



St Michaels Church, Tilehurst

Methodology relating to archaeological deposits and human remains

June 2021

Client: St Michael's Parochial Church Council

Issue No: 1

OA Reference No:

NGR: SU 67370 72937



Client Name: St Michael's Parochial Church Council
Document Title: St Michaels Church, Tilehurst
Document Type: Methodology relating to archaeological deposits and human remains
Report No.: 1
Grid Reference: SU 67370 72937
Planning Reference: N/A
Site Code: TISMCH21
Invoice Code: TISMCHWB

HER No.:

OA https://files.oxfordarchaeology.com/nextcloud/index.php/apps/files/?dir=/Projects%20Working%20Folder/OAS/Tilehurst_St%20Michaels%20Church%20Watching%20Brief&fileid=9936981
Docu
ment
File
Locati
on:

OA Graphics File TBC
Location:

Issue No: 1

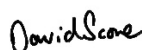
Date: June 2021

Prepared by: Adam Fellingham (Supervisor)

Checked and Edited by: Ben Ford (Senior Project Manager)

Approved for Issue by: David Score (Head of Fieldwork)

Signature:



Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

OA East
15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SQ

t. +44 (0)1865 263 800

t. +44 (0)1223 850 500

OA North
Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD
t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk, w. oxfordarchaeology.com, Oxford Archaeology is a registered Charity: No. 285627



Director and Chief Executive
Gill Hey BA PhD FSA MCIA
Private Limited Company, No: 1638597
Registered Charity, No: 285627
Registered Office: Oxford Archaeology Ltd
Janus House, Osney Mead, Oxford OX2 0ES

St Michaels Church, Tilehurst

Methodology relating to archaeological deposits and human remains

Centred on SU 67370 72937

Contents

1	INTRODUCTION	1
1.1	Project details	1
1.2	Location, topography and geology.....	1
1.3	Potential.....	1
2	PROJECT AIMS	2
2.1	General	2
2.2	Specific aims and objectives	2
3	PROJECT SPECIFIC EXCAVATION AND RECORDING METHODOLOGY	3
3.1	Scope of works.....	3
3.2	Programme	3
3.3	Site specific methodology	4
3.4	Human remains.....	4
3.5	Finds recovery.....	4
3.6	Environmental sampling	5
3.7	Treatment of Treasure.....	5
4	PROJECT SPECIFIC REPORTING AND ARCHIVE METHODOLOGY	6
4.1	Programme	6
4.2	Content.....	6
4.3	Specialist input.....	6
5	HEALTH AND SAFETY	7
5.1	Roles and responsibilities.....	7
5.2	Method statement and risk assessment	7
	OA STANDARD FIELDWORK METHODOLOGY APPENDICES	9
	APPENDIX A GENERAL EXCAVATION AND RECORDING METHODOLOGY	9
A.1	Standard methodology – summary.....	9
A.2	Relevant industry standards and guidelines.....	10
A.3	Relevant OA manual and other supporting documentation	10
	APPENDIX B GEOMATICS AND SURVEY	11

B.1	Standard methodology - summary	11
B.2	Relevant industry standards and guidelines.....	13
B.3	Relevant OA manual and other supporting documentation	13
APPENDIX C ENVIRONMENTAL EVIDENCE		14
C.1	Standard methodology – summary.....	14
C.2	Relevant industry standards and guidelines.....	14
C.3	Relevant OA manual and other supporting documentation	15
APPENDIX D ARTEFACTUAL EVIDENCE		16
D.1	Standard methodology - summary	16
D.2	Relevant industry standards and guidelines.....	17
D.3	Relevant OA manual and other supporting documentation	17
APPENDIX E HUMAN REMAINS		18
E.1	Standard methodology - summary	18
E.2	Relevant industry standards and guidelines.....	20
E.3	Relevant OA manual and other supporting documentation	21
APPENDIX F REPORTING.....		22
F.1	Standard methodology - summary	22
F.2	Relevant industry standards and guidelines.....	23
APPENDIX G LIST OF SPECIALISTS REGULARLY USED BY OA.....		25
APPENDIX H DOCUMENTARY ARCHIVING		27
	Standard methodology – summary.....	27
H.2	Relevant industry standards and guidelines.....	28
H.3	Relevant OA manual and other supporting documentation	29
APPENDIX I HEALTH AND SAFETY		30
I.1	Standard Methodology - summary	30
I.2	Relevant industry standards and guidelines.....	30

1 INTRODUCTION

1.1 Project details

- 1.1.1 Oxford Archaeology (OA) has been commissioned by St Michael's Parochial Church Council to undertake an archaeological watching brief on the rebuild of 13 meters of eastern perimeter boundary wall adjacent to the fir tree and associated ground works at St Michael's Church, Tilehurst.
- 1.1.2 Following the last Quinquennial Inspection/Report in 2017 a number of general issues with the Old Churchyard boundary wall were identified. A specific survey of the boundary wall was carried out by the Rector, John Stevenson and David Bardwell on 09/07/2020 and the results recorded in a Survey Diagram (See Section 6). The original survey identified a 9m section in Routh Lane which was followed up by a detailed review of the condition of the wall and measured as a 13m section.
- 1.1.3 Two specific areas of concern were identified and classified as High Priority. This Requirement Specification covers:
- Routh Lane – Rebuild 13m of wall where the Churchyard ground level is pushing the wall towards Routh Lane
- 1.1.4 Although the project is subject to the local planning application process (Ref: RBC 201542), no archaeological conditions have been imposed (Fiona MacDonald, Berkshire Archaeology, e-mail dated 4th June 2021).
- 1.1.5 No burial licence (relating to human remains) is required when working in this churchyard – such remains are covered under Church Faculty jurisdiction. This document relates to the advice of the Oxford Diocesan Advisory Committee (Liz Kitch, Senior Church Buildings Officer, DAC, Diocese of Oxford by e-mail 17th October 2020).

1.2 Location, topography and geology

- 1.2.1 St Michael's Church, Tilehurst is bounded to the north by residential properties, to the east and south by Routh Lane and by New Lane Hill to the west. The National Grid Reference for the sites centre is SU 67370 72937.
- 1.2.2 The underlying bedrock geology within the site is London Clay Formation, a sedimentary bedrock formed approximately 48 to 56 million years. This is overlain by superficial geology of Winter Hill Gravel (consisting of Sand and Gravel) formed up to 2 million years during the Quaternary Period. (Ref: <https://mapapps.bgs.ac.uk/geologyofbritain/>)

1.3 Potential

- 1.3.1 The proposed area of rebuild has approximately 0.70m to 0.80m of higher internal deposits associated with the cemetery at St Michael's Church. These higher internal deposits represent cemetery soils for burials of human remains during the lifetime of the church and will have the potential for both articulated and disarticulated human remains.

2 PROJECT AIMS

2.1 General

2.1.1 The aims of the watching brief are to determine and understand the nature, function and character of any archaeological remains within their cultural and environmental setting. Other general aims include:

- establish the presence/absence of archaeological remains and human burials/skeletal remains within the impact depth of the ground works,
- determine and confirm the character of any remains present,
- determine or estimate the date range of any remains from artefacts or otherwise,
- to disseminate the results of the work in a format and manner proportionate to the significance of the findings.

2.2 Specific aims and objectives

2.2.1 The specific aims and objectives of the watching brief are:

- To advise as to how to minimise the amount of ground-disturbance during the work to minimise the likelihood of encountering human remains e.g. the amount of spoil generated should be reduced to the minimal amount by minimising the groundwork needed to rebuild the wall.
- All spoil must be retained within the cemetery because it may contain human remains. All excess spoil (i.e. that which cannot be replaced within the necessary groundworks associated with the rebuild) will need to be placed in another suitable location within the cemetery.
- If disarticulated remains (individual bones, or pieces of bone) are discovered they should be reverently and carefully reinterred as close as possible to where they were found, as quickly as possible.
- to record any *in-situ* human remains and ensure that these are not disturbed during the demolition and rebuilding work.
- If articulated remains are found works must stop and the Diocesan Registry contacted for further directions. The archaeologist must also be contacted to attend and unless the works to the boundary wall can not be completed with the remains in situ then they will need to be excavated and relocated with the agreement of all parties.
- If human remains need to be excavated by the archaeologist then the site will need to be screened off from public view until completed.
- to record and respectfully collect disarticulated human remains for reburial on site.

3 PROJECT SPECIFIC EXCAVATION AND RECORDING METHODOLOGY

3.1 Scope of works

3.1.1 The scope of works has been fully set out within the St Michael's Church Specification Document (REF. SMP/12/002/WP2, REV 1.2 – see Section 6 this document) this has been summarised and slightly modified here:

- Dismantle approx. 13m of wall and the 4 buttresses and retain the recovered bricks.
- Remove minimal Churchyard soil deposits to the rear of the wall (between a patch of brambles in the Churchyard and the Fir Tree adjacent to the boundary wall where it has been pushing the wall towards Routh Lane) as is absolutely necessary to enable the rebuild. Temporary propping of vertical soil profiles rather than battered excavation of cemetery soils should be used where possible;
 - Excess soil left over at the completion of the works, following being excavated from behind the wall, shall be used to fill holes and depressions within the Churchyard. This is because of the risk that the soil may contain bone fragments.
 - Rubble recovered during the excavations shall be removed from site and disposed of.
- Rebuild the wall section using the recovered bricks and with lime mortar.
- Rebuild 4 new buttresses, in approximately the same position as the existing buttresses, and with lime mortar.
- Backfill the Churchyard ground by hand to make good any excavated soil behind the wall.

3.1.2 The Contractor shall note that the excavation work will be supervised on an intermittent basis by an archaeologist employed by St Michael's as there could be articulated and disarticulated human remains close to the wall which may be disturbed by the works.

3.1.3 The contractor is strongly advised to complete the rebuilding with as minimal groundworks as possible this is to reduce or eliminate the risk of uncovering disarticulated as well as articulated human remains.

3.1.4 The contractor is advised to use temporary propping of exposed cemetery soil profiles rather than battered excavation.

3.2 Programme

3.2.1 It is anticipated that the fieldwork will take up to 1 day on an intermittent basis (i.e. 2 visits) to complete, by a Watching Brief Archaeologist, under the management of Ben Ford BA MCIfA SMSTS FSA, Senior Project Manager.

3.2.2 All fieldwork undertaken by Oxford Archaeology (South) is overseen by the Head of Fieldwork, David Score MCIfA.

3.3 Site specific methodology

- 3.3.1 A summary of OA's general approach to excavation and recording can be found in Appendix A. Standard methodologies for Geomatics and Survey, Environmental evidence, Artefactual evidence and Burials can also be found below (Appendices B, C, D and E respectively).
- 3.3.2 The site specific methodology for the watching brief will be as follows:
- The areas of existing upstanding wall will be removed by the contractor in the area of the site which requires replacing and this will be monitored by an archaeologist as required.
 - The foundations of the wall will be removed to the top of archaeological deposits or natural geology.
 - If any articulated human remains are discovered, they are not to be removed or otherwise disturbed, all work will stop and the archaeologist will advise the best course of action in consultation with the Diocesan Registry (see 3.4 below).
 - If disarticulated remains are encountered they must be reburied in the churchyard as soon as reasonably practicable.
 - If archaeological deposits are encountered then any necessary further removal will need to be undertaken by the archaeologist. All archaeological deposits will be excavated and recorded stratigraphically in accordance with the approved recording system unless otherwise agreed
 - Spoil will be monitored in order to recover artefacts and any disarticulated human remains for reburial at the site

3.4 Human remains

- 3.4.1 The site has moderate to high potential to contain human remains as it is located adjacent to St Michael's Church and the surrounding area was used as a churchyard during the lifetime of the church.
- 3.4.2 If human remains are encountered all works will stop and advice will be sought from the archaeologist prior to works continuing. If the archaeologist concludes that the human bones are articulated then the Diocesan Registry will be contacted for further directions.
- 3.4.3 If the wall can not be rebuilt whilst leaving the articulated human remains undisturbed then archaeological excavation and reburial within the site will need to be agreed by all parties.
- 3.4.4 Procedures detailed in Appendix E for the excavation of human remains will be consulted.
- 3.4.5 It should be noted that any exposures of human remains will require the works to be screened from public view.

3.5 Finds recovery

- 3.5.1 Artefact assemblages will be recovered (by context) by hand to assist in dating the stratigraphic sequences and for example to obtain ceramic assemblages for comparison with other sites. The finds will contribute to the interpretation of the

functions and activities taking place on (and off) the site, as well as reveal aspects of trade and economy. All artefacts from excavated contexts will be retained unless they are of recent origin. In these cases, sufficient material will be retained to date and establish the function of the feature.

3.6 Environmental sampling

- 3.6.1 Appendix C provides an environmental sampling strategy. In general, different environmental sampling strategies may be employed according to the perceived importance of the strata under investigation.

3.7 Treatment of Treasure

- 3.7.1 Finds discovered by the archaeological contractor, falling under the statutory definition of Treasure (as defined by the Treasure Act of 1996 and its revision of 2002) will be reported immediately to the relevant Coroner's Office, the landowner and HCC. A Treasure Receipt (obtainable from either the FLO or the DCMS website) must be completed and a report submitted to the Coroner's Office and the FLO within 14 days of understanding the find is Treasure. Failure to report within 14 days is a criminal offence. The Treasure Receipt and Report must include the date and circumstances of the discovery, the identity of the finder (put as unit/contractor) and (as exactly as possible) the location of the find.

4 PROJECT SPECIFIC REPORTING AND ARCHIVE METHODOLOGY

4.1 Programme

- 4.1.1 The report will be completed within 8 weeks of the completion of the fieldwork.
- 4.1.2 A copy of the report in Adobe Acrobat (.pdf) format will be provided to St Michael's Church Parochial Church Council and the DAC. Bound copies of the completed report will also be provided if requested.

4.2 Content

- 4.2.1 The content of this report will be as defined in Appendix F.

4.3 Specialist input

- 4.3.1 OA has a large pool of internal specialists, as well as a network of external specialists with whom OA have well established working relationships. A general list of these specialists is presented in Appendix G; in the event that additional input should be required, an updated list of specialists can be supplied.

5 HEALTH AND SAFETY

5.1 Roles and responsibilities

- 5.1.1 The Senior Project Manager, Ben Ford SMSTS, has responsibility for ensuring that safe systems of work are adhered to on site. He delegates elements of this responsibility to the Project Officer, who implements these on a day to day basis.
- 5.1.2 The Director with responsibility for Health and Safety at OA is Dan Poore Tech IOSH (Chief Business Officer).

5.2 Method statement and risk assessment

- 5.2.1 A summary of OA's general approach to health and safety can be found in Appendix I. A risk assessment has also been undertaken and approved and will be kept on site, along with OA's standard Health and Safety file, which will contain all relevant health and safety documentation.
- 5.2.2 The Health and Safety file will be available to view at any time.

6 ST MICHAEL'S CHURCH SPECIFICATION DOCUMENT

St Michael's Tilehurst - Requirement Specification
Old Churchyard Boundary Wall Rebuild – Work Package 2 (Ref. SMP/12/002/WP2, Rev 1.2)

Purpose / Objective:

To rebuild 13m of wall where the Churchyard ground level is pushing the wall towards Routh Lane.

Background

Following the last Quinquennial Inspection/Report in 2017 a number of general issues with the Old Churchyard boundary wall were identified.

A specific survey of the boundary wall was carried out by the Rector, John Stevenson and David Bardwell on 09/07/2020 and the results recorded in a Survey Diagram (See Appendix A). The original survey identified a 9m section in Routh Lane which was followed up by a detailed review of the condition of the wall and measured as a 13m section.

Two specific areas of concern were identified and classified as High Priority. This Requirement Specification covers:

- Routh Lane – Rebuild 13m of wall where the Churchyard ground level is pushing the wall towards Routh Lane.

Supporting Documentation

- Architect Letter - Supplied Separately

Work Package Requirements

Routh Lane (Section of wall marked in Red in Appendix A and noted “Rebuild 9m, High)

Key Requirements:

- Carefully dig out the Churchyard ground behind the 13m section of wall between a patch of brambles in the Churchyard and the Fir Tree adjacent to the boundary wall where it has been pushing the wall towards Routh Lane.
 - o Excess soil left over at the completion of the works, following being excavated from behind the wall, shall be used to fill holes and depressions within the Churchyard. This is because of the risk that the soil may contain bone fragments.
 - o Rubble recovered during the excavations shall be removed from site and disposed of.
- Dismantle approx. 13m of wall and retain the recovered bricks.
- Dismantle the 4 buttresses and retain the bricks.
- Rebuild the wall section using the recovered bricks and with lime mortar.
- Rebuild 4 new buttresses, in approximately the same position as the existing buttresses, and with lime mortar.
- Backfill the Churchyard ground by hand to make good the excavated soil behind the wall.

The Contractor shall note that the excavation work will be supervised by an archaeologist employed by St Michael's as there could be burials/bones close to the wall which will be disturbed by the works.

Quote Requirements

Please supply Quote for the work package referenced as SMP/12/002/WP2 (Work Package 2)

The Quote shall include:

- Description of work from the contractor
- Detailed information on the mortar mix and lime type to be used
- What bricks are to be used to make up any additional need

The Quote shall also include for appropriate Social Distancing measures and appropriate welfare facilities for compliance with the Covid-19 regulations in place at the time of the Contract

Project Mobilisation

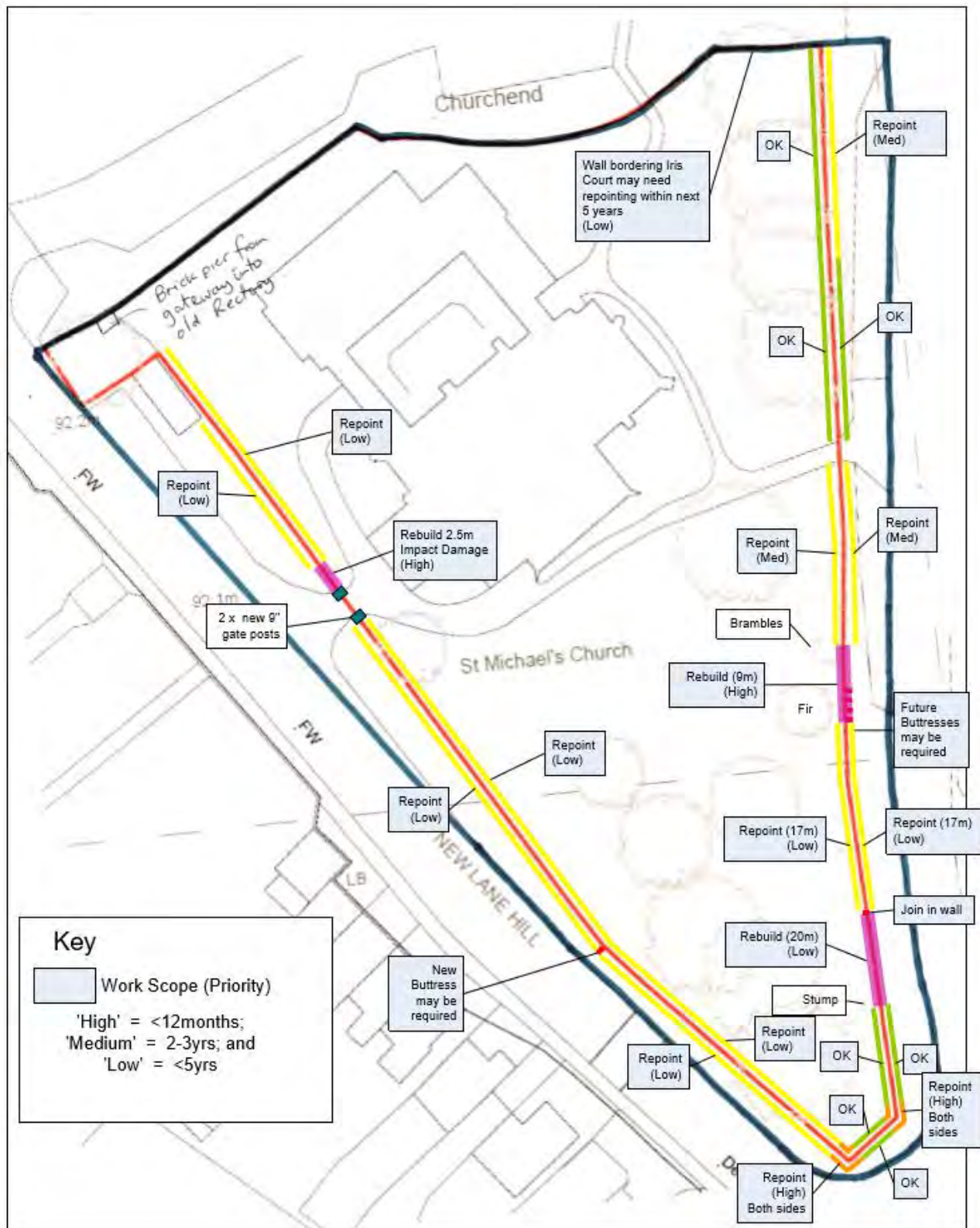
Prior to the work commencing, a site meeting or other discussion is required to review the work requirements and proposed solution.

David Bardwell
For St Michael's Fabric Committee
14/04/2021

Revision History:

0.1	15/07/20	First Draft
0.2	16/07/2020	Photographs added and comments from JGS
0.3	19/07/2020	Additional photograph included, Statement added about disposal of excess soil and stones/rubble. Gate post drawing added.
1.0	01/09/2020	Redrafted to split original Work Packages to separate Specifications carried out under SMP/12/002/WP1 and SMP/12/002/WP2 for Church Approval purposes.
1.1	23/10/2020	Corrected text in Purpose/Objective section.
1.2	14/04/2021	Updated to reference measured section now determined to be 13m

Appendix A – Boundary Plan Survey (10/07/2020)



DRB
10/07/20
Rev 0.2

C:\St_Michaels\FabricCtite\Projects_Church_Building_and_Grounds_SMP\SMP_12_002-Boundary Walls-Old and New Churchyard repairs\Wall_Survey_2020-01p2.vsd
Page: Page-1 13/07/2020 22:47

St Michael's Parish Church, New Lane Hill, Tilehurst, Reading, Berkshire RG30 4JX
Phone: 0118-942-7331, Email: office@stmichaeltilehurst.org.uk

C:\St_Michaels\FabricCtite\Projects_Church_Building_and_Grounds_SMP\SMP_12_002-Boundary Walls-Old Churchyard repairs\SMP_12_002_WP2-Rebuild13mSectionRouthLane\SMP_12_002_WP2_Rebuild13mSection_Req_Spec-1p2.docx/3 of 7 Printed: 14-Apr-21 6:48 PM (578/3144)

Appendix B – Pictures of Wall section in Routh Lane



St Michael's Parish Church, New Lane Hill, Tilehurst, Reading, Berkshire RG30 4JX
Phone: 0118-942-7331, Email: office@stmichaeltilehurst.org.uk



St Michael's Parish Church, New Lane Hill, Tilehurst, Reading, Berkshire RG30 4JX
 Phone: 0118-942-7331, Email: office@stmichaeltilehurst.org.uk



St Michael's Parish Church, New Lane Hill, Tilehurst, Reading, Berkshire RG30 4JX
Phone: 0118-942-7331, Email: office@stmichaeltilehurst.org.uk

Appendix C – 13m Measured Section Wall Rebuild



~~~~~ end ~~~~~

## OA STANDARD FIELDWORK METHODOLOGY APPENDICES

The following methods and terms will apply, where appropriate, to all OA fieldwork unless varied by the accompanying detailed Written Scheme of Investigation.

Copies of all OA internal standards and guidelines referred to below are available on request.

### APPENDIX A GENERAL EXCAVATION AND RECORDING METHODOLOGY

#### A.1 Standard methodology – summary

##### *Mechanical excavation*

- A.1.1 An appropriate mechanical excavator will be used for machine excavation. This will normally be a JCB or 360° tracked excavator with a 1.5 m to 2 m wide toothless ditching bucket. For work with restricted access or working room a mini excavator may be used.
- A.1.2 All mechanical excavation will be undertaken under direct archaeological supervision.
- A.1.3 All undifferentiated topsoil or overburden of recent origin will be removed down to the first significant archaeological horizon, in successive, level spits.
- A.1.4 Following mechanical excavation, all areas that require examination or recording will be cleaned using appropriate hand tools.
- A.1.5 Spoil heaps will be monitored in order to recover artefacts to assist in the analysis of the spatial distribution of artefacts. Modern artefacts will be noted but not retained.
- A.1.6 After recording, evaluation trenches and test pits will usually be backfilled with excavated material in reverse order of excavation, and compacted as far as is practicable with the mechanical excavator. Area excavations will not normally be backfilled.

##### *Hand excavation*

- A.1.7 All investigation of archaeological levels will usually be by hand, with cleaning, examination and recording both in plan and section.
- A.1.8 Within significant archaeological levels the minimum number and proportion of features required to meet the aims of the excavation will be hand excavated. Pits and postholes will usually be subject to a 50% sample by volume. Linear features will be sectioned as appropriate. More complex features such as those associated with funerary activity will usually be subject to 100% hand excavation.
- A.1.9 In the case of evaluations, it is not necessarily the intention that all trial trenches will be fully excavated to natural stratigraphy, but the depth of archaeological deposits across the site will be assessed. The stratigraphy of a representative sample of the evaluation trenches will be recorded even where no archaeological deposits have been identified. Any excavation, both by machine and by hand, will be undertaken with a view to avoiding damage to any archaeological features or deposits, which appear to be worthy of preservation in situ.

## **Recording**

- A.1.10 Written descriptions will be recorded on proforma sheets comprising factual data and interpretative elements.
- A.1.11 Where stratified deposits are encountered a Harris matrix will be compiled during the course of the excavation.
- A.1.12 Plans will normally be drawn at 1:100, but on urban or deeply stratified sites a scale of 1:50 or 1:20 will be used. Detailed plans will be at an appropriate scale. Burials will be drawn at scale 1:10 or recorded using geo-referenced digital photography.
- A.1.13 The site grid will be accurately tied into the National Grid and located on the 1:2500 or 1:1250 map of the area.
- A.1.14 A register of plans will be kept.
- A.1.15 Long sections of showing layers will be drawn at 1:50. Sections of features or short lengths of trenches will be drawn at 1:20.
- A.1.16 A register of sections will be kept.
- A.1.17 Generally, all sections will be tied in to Ordnance Datum.
- A.1.18 A full photographic record, illustrating in both detail and general context the principal features and finds discovered will be maintained. The photographic record will also include working shots to illustrate more generally the nature of the archaeological work.
- A.1.19 Photographs will be recorded on OA Photographic Record Sheets.

## **A.2 Relevant industry standards and guidelines**

- A.2.1 The Chartered Institute for Archaeologists (CIfA) Standard and Guidance notes relevant to fieldwork are:
- Standard and guidance for archaeological field evaluation, 2014 (updated 2020)
  - Standard and guidance for archaeological excavation, 2014 (updated 2020)
  - Standard and guidance for an archaeological watching brief, 2014 (update 2020)
- A.2.2 These will be adhered to at all times.

## **A.3 Relevant OA manual and other supporting documentation**

- A.3.1 All fieldwork will be undertaken in accordance with the requirements of the OA Field Manual (ed. D Wilkinson 1992), and the revised OA fieldwork manual (publication forthcoming).
- A.3.2 Further guidance is provided to all excavators in the form of the OA 'Fieldwork Crib Sheets - a companion guide to the Fieldwork Manual'. These have been issued ahead of formal publication of the revised Fieldwork Manual.

## APPENDIX B GEOMATICS AND SURVEY

### B.1 Standard methodology - summary

- B.1.1 The aim of OA methodology is to provide comprehensive survey cover of all investigation areas. Additionally, it is designed to provide coverage for any areas, beyond the original scope of the project, which arise as a result of further work. It provides digital plans of all required elements of the project and locates them within an overall grid.
- B.1.2 It also maintains all necessary survey data and ensures that the relevant information is copied into the primary record, in order to ensure the integrity of the project archive. Furthermore, it ensures that all core data is securely stored and backed up. It establishes accurate project reference systems utilising a series of control stations and permanent base lines.
- B.1.3 The survey will be conducted using a combination of Total Station Theodolite (TST) survey utilising Reflectorless Electronic Distance Measurement (REDM) where appropriate, hand-measured elements and GPS (Global Positioning System), or photogrammetry.
- B.1.4 Before the main work commences, a network of control stations will be laid out encompassing the area. Control stations will be tied in to known points or existing features using rigorous metric observation. The control network will be set in using a TST to complete a traverse or using techniques as appropriate to ensure sufficient accuracy. A GPS, or other appropriate method, will be used to orientate the control network to National Grid or other recognised coordinate system.
- B.1.5 All control stations will be checked by closed traverse and/or GPS, as appropriate. The accuracy of these control stations will be accessed on a regular basis and re-established accordingly. All stations will be recorded on Survey Control Station sheets.
- B.1.6 Each control station will be marked with a PGM (Permanent Ground Marker). Witness diagrams will include the full 3-D co-ordinates generated, a sketch diagram and measurements to at least three fixed details, written description of the mark and a photograph of the control point in its environs.
- B.1.7 Prior to entry into the field all equipment will be checked, and all pre-survey information will be logged onto the field computer and uploaded onto survey equipment as appropriate. The software in the field computer will be verified and all cabling between the GPS and/or TST and computer will be checked. Prior to conducting the survey, the site will be reconnoitred for locations for a viable control network and check the line of sight and any possible hindrance to survey. Daily record sheets will be kept to record daily tasks and conditions.
- B.1.8 All spatial data will be periodically downloaded onto a field computer, and backed up onto CD, or DVD. It will be cleaned, validated and inspected.
- B.1.9 All survey data will be documented on daily survey record sheets. Information entered on these sheets includes key set up information (Instrument height etc.) as well as daily variables and errors/comments. All survey data will be digitally recorded in a raw

format and translated during the download process this shall allow for any errors to be cross referenced with the daily survey record and corrected accordingly.

- B.1.10 A weekly summary of survey work will be produced to access development and highlight problems. This information also will be recorded on the weekly survey journal. Technical support for the survey equipment and download software shall be available at all times. In those instances, where sites are remotely operated, all digital data will be backed up regularly and a copy returned to Oxford on a weekly basis.
- B.1.11 A site plan will initially be created by a rapid survey of relevant archaeological features by mapping their extent using a combination of TST and GPS. This will form the basis for deciding excavation strategy and will be updated as the excavation clarifies the extent of, and relationships between, archaeological features.
- B.1.12 Excavated archaeological interventions and areas of complex stratigraphy will be hand drawn. At least two Drawing Points (DPs) will be set in as a baseline and measurements taken off this by tape and offset. The hand drawn plans will be referenced to the digitally captured pre-site plan by measuring in the DPs with a TST or GPS. These hand drawn elements will then be scanned in, geo-referenced using the DPs as reference points and digitised following OA's digitising protocols. For further details on hand planning procedure please refer to the fieldwork guidelines.
- B.1.13 Where appropriate photogrammetry or rectified photography may be used to record standing structures or burials. This will be carried out in line with Standard OA procedures for photogrammetry or rectified photography.
- B.1.14 Survey data recorded in the field will be downloaded using appropriate downloading software, and saved as an AutoCAD Map DWG file, or an ESRI Shapefile. These files will be regularly updated and backed up with originals being stored on an OA server in Oxford.
- B.1.15 All drawings will be composed of closed polygons, polylines or points in accordance with the requirements of GIS construction and OA Geomatics protocols. Once created, additional GIS/CAD work will normally be carried out at the local OA central office or at on-site remote locations when appropriate. Support for all GIS/CAD work will be available from OA's Oxford Office during normal office hours. The aim of the GIS/CAD work is to produce workable draft plans, which can be produced as stand-alone products, or can be readily converted to GIS format. Any hand-drawn plans will be scanned and digitised on site in the first instance. Subsequent plans will be added to the main drawing as it develops.
- B.1.16 All plan scans will be numbered according to their plan site number. Digital plans will be given a standard new plan number taken out from the site plan index.
- B.1.17 All digital data will be backed up incrementally on CD or DVD. On each Friday the entire data directory will be backed up and returned to Oxford where it will be copied onto the OA projects server. Each CAD drawing will contain an information layout which will include all the relevant details appertaining to that drawing. Information (metadata) on all other digital files will be created and stored as appropriate. At the end of the survey all raw measurements will be made available as hard copy for archiving purposes.

## **B.2 Relevant industry standards and guidelines**

- B.2.1 Historic England, 2017 Understanding the Archaeology of Landscapes A Guide to Good Recording Practice
- B.2.2 Historic England, 2015 Metric Survey Specifications for Cultural Heritage (3rd edn)
- B.2.3 Historic England, 2016 Understanding Historic Buildings: A Guide to Good Recording Practice
- B.2.4 Historic England, 2017 Photogrammetric Applications for Cultural Heritage: Guidance for Good Practice

## **B.3 Relevant OA manual and other supporting documentation**

- B.3.1 OA South Metric Survey, Data Capture and Download Procedures
- B.3.2 OA South Digitising Protocols
- B.3.3 OA South GIS Protocols
- B.3.4 These will be superseded by the OA South Geomatics Manual (in progress).

## **APPENDIX C ENVIRONMENTAL EVIDENCE**

### **C.1 Standard methodology – summary**

- C.1.1** Different environmental and geoarchaeological sampling strategies may be employed according to established research targets and the perceived importance of the strata under investigation. Where possible an environmental specialist(s) will visit the site to advise on sampling strategies. Sampling methods will follow guidelines produced by Historic England and Oxford Archaeology. A register of samples will be kept. Specialists will be consulted where non-standard sampling is required (e.g. TL, OSL or archaeomagnetic dating) and if appropriate will be invited to visit the site and take the samples.
- C.1.2** Geoarchaeological sampling methods are site specific, and methodologies will be designed in consultation with the geoarchaeological manager on a site by site basis.
- C.1.3** Bulk soil samples, where possible of 40 litres or 100% of a deposit if less is available, will be taken from potentially datable features and layers for flotation for charred plant remains and for the recovery of small bones and artefacts. Larger soil samples (up to 100L) may be taken for the complete recovery of animal bones, marine shell and small artefacts from appropriate contexts. Smaller bulk samples (general biological samples) of 10-20 litres will be taken from any waterlogged deposits present for the recovery of macroscopic plant remains and insects. Series of incremental 2L samples may be taken through buried soils and deep feature fills for the recovery of snails and/or waterlogged plant remains, depending on the nature of the stratigraphy and of the soils and sediments. Columns will be taken from buried soils, peats and waterlogged feature fills for pollen and/or phytoliths, diatoms, ostracods and foraminifera if appropriate. Soil samples will be taken for soil investigations (particle size, organic matter, bulk chemistry, soil micromorphology etc.) and possibly for metallurgical analysis in consultation with the appropriate specialists.
- C.1.4** Bulk samples from dry deposits will be processed by standard water flotation using a modified Siraf-style machine and meshes of 0.25mm (flot) and 0.5 or 1mm depending on sediment type and like modes of preservation (residue). Heavy residues will be wet sieved, air dried and sorted. Samples taken exclusively for the recovery of bones, marine shell or artefacts will be wet sieved to 2mm. Waterlogged samples (1L sub-sample) and snail samples (2L) will be processed by hand flotation with flots and residues collected to 0.25mm (waterlogged plants) and 0.5mm (snails) respectively; these flots and residues will be sorted by the specialist. Samples specifically taken for insects, pollen, other microflora and microfauna, metallurgy and soil analysis will be submitted as whole earth to the appropriate specialists or processed following their instructions.

### **C.2 Relevant industry standards and guidelines**

- C.2.1** Historic England, 2010 Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood.
- C.2.2** Historic England, 2011 Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post excavation, (2nd ed)

- C.2.3 Historic England, 2004 Dendrochronology: Guidelines on Producing and Interpreting Dendrochronological Dates (revision due 2020).
- C.2.4 University of Bradford, 2019 Archaeomagnetism: Magnetic Moments in the Past <https://www.brad.ac.uk/archaeomagnetism/>
- C.2.5 Historic England, 2008 Luminescence Dating. Guidelines on Using Luminescence Dating in Archaeology (revision due 2020).
- C.2.6 Historic England, 2008 Guidelines for the Curation of Waterlogged Macroscopic Plant and Invertebrate Remains (currently being revised).
- C.2.7 Historic England, 2015 Archaeometallurgy. Guidelines for Best Practice.
- C.2.8 Historic England, 2015 Geoarchaeology. Using Earth Sciences to Understand the Archaeological Record.
- C.2.9 Historic England, 2017 Organic Residue Analysis and Archaeology.
- C.2.10 Baker, P and Worley, F, 2019 Animal Bones and Archaeology: Recovery to Archive. Historic England

### **C.3 Relevant OA manual and other supporting documentation**

- C.3.1 Oxford Archaeology 2017. Environmental Sampling Guidelines, 4th ed.

## APPENDIX D ARTEFACTUAL EVIDENCE

### D.1 Standard methodology - summary

- D.1.1 Before a site begins arrangements concerning the finds will be discussed with the Finds Team Leader. Information will be provided by the project manager about the nature of the site, the expected size and make-up of the finds assemblage and any site specific finds retrieval strategies. On-site requirements will be discussed and a conservator appointed who can be called on to make site visits if required. Special requirements regarding particular categories of material will be raised at this early stage for instance the likelihood of recovering assemblages of waterlogged material, large timbers, quantities of structural stone or ceramic building material. Specialists may be required to visit sites to discuss retrieval strategies.
- D.1.2 The project manager will supply the Finds Team Leader with contact details of the landowner of the site so that consent to deposit any finds resulting from the investigation can be sought.
- D.1.3 The on-site retrieval, lifting and short term packaging of bulk and small finds will follow the detailed guidelines set out in the OA Finds Manual (sections 2 and 3), First Aid for Finds and the UKIC conservation guidelines No.2.
- D.1.4 All finds recovered from site will be transported to an OA regional office for processing; local sites will return finds at the end of each day, away based sites at the end of each week. Special arrangements can be discussed for certain sites with the Team Leader before the start of a project. Larger long running sites may in some instances set up on-site processing units to deal with the material from a particular site.
- D.1.5 All finds qualifying as Treasure will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act (1996), and the Treasure (Designation) Order 2002. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft.
- D.1.6 Each box of finds will be accompanied by a finds context checklist itemising the finds within each box. The number of bags of finds from each context and individual small find from each context will be recorded. A member of the processing team will check the list when it arrives in the department. There are separate forms for finds recovered from fieldwalking.
- D.1.7 The processing programme is reviewed on a weekly basis and priorities are worked out after discussions with the Fieldwork Team Leader and the Post-excavation Team Leader. Project managers will keep the Finds Team Leader informed of any pressing deadlines that they are aware of. All finds from evaluations are dealt with as a matter of priority.
- D.1.8 All bulk finds are washed (where appropriate), marked, bagged and boxed by the processing team according to the guidelines set out in section 4 and 5 of the OA Finds Manual, First-aid for finds and the UKIC guidelines No.2. They must also take into account the requirements of the receiving museum. Primary data recording count and weight of fragments by material from each context is recorded on the site database.

- D.1.9 Unstable and sensitive objects are recorded onto the database and then packaged and stored in controlled environments according to their individual requirements. The advice of a conservator will be sought for sensitive objects in need of urgent conservation. All metalwork will be x-rayed prior to assessment (and to meet the requirements of most receiving museums).
- D.1.10 Finds recovered from the environmental sample processing will be incorporated into the main assemblage and added to the database.
- D.1.11 On completion of the processing and data entry a finds file for each archaeological investigation will be produced, a summary of which is available for the project manager. The assemblage is allocated an OA number for storage purposes. Bulk finds are stored on a roller racking system, metals in a secure controlled storage and organic finds are refrigerated where possible.
- D.1.12 The movement of finds in and out of the storage areas is strictly monitored and recorded. Carbon copy transit forms exist to record this information. Finds will not be removed from storage without the prior knowledge of the Finds Team Leader.
- D.1.13 Finds information summarised in the finds compendium is used to assess the finds requirements for the post excavation stages of the project. The Team Leader holds a list of all specialists used by OA (see below) both internal and external.
- D.1.14 On completion of the post excavation stage of the project the team prepares the finds assemblage for deposition with the receiving museum. Discussions will be held with the museum, the excavator and the Finds Team Leader to finalise any selection, retention or discard policy. Most museums issue strict guidelines for the preparation of archives for deposition with their individual labelling, packaging and recording requirements.

## **D.2 Relevant industry standards and guidelines**

- D.2.1 ClfA, 2014 (updated 2020) Standard and guidance for the collection, documentation, conservation and research of archaeological materials
- D.2.2 Society of Museum Archaeologists, 1993 Selection, retention and dispersal of Archaeological Collections. Download available via <http://www.socmusarch.org.uk/publica.htm>)
- D.2.3 UKIC, 1983 Packaging and Storage of Freshly-Excavated Artefacts from Archaeological Sites. Conservation Guidelines No.2. Archaeology Section, United Kingdom Institute for Conservation.
- D.2.4 UKIC, 1988 Excavated Artefacts and Conservation: UK sites Revised Edition. Conservation Guidelines No.1. Archaeology Section, United Kingdom Institute for Conservation.
- D.2.5 Watkinson, D E & Neal, V, 1998 First Aid for Finds (3rd edition). RESCUE & UKIC

## **D.3 Relevant OA manual and other supporting documentation**

- D.3.1 Allen, L, and Cropper, C (internal publication only) Oxford Archaeology Finds Manual.

## APPENDIX E HUMAN REMAINS

### E.1 Standard methodology - summary

- E.1.1 Human remains will not be excavated without a relevant licence/faculty and, where applicable (for example, a post medieval cemetery), a risk assessment from the local environmental officer.
- E.1.2 All human remains will be treated with due care and regard to the sensitivities involved, and will be screened from the public throughout the course of the works.
- E.1.3 Excavation will be undertaken in accordance with ClfA (Roberts and McKinley 1993), Historic England (2018), the Advisory Panel on the Archaeology of Burials in England (APABE, 2015, 2017) and British Association of Biological Anthropology and Osteoarchaeology Code of Practice (2019) and Code of Ethics (2019). For crypts and post-medieval burials, the recommendations set out by the ClfA (Cox 2001) and by the Association of Diocesan and Cathedral Archaeologists and APABE (2010) are also relevant.
- E.1.4 In accordance with recommendations set out in the Historic England and Church of England (2005) and updated by the Advisory Panel on the Archaeology of Burials in England (2017), skeletons will not be excavated beyond the limits of the trench, unless they are deemed osteologically or archaeologically important.
- E.1.5 Where any soft tissue survives and/or materials (for example, inner coffins, mattresses and other paddings) soaked in body liquor, no excavation or handling of the remains will take place until an appropriate risk assessment has been undertaken. Relevant protocols (i.e. Cox 2001) for their excavation, recording and removal will be adhered to.
- E.1.6 OA does not excavate or remove modern burials (those less than 100 years old) and does not remove or open sealed lead coffins. Appropriate PPE (e.g. chemical suit, latex gloves) will be worn by all staff when working with lead coffins.
- E.1.7 Graves and their contents will be hand excavated in plan. Each component (for example, skeleton, grave cut, coffin (or remains of), grave fill) will be assigned a unique context number from a running sequence. A group number will also be assigned to all of these, and small finds numbers to features such as coffin nails, hobnails and other grave goods (as appropriate).
- E.1.8 Soil samples will be normally taken during the excavation of inhumations, usually from the region of the skull, chest, right hand, left hand, abdomen and pelvis, right foot and left foot. Infants (circa. less than 5 years) will normally be recovered as bulk samples. Soil samples will also be taken from graves that appear to contain no human bone.
- E.1.9 Burials (including the skeleton, cremation, coffin fittings, coffin, urn, grave goods / other) will be recorded by photographic and written record using specialised pro forma context sheets, although these records may only include schematic representations of the location and position of the skeletons, depending on the nature and circumstances of the burial.

- E.1.10 Where digital imaging is used it will be done in accordance with the British Association of Biological Anthropology and Osteoarchaeology Recommendations on the Ethical Issues Surrounding 2D and 3D Digital Images of Human Remains (2019).
- E.1.11 Where necessary, hand drawn plans (usually at 1:10, sometimes 1:5) will be made, especially of contexts where required details cannot be adequately seen using photography (for example, urned cremations; undisturbed hob nails).
- E.1.12 Levels will be taken. For inhumations this will be on the skull, pelvis and feet as a minimum.
- E.1.13 Human remains that are exhumed will be bagged and labelled according to skeletal region and carefully packed into suitable containers (for example, acid free cardboard boxes) and transported to a suitable storage location. Any associated coffins and coffin fittings will be contained with the human remains wherever possible.
- E.1.14 Urned cremations will not usually be half sectioned, but excavated in spits and/or quadrants (i.e. large deposits or spreads), or recovered as a bulk sample.
- E.1.15 Wherever possible, urned cremations will be carefully bandaged, recovered whole and will be excavated in spits in the laboratory, as per the recommendations of McKinley (2004, 2017).
- E.1.16 Unless deemed osteologically or archaeologically important disarticulated bone / chanel will be collected and reserved for re-burial if immediate re-internment as close to its original position is not practicable. In some instances, a rapid scan of this material may be undertaken by a qualified osteologist, if deemed relevant.
- E.1.17 If undisturbed, pyre sites will normally be excavated in quadrants, at the very least in 0.5 m blocks of 0.5 m spits.
- E.1.18 Pyre debris dumps will be half sectioned or quadrant and will be subject to 100% sampling.
- E.1.19 Wooden and lead coffins and any associated fittings, including fixing nails will be recorded on a pro forma coffin recording sheet. All surviving coffin fittings will be recorded by reference to Reeve and Adams (1993) and the unpublished master catalogue that is being compiled by OA. Where individual types cannot be paralleled, they will be drawn and/ or photographed and assigned a style number. Biographical details obtained from legible departum plate inscriptions will be recorded and further documentary research will be made.
- E.1.20 Funerary structures, such as brick shaft graves and/or vaults will be recorded by photogrammetry or hand-drawn at a scale of 1:10 or 1:20, as appropriate. Location, dimensions and method of construction will be noted, and the structure added to the overall trench plan.
- E.1.21 Memorials, including headstones, revealed within the areas of development will be recorded irrespective of whether they are believed to be in situ.
- E.1.22 Where required, memorials will be accorded an individual context number and will also be included as part of the grave group, if the association with a burial is clear.

E.1.23 Memorials will be recorded on pro-forma context sheets, based on and following the guidelines set out by Mytum (2002), and will include details of:

- Shape
- Dimensions
- Type of stone used
- Condition, completeness and fragmentation of stones, no longer in original positions
- Iconography (an illustration may best describe these features)
- Inscription (verbatim record of inscription; font of the lettering)
- Stylistic type

## E.2 Relevant industry standards and guidelines

- E.2.1 Advisory Panel on the Archaeology of Burials in England, 2013 Science and the Dead. A guideline for the destructive sampling of archaeological human remains for scientific analysis. English Heritage Publishing.
- E.2.2 Advisory Panel on the Archaeology of Burials in England, 2017 Guidance for Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England
- E.2.3 Advisory Panel on the Archaeology of Burials in England, 2015 Large Burial Grounds. Guidance on sampling in archaeological fieldwork projects
- E.2.4 Association of Diocesan and Cathedral Archaeologists and APABE, 2010 Archaeology and Burial Vaults. A guidance note for churches. Guidance Note 2
- E.2.5 British Association of Biological Anthropology and Osteoarchaeology. 2019a Code of Practice (<http://www.babao.org.uk/index/ethics-and-standards>)
- E.2.6 British Association of Biological Anthropology and Osteoarchaeology. 2019b Code of Ethics (<http://www.babao.org.uk/index/ethics-and-standards>)
- E.2.7 British Association of Biological Anthropology and Osteoarchaeology, 2019c Recommendations on the Ethical Issues Surrounding 2D and 3D Digital Images of Human Remains (<http://www.babao.org.uk/index/ethics-and-standards>)
- E.2.8 Cox, M, 2001 Crypt archaeology. An approach. ClfA Paper No. 3
- E.2.9 English Heritage, 2002 Human Bones from Archaeological Sites. Guidelines for producing assessment documents and analytical reports
- E.2.10 Historic England, 2018 The Role of the Human Osteologist in an Archaeological Fieldwork Project. Swindon, Historic England
- E.2.11 McKinley, J, and Roberts, C, 1993 Excavation and post-excavation treatment of cremated and inhumed human remains, ClfA Technical Paper No. 13

- E.2.12 McKinley, J, 2004 Compiling a skeletal inventory: cremated human bone. In Brickley, M, and McKinley, J (eds) Guidelines to the Standards for Recording Human Remains, ClfA Technical Paper No. 7. 9-13
- E.2.13 McKinley, J, 2017 Compiling a skeletal inventory: cremated human bone. In Mitchell P, and Brickley, M (eds) Updated Guidelines to the Standards for Recording Human Remains, ClfA 14-19
- E.2.14 Mitchell P, and Brickley, M (eds) Updated Guidelines to the Standards for Recording Human Remains, ClfA 2017
- E.2.15 Mytum, H, 2000 Recording and Analysing Graveyards. CBA Handbook No. 15
- E.2.16 Reeve, J, and Adams, M, 1993 The Spitalfields Project. Volume I – The Archaeology Across the Styx. CBA Research Report No. 85
- E.2.17 The Human Tissue Act 2004

### **E.3 Relevant OA manual and other supporting documentation**

- E.3.1 Loe, L, 2008 The Treatment of Human Remains in the Care of Oxford Archaeology. Oxford Archaeology internal policy document
- E.3.2 Oxford Archaeology 2018 *Fieldwork Manual Human Remains* unpublished

## APPENDIX F REPORTING

### F.1 Standard methodology - summary

F.1.1 For Watching Briefs and Evaluations, the style and format of the report will be determined by OA, but will include as a minimum the following:

- A location plan of trenches and/or other fieldwork in relation to the proposed development.
- Plans and sections of features located at an appropriate scale.
- A section drawing showing depth of deposits including present ground level with Ordnance Datum, vertical and horizontal scale.
- A summary statement of the results.
- A table summarising the features, classes and numbers of artefacts contained within, spot dating of significant finds and an interpretation.
- A reconsideration of the methodology used, and a confidence rating for the results.
- An interpretation of the archaeological findings both within the site and within their wider landscape/townscape setting.

F.1.2 For Excavations, a Post-Excavation Assessment and Project Design will generally be prepared, as prescribed by Historic England Management of Research Projects in the Historic Environment (MoRPHE) 2015, Section 2.3. This will include a Project Description containing:

- A summary description and background of the project.
- A summary of the quantities and assessment of potential for analysis of the information recovered for each category of site, finds, dating and environmental data. Detailed assessment reports will be contained within appendices.
- An explicit statement of the scope of the project design and how the project relates to any other projects or work preceding, concurrent with or following on from it.
- A statement of the research aims of the fieldwork and an illustrated summary of results to date indicating to what extent the aims were fulfilled.
- A list of the project aims as revised in the light of the results of fieldwork and the current post-excavation assessment process.

F.1.3 A section on Resources and Programming will also be produced, containing:

- A list of the personnel involved indicating their qualifications for the tasks undertaken, along with an explanation of how the project team will communicate, both internally and externally.
- A list of the methods which will be used to achieve the revised research aims.

- A list of all the tasks involved in using the stated methods to achieve the aims and produce a report and research archive in the stated format, indicating the personnel and time in days involved in each task. Allowance should be made for general project-related tasks such as monitoring, management and project meetings, editorial and revision time.
- A cascade or Gantt chart indicating tasks in the sequence and relationships required to complete the project. Due allowance will be made for leave and public holidays. Time will also be allowed for the report to be read by a named academic referee as agreed with the County Archaeological Officer, and by the County Archaeological Officer.
- A report synopsis indicating publisher and report format, broken down into chapters, section headings and subheadings, with approximate word lengths and numbers and titles of illustrations per chapter. The structure of the report synopsis should explicitly reflect the research aims of the project.

**F.1.4** The Project Design will be submitted to the County Archaeological Officer or equivalent for agreement.

**F.1.5** Under certain circumstances (e.g. with very small mitigations), and as agreed with the County Archaeological Officer or equivalent, a formal Assessment and Project Design may not be required and either the project will continue straight to full analysis, or a simple Project Proposal (MoRPHE 2015 Section 2.1) will be produced prior to full analysis. This proposal may include:

- A summary of the background to the project
- Research aims and objectives
- Methods statement outlining how the aims and objectives will be achieved
- An outline of the stages, products and tasks
- Proposed project team
- Estimated overall timetable and budget if appropriate.

**F.1.6** Once the post-excavation Project Design or Project Proposal has been accepted, the County Archaeological Officer or their appointed deputy will monitor the progress of the post-excavation project at agreed points. Any significant variation in the project design will be agreed with the County Archaeological Officer.

**F.1.7** The results of the project will be published in an appropriate archaeological journal or monograph. The appropriate level of publication will be dependent on the significance of the fieldwork results and will be agreed with the County Archaeological Officer. An OASIS (Online Access to the Index of Archaeological Investigations) form will be completed for each project as per Historic England guidelines.

## **F.2 Relevant industry standards and guidelines**

**F.2.1** Oxford Archaeology (OA) adheres to the national standards in post-excavation procedure as outlined in Historic England's Management of Research Projects in the Historic Environment (MoRPHE; HE 2015). Furthermore, all post-excavation projects

take into account the appropriate regional research frameworks as well as national research agendas such as the Framework for Historic Environment Activities & Programmes in Historic England (SHAPE; EH 2008).

## APPENDIX G LIST OF SPECIALISTS REGULARLY USED BY OA

G.1.1 Below are two tables, one containing 'in-house' OA specialists, and the other containing a list of external specialists who are regularly used by OA.

### Internal archaeological specialists used by OA

| Specialist            | Specialism                                            | Qualifications                         |
|-----------------------|-------------------------------------------------------|----------------------------------------|
| John Cotter           | Medieval and Post Medieval pottery, Clay Pipe and CBM | BA (Hons), MCIfA                       |
| Dr Alex Davies        | Prehistoric Pottery                                   | BA (Hons), MA, PhD, ACIfA              |
| Edward Biddulph       | Roman Pottery                                         | BA (Hons), MA, MCIfA                   |
| Kate Brady            | Roman Pottery                                         | BA, ACIfA                              |
| Cynthia Poole         | CBM and Fired Clay                                    | BA (Hons), MSc                         |
| Leigh Allen           | Metalwork and worked bone                             | BA (Hons), PGDip                       |
| Anni Byard            | Metalwork, coins and glass                            | MSx, MCIfA                             |
| Dr Ruth Shaffrey      | Worked stone artefacts                                | BA, PhD, MCIfA                         |
| Dr Rebecca Nicholson  | Fish and Bird Bone                                    | BA (Hons), MA, D.Phil, MCIfA, FSA Scot |
| Dr Mairead Rutherford | Pollen                                                | BSc, MSc                               |
| Ian Smith             | Animal Bone                                           | BA (Hons), MSc, PCIfA                  |
| Dr Martyn Allen       | Animal Bone                                           | BA (Hons), MA, PhD                     |
| Dr Denise Druce       | Charred plant remains, charcoal and pollen            | BA (Hons), PhD, MCIfA                  |
| Sharon Cook           | Charred plant remains                                 | BSc, MSc, ACIfA                        |
| Elizabeth Stafford    | Geoarchaeology and land snails                        | BA (Hons), MSc                         |
| Carl Champness        | Geoarchaeology                                        | BA (Hons), MSc, ACIfA                  |
| Nicola Scott          | Archaeological archive deposition                     | BA (Hons Dunelm)                       |
| Mike Donnelly         | Flint                                                 | BSc, MCIfA                             |
| Dr Louise Loe         | Human Bone                                            | BA PhD, MCIfA, BABAO                   |
| Helen Webb            | Human Bone                                            | BSc, MSc, MCIfA, BABAO                 |
| Mark Gibson           | Human Bone                                            | BA, MSc, ACIfA, BABAO                  |
| Dr Lauren McIntyre    | Human Bone                                            | BSc, MSc, PhD, MCIfA, BABAO            |
| Zoe Ui Choileain      | Human Bone                                            | Pg Dip, MA, Msc, BABAO                 |
| Natasha Dodwell       | Human Bone                                            | BA, MSc, BABAO                         |

### External archaeological specialists regularly used by OA

| Specialist                                               | Specialism                                  | Qualifications            |
|----------------------------------------------------------|---------------------------------------------|---------------------------|
| Lynne Keys                                               | Slag                                        | BA (Hons)                 |
| Quita Mould                                              | Leather                                     | BA, MA                    |
| Penelope Walton Rogers,<br>The Anglo Saxon<br>Laboratory | Identification of Medieval Textiles         | FSA, Dip.Acc              |
| Dana Goodburn-Brown                                      | Conservation                                | BSc (Hons), BA, MSc       |
| Steve Allen, York<br>Archaeological Trust                | Conservation                                | BA, MA, MAAIS             |
| Dr Richard Macphail                                      | Soils, especially Micromorphology           | BA (Hons), MSc, PhD       |
| Dana Challinor                                           | Charcoal                                    | MA, MSc                   |
| Dr Nigel Cameron                                         | Diatoms                                     | BSc, MSc, PhD             |
| Dr David Smith                                           | Insects                                     | BA (Hons), MA, PhD        |
| Professor Adrian Parker                                  | Phytoliths and pollen                       | BSc (Hons), D.Phil        |
| Dr David Starley                                         | Metalworking Slag                           | BSc (Hons), PhD           |
| Wendy Carruthers                                         | Charred and waterlogged plant<br>remains    | BA (Hons)                 |
| Dr John Whittaker                                        | Ostracods and Foraminifera                  | BA (Hons), PhD            |
| Dr John Crowther                                         | Soil Chemistry                              | MA, PhD                   |
| Dr Martin Bates                                          | Geoarchaeology                              | BSc, PhD                  |
| Dr Dan Miles                                             | Dendrochronology                            | D.Phil, FSA               |
| Dr Jean-Luc<br>Schwenninger                              | Optically Stimulated Luminescence<br>Dating | PhD                       |
| Dr David Higgins                                         | Clay Pipe                                   | BA, PhD, MCIfA            |
| Dr Hugo Anderson-<br>Wymark                              | Flint                                       | BSc, PhD, FSA Scot, MCIfA |
| Dr Damian Goodburn-<br>Brown                             | Ancient Woodwork                            | BA, PhD                   |
| Dr David Dungworth                                       | Archaeometallurgy and Glassworking          | BA (Hons), PhD            |

## APPENDIX H DOCUMENTARY ARCHIVING

### Standard methodology – summary

- H.1.1** The documentary archive constitutes all the written, drawn, photographic and digital records relating to the set-up, fieldwork and post-excavation phases of the project. This documentary archive, together with the artefactual and environmental ecofact archive collectively forms the record of the site. The report is part of the documentary archive, and the archive must provide the evidence that supports the conclusions of the report, but the archive may also include data which exceeds the limitations of research parameters set down for the report and which could be of significant value to future researchers.
- H.1.2** At the outset of the project OA Archive manager will contact the relevant local receiving museum or archive repository to notify them of the imminent start of a new fieldwork project in their collecting area. Relevant local archiving guidelines will be observed and site codes, which integrate with the receiving repository, will be agreed for labelling of archives and finds.
- H.1.3** Where there is currently no receiving museum for the project archive, although responsibility for the archive ultimately lies with the client, OA will hold the archive on their behalf for a period of up to 3 years after completion of the report, after which time (in the event that a suitable depository has not been secured) provision for further storage of the archive will be made in agreement with Oxford Archaeology, the client and the relevant planning archaeologist.
- H.1.4** During the course of the project the Archive team will assist the Project Manager in the management of the archive including the cataloguing and development technique suitable for photographic archive requirements.
- H.1.5** The hard copy site archive will be security copied by scanning to PdFA and a copy of this will be housed on the OA Archive Server. A full digital copy of the archive, including scanned hard copy and born digital data, will be deposited with and made publicly available on-line through the ADS. A further copy will be maintained on the OA server and if requested a copy on disk will also be sent to the receiving museum with the hard copy. This will act as a safeguard against the accidental loss and the long-term degeneration of paper records and photographs.
- H.1.6** Born digital data will only be printed to hard copy for the receiving museum where practical. Archive elements that need maintaining in digital form will be sent to ADS in accordance with Arches Standard and ADS guidelines. A copy will be sent to the receiving museum by CD and back-up copies will be stored on the OA digital network. In most cases a digital copy of the report will be included in the OASIS project library hosted by ADS.
- H.1.7** Prior to deposition the Archive team will contact the museum regarding the size and content of the archive and discuss any retention and dispersal policies which may be applicable in line with local and SMA Guidelines ' Selection, Retention & Dispersal of Archaeological Collections' 1993.

- H.1.8 The site archive will then be deposited with the relevant receiving museum or repository at the earliest opportunity unless further archaeological work on the site is expected. The documentary archive will include correspondence detailing landowner consent to deposit the artefacts and any copyright licences in accordance with the receiving museum guidelines. Deposition charges will be required from the client as part of the project costs, but the level of the fee is set by the receiving body and may be subject to change during the lifespan of the project. Changes to archiving charges beyond OA's control will be passed across to the client.
- H.1.9 Oxford Archaeology will retain full copyright of any commissioned reports, tender documents, or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it will provide the receiving repository or museum for the archive with a full licence for use to the client in all matters directly relating to the project as described in the Written Scheme of Investigation, and in line with the relevant receiving body guidelines.
- H.1.10 OA will advise the receiving repository or museum for the archive of 3<sup>rd</sup> party materials supplied in the course of projects which are not OA's copyright.
- H.1.11 OA undertakes to respect all requirements for confidentiality about the client's proposals provided that these are clearly stated. It is expected that such conditions shall not unreasonably impede the satisfactory performance of the services required. Archaeological findings and conclusions can be kept confidential for a limited period but will be made publicly available in line with the above procedure either after a specified time period agreed with the client at the outset of the project, or where no such period is agreed, after a reasonable period of time. It is expected that clients respect OA's general ethical obligations not to suppress significant archaeological data for an unreasonable period.

## **H.2 Relevant industry standards and guidelines**

- H.2.1 At the end of the project the site archive will be ordered, catalogued, labelled and conserved and stored according to the following national guidelines:
- H.2.2 EAC, 2014 A Standard and Guide to Best Practice for Archaeological Archiving in Europe (EAC Guidelines 1)
- H.2.3 ClfA, 2014 (Updated 2020) Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives
- H.2.4 Brown, D, 2011 Archaeological Archives A Guide to Best Practice in Creation, Compilation, Transfer and Curation. AAF
- H.2.5 UKIC, 1990 Guidelines for the preparation of excavation archives for long-term storage
- H.2.6 SMA, 2020 Standards and Guidance in the Care of Archaeological Collections
- H.2.7 Local museum guidelines such as Museum of London Guidelines: (<http://www.museumoflondonarchaeology.org.uk/English/ArchiveResearch/DeposRe> source) will be adopted where appropriate to the archive collecting area.
- H.2.8 The site archive will be prepared to at least the minimum acceptable standard defined in Management of Archaeological Projects 2, Historic England 1991.

## **H.3 Relevant OA manual and other supporting documentation**

### **H.3.1 The OA Archives Policy.**

## **APPENDIX I                    HEALTH AND SAFETY**

### **I.1        Standard Methodology - summary**

- I.1.1**    All work will be undertaken in accordance with the current OA Health and Safety Policy, the OA Site Safety Procedures Manual, a site-specific Risk Assessment and, if required, Safety Plan or Method Statement. Copies of the site-specific documents will be submitted to the client or their representative for approvals prior to mobilisation, and all relevant H and S documentation will be available on site at all times. The Health and Safety documentation will be read in conjunction with the project WSI.
- I.1.2**    Where a project falls under the Construction (Design and Management) Regulations (2015), all work will be carried out in accordance with the Principal Contractor's Construction Phase Plan (CPP).

### **I.2        Relevant industry standards and guidelines**

- I.2.1**    All work will be carried out according to the requirements of all relevant legislation and guidance, including, but not exclusively:
- I.2.2**    The Health and Safety at Work Act (1974).
- I.2.3**    Management of Health and Safety at Work Regulations (1999).
- I.2.4**    Manual Handling Operations Regulations 1992 (as amended).
- I.2.5**    The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (2013).
- I.2.6**    The Construction (Design and Management) Regulations (2015).
- I.2.7**    Relevant OA manual and other supporting documentation
- I.2.8**    The OA Health and Safety Policy.
- I.2.9**    The OA Site Safety Procedures Manual.
- I.2.10**   The OA Risk Assessment templates.
- I.2.11**   The OA Method Statement template.
- I.2.12**   The OA Construction Phase Plan template.



**Head Office/Registered Office/  
OA South**

Janus House  
Osney Mead  
Oxford OX2 0ES

t: +44 (0) 1865 263 800  
f: +44 (0) 1865 793 496  
e: [info@oxfordarchaeology.com](mailto:info@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA North**

Mill 3  
Moor Lane  
Lancaster LA1 1QD

t: +44 (0) 1524 541 000  
f: +44 (0) 1524 848 606  
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA East**

15 Trafalgar Way  
Bar Hill  
Cambridgeshire  
CB23 8SQ

t: +44 (0) 1223 850500  
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>



**Director:** Gill Hey, BA PhD FSA MCIfA  
*Oxford Archaeology Ltd is a  
Private Limited Company, N<sup>o</sup>: 1618597  
and a Registered Charity, N<sup>o</sup>: 285627*