Consent (SMC) is required from the Secretary of State for works physically affecting a scheduled monument</i></p>	Significant
<p><i>Later Medieval</i> Later medieval occupation along Norton Folgate/Shoreditch High Street (outside the priory) (High potential)</p>	Site S2	Major / Moderate or Major Adverse	Pre-determination archaeological investigation to inform an appropriate mitigation strategy as part of planning consent.	Negligible	Not Significant
<p><i>Post Medieval</i> Remains of 17th to 19th century cellars or wall foundations, waste pits or wells (High potential)</p>	All	Moderate / Minor Adverse	<p>Site S1: Targeted archaeological evaluation prior to development as preservation by record.</p> <p>Site S2: Pre-determination archaeological investigation to inform an appropriate mitigation strategy as part of planning consent.</p> <p>Site S3: archaeological evaluation post-demolition to assess survival and significance of any archaeological remains; dependant on results archaeological watching brief or excavation may be required.</p>	Negligible	Not Significant

Conclusion – Update 2015

14.132 Overall, the Amended Proposed Development does not result in any changes to the archaeology effects and significance presented in the December 2014 ES and March 2015 ES Addendum. As such, the conclusions set out within the March 2015 ES Addendum and the December 2014 ES remain valid.

Effect Interactions and Cumulative Effect Assessment

Assessment of Combined Effect of Individual Effects on a Single Receptor

14.133 The combined effect of individual effects occurs when a single receptor is affected by more than one effect at any point in time. An exercise which tabulates the residual effects identified within the ES against relevant receptors, and so identifies the potential for combined cumulative effects, has been undertaken.

14.134 Reference should be made to **Chapter 16: Effect Interactions** of this ES for further details.

Assessment of Cumulative Effect of the Proposed Development with Other Development Schemes

14.135 This section of the chapter assesses the potential effects of the Proposed Development in combination with the potential effects of other development schemes within the surrounding area, as listed within **Chapter 2: EIA Methodology** of this ES.

14.136 In terms of the historic environment, an elevated, cumulative effect, could occur where the Proposed Development and other nearby developments both have a physical impact upon an above ground or buried heritage asset, that is common to both schemes. This combined impact could potentially result in an effect that is greater than that of each scheme when considered individually.

14.137 Only those projects that fall within the study area (within ~200m of the Site) have been reviewed, as beyond this the potential for buried heritage assets has not been assessed and the cumulative impact cannot be quantified. The projects assessed include: Principal Place (LBH); The Stage (Shoreditch) (LBH); and .Electricity Sub-Station (Hearn Street, LBH).

14.138 For the post-medieval period, the schemes are likely to share evidence of domestic and industrial development, considered to be widespread, and there is unlikely to be a significant cumulative effect. Archaeological remains prior to the post-medieval period are likely to be quite different within the surrounding area and no cumulative effects have been identified. Therefore the cumulative effect is anticipated to be **negligible**.

Assessment of Cumulative Effect of the Site with Other Development Schemes - Update 2015

March 2015 ES Addendum

14.139 Cumulative impacts during demolition and construction of the Proposed Development were assessed to be negligible. The Revised Scheme has been assessed and the Cumulative Impact Assessment remains unchanged.

November 2015 Amendments

14.140 The cumulative assessment presented within the December 2014 ES defined only those projects that fall within the study area (within ~200m of the Site) have been reviewed, as beyond this the potential for buried heritage assets has not been assessed and the cumulative impact cannot be quantified.

14.141 There are no new projects that have come forward since the preparation of the March 2015 ES Addendum that fall within this radius for review. As such, the conclusions set out within the March 2015 ES Addendum and the December 2014 ES remain valid.

Summary of the 2011 Consented Scheme

14.142 An archaeological report (prepared in 2006) presented the results of an excavation of eight evaluation trenches at 13-20 Norton Folgate and 2-10 Shoreditch High Street.

14.143 The report stated that the potential for survival of deep cut features of local significance dating from the Roman, medieval and post-medieval periods is good. The impact of the development on remaining archaeological deposits would be to completely truncate the surviving stratigraphy across the site and therefore remaining archaeological deposits should be excavated in advance of any further ground reduction.

14.144 A Method Statement was produced in October 2010 and presented an archaeological strategy for field excavation. The Method Statement proposed that there should be a controlled archaeological excavation in areas of the site, preceded by an archaeological watching brief on the temporary works prior to the controlled excavation, and a watching brief on other temporary works and piling.

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References

- Ref. 14-1 Ancient Monuments and Archaeological Areas Act, 1979
- Ref. 14-2 Planning (Listed Buildings and Conservation Areas) Act, 1990
- Ref. 14-3 Burial Act, 1857; Disused Burial Grounds Act 1884; Disused Burial Grounds (Amendments) Act 1981; Pastoral Measure 1983
- Ref. 14-4 National Planning Policy Framework, (2012)
- Ref. 14-5 Greater London Authority, (July 2011); The London Plan. Spatial Development Strategy for Greater London.
- Ref. 14-6 Greater London Authority, (October 2013); Revised Early Minor Alterations to the London Plan.
- Ref. 14-7 Greater London Authority, (January 2014); Draft Further Alterations to the London Plan.
- Ref. 14-8 London Borough of Tower Hamlets, (2010); Core Strategy.
- Ref. 14-9 London Borough of Tower Hamlets, (2013); Managing Development Document
- Ref. 14-10 English Heritage (2008) Conservation principles, policies and guidance; Swindon: English Heritage
- Ref. 14-11 Institute for Archaeologists, (Nov 2012); By-laws, standards and policy statements of the Institute for Archaeologists, standard and guidance: historic environment desk-based assessments, rev, Reading.
- Ref. 14-12 Institute for Archaeologists (Oct 2012); Standards and guidance for archaeological advice, Reading.
- Ref. 14-13 Greater London Archaeology Advisory Service (2009); Standards for Archaeological Work London Region, External Consultation.
- Ref. 14-14 London Borough of Tower Hamlets 2007; Elder Street Conservation Area
- Ref. 14-15 MoLAS (2006), The Nicholls & Clarke and Depot Sites 13–20 Shoreditch High Street, 5–11a Folgate Street, 10 and 11–17 Blossom Street London E1. Evaluation Report
- Ref. 14-16 MOLA (2009), Nicholls and Clarke Building 3-9 Shoreditch High Street, 12-14 Blossom Street, 20 Norton Folgate , E1. Watching Brief Report NNF09
- Ref. 14-17 Allford Hall Monaghan Morris, KM Heritage, MOLA, AKT, 2013 Blossom St E1, Ancient Monument and Heritage, October 2013
- Ref. 14-18 Greater London Authority, (2015); The London Plan: Spatial Proposed Development Strategy for Greater London (Consolidated with Alterations since 2011).
- Ref. 14-19 Greater London Authority, (2015); Minor Alterations to The London Plan: Spatial Proposed Development Strategy for Greater London (Consolidated with Alterations since 2011).