

THE CENTRAL WINCHESTER REGENERATION SITE AND ARCHAEOLOGY



CWR Archaeology Advisory Panel

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Contents

Non-Technical Summary	2
1. Introduction	4
2. Planning Policy and Guidance relating to Archaeology	4
3. Preservation conditions, deposit modelling and hydrology	9
4. Archaeological Strategy	14
5. Evaluation and Survey Methodologies	16
6. Construction / Engineering Strategies	19
7. Community Engagement and Public Realm Enhancement	20
8. References	23
9. Glossary.....	24
10. Appendix 1 – Summary of Archaeological Desk-Based Assessment.....	26
11. Appendix 2 - Figures.....	30

CWR Archaeology Advisory Panel

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Cover image: view north from Winchester Guildhall in 2008 over the Central Winchester Site showing Broadway and the Bus Station (foreground) © Hampshire Cultural Trust / WCC (PWCM36531E)

Non-Technical Summary

The CWR site contains a rich buried archaeological resource. Analysis of previous archaeological excavations and boreholes shows that there will be a substantial depth of both alluvial material deposited in the early prehistoric period and of archaeological deposits and structural remains of the Roman and later periods. The overall thickness of archaeology will be at most about 4m, averaging 2 to 3m, but in the case of buried ditches and the filling of pits and wells could reach as much as 6m in places. Baseline information on the archaeological resource present beneath the CWR site (summarised from an archaeological desk-based assessment, Ottaway, 2017a) is contained in Appendix 1 of this document.

Legislation, National and Local planning policy as well as government and sector guidance relevant to the redevelopment of the CWR site are outlined.

Existing information on preservation conditions and the hydrology of the site and its relationship to the archaeological strata suggest that palaeoenvironmental material will be well preserved in alluvial deposits as a result of water logging. Roman and later deposits may not be below the water table, except in pits and other deep cut features. A Stage 1 hydrological assessment indicates that there is hydraulic continuity between groundwater and an existing open water channel with the underlying aquifer. Information from previous excavations suggests that water levels in the past are likely to have been lower. Data from previous investigations and boreholes has been utilised to present a rough grain deposit model for the CWR site.

An alkaline burial environment will ensure good preservation of many materials in archaeological deposits, but organic artefacts and palaeoenvironmental material will only be well preserved in deep pits and other features. Archaeological deposits within the CWR site are likely to have been disturbed to some degree by utility trenching (albeit likely largely confined to the streets) and from piling for modern buildings.

Information requirements in respect of future development proposals (geoarchaeological boreholes, an enhanced deposit model and a more detailed hydrological assessment, together with non-intrusive and intrusive archaeological evaluation), are set out. These will provide important information on the character, date, quality, extent and survival of geoarchaeological and archaeological deposits and the preservation environment within the CWR site and aid understanding of the impact of development proposals on these.

National and local government policy with regard to archaeology is expected to be followed by developers and outline mitigation strategies (informed by further archaeological site investigations and assessments) should be submitted as part of future planning submissions. Key elements of mitigation strategies will

include details of groundworks, method statements for excavation where required, historic building recording, a research strategy and proposals for publication archive and outreach, together with public realm enhancement.

Approaches to the development of archaeological mitigation strategies should be flexible but it is anticipated that preservation in situ will form a key mitigation approach. This is related to the need to preserve important archaeological remains for future generations and also to the high financial costs associated with large scale excavation(s). Winchester City Council has a duty to satisfy itself that any archaeological excavation undertaken within the CWR site, attendant post-excavation analysis and the public dissemination of the results is adequately funded; otherwise a preservation strategy should be adopted.

Where preservation in situ is proposed, developers should incorporate innovative design of below ground structures, foundations, drainage and services in development proposals, to minimise impacts (whether direct or indirect) to important archaeological remains.

Certain aspects of further archaeological assessment and site investigations required within the CWR site and in the design of below ground impacts (for example in the provision of services to individual parts of the CWR site), may require a degree of overall, site-wide planning.

Developers will be expected to engage appropriately qualified and experienced archaeological consultants and specialists, with previous expertise in dealing with deeply stratified urban sites. Such consultants and specialists will be expected to work closely with appropriately qualified and experienced specialists in other areas, such as hydrology and ground engineering, the local planning authority's archaeological advisor and Historic England specialists (such as the Regional Science Advisor).

The redevelopment of the CWR site provides key opportunities for the enhancement of the historic environment of this part of Winchester as part of a public realm strategy; which will include archaeological interpretation and the involvement of the local community and the wider public. Key partners are likely to include the Hampshire Cultural Trust and the University of Winchester. Developers will be expected to include proposals for community engagement as part of archaeological mitigation strategies.

1. Introduction

- 1.1. This document forms a supporting technical paper to the Central Winchester SPD and sets out the issues involved in management of the archaeological resource at the Central Winchester Regeneration site. Its purpose is to highlight those issues to be considered when preparing detailed proposals for the site.
- 1.2. The Central Winchester Regeneration site (hereafter 'CWR') lies in the eastern part of the walled city of Winchester on the north side of High Street and Broadway (centre at approximately 44851294).
- 1.3. The archaeology and history of the CWR site set in its city-wide context has been reviewed in detail in a Desk-based Assessment (DBA) of 2017 by Patrick Ottaway <http://www.winchester.gov.uk/projects/central-winchester-regeneration-technical-reports> which should be read alongside this document. In brief, the DBA shows that the site will contain a rich buried archaeological resource. The earliest deposits probably date from the Mesolithic period; they will be followed by an unbroken sequence of deposits and structural remains from the mid-first century (Roman period) to the nineteenth century. The overall depth of archaeology below modern level will be at most about 4m, averaging 2 to 3m, but in the case of buried ditches and the filling of pits and wells could reach as much as 6m in places.
- 1.4. Summary information from the DBA is contained in Appendix 1 of this document.

2. Planning Policy and Guidance relating to Archaeology

- 2.1. Archaeology is a material consideration in the planning process according to the provisions of government legislation and policy statements. The main components of the national and local planning and legislative framework governing the treatment of the historic environment within the planning process is summarised below.
- 2.2. Developers will be expected to follow national and local government policy in respect of archaeological remains within the CWR site, which contains significant, but non-designated sites and remains.

Legislation

Ancient Monuments and Archaeological Areas Act, 1979

- 2.3. The Ancient Monuments and Archaeological Areas Act of 1979 makes ‘... provision for the investigation, preservation and recording of matters of archaeological and historical interest, and for the regulation or operations or activities affecting such matters...’
- 2.4. Part 1 refers largely to matters concerning the compilation of a Schedule of Ancient Monuments and Part 2 to Areas of Archaeological Importance. There is only one Scheduled Monument in the immediate vicinity of and visually connected to the CWR site: the City Bridge, High Street / Bridge Street, Winchester (<https://www.historicengland.org.uk/listing/the-list/list-entry/1021112>). Winchester is not designated as an Area of Archaeological Importance.

Planning (Listed Buildings and Conservation Areas) Act, 1990

- 2.5. The Planning (Listed Buildings and Conservation Areas Act) of 1990 deals with specific protocols for buildings and areas of special architectural or historic interest. It requires the Secretary of State for the Environment to compile a list of buildings of architectural or historic interest.
- 2.6. There are no listed buildings within the CWR site, although a number of Grade II listed buildings lie on the southern side of the site, fronting onto The Broadway. Other Grade II listed buildings lie to the east of the site and on the south side of the Broadway, where public realm improvement works are proposed (see Appendix 2 Fig. 1). Beyond the site lie St Johns Rooms and Chapel (Grade I) and Abbey House (Grade II*). The site lies in the Winchester Conservation Area within which it is part of the Walled Town Character Area.

National Planning Policy Framework

- 2.7. Government policy on the historic environment (which encompasses historic landscape features, archaeological sites and other heritage assets) is set out in the National Planning Policy Framework ([NPPF](#); published by the Department of Communities and Local Government, March 2012).

2.8. Any scheme that seeks to redevelop the CWR site should have regard to the NPPF. Its central theme is the 'presumption in favour of sustainable development'. Paragraphs 126 to 141 set out the core planning principles which underpin both plan-making and decision-taking. One of the key dimensions of sustainability is protecting and enhancing our historic environment and conserving heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life in this and future generations.

2.9. The NPPF places certain responsibilities on local planning authorities when considering planning applications. They include the following set out in Para. 128:

'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.'

In the case of the CWR site the DBA and some limited site investigations have already taken place.

2.10. The NPPF also requires local planning authorities to consider the following (Para. 135):

'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.'

- 2.11. The National Planning Practice Guidance: [Conserving and enhancing the historic environment](#) (Dept. for Communities and Local government 2014) provides additional guidance intended to accompany the NPPF. It includes a section entitled Conserving and enhancing the historic environment (ID: 18a), which expands upon NPPF Section 12.
- 2.12. Redevelopment proposals for the CWR site will require a Heritage Statement as part of an Environmental Impact Assessment.

Winchester District Local Plan

Winchester District Local Plan Part 1 Joint Core Strategy

- 2.13. *Part 1 of the Local Plan, Joint Core Strategy* (adopted in March 2013), provides strategic guidance to development. Chapter 9, Core Policies for a High Quality Environment, includes Policy CP20 - Heritage and Landscape Character.

Policy CP20 - Heritage and Landscape Character

The Local Planning Authority will continue to conserve and enhance the historic environment through the preparation of Conservation Area Appraisals and Management Plans and/or other strategies, and will support new development which recognises, protects and enhances the District's distinctive landscape and heritage assets and their settings. These may be designated or undesignated and include natural and man made assets associated with existing landscape and townscape character, conservation areas, scheduled ancient monuments, historic parks and gardens, listed buildings, historic battlefields and archaeology.

Particular emphasis should be given to conserving:

- recognised built form and designed or natural landscapes that include features and elements of natural beauty, cultural or historic importance;
- local distinctiveness, especially in terms of characteristic materials, trees, built form and layout, tranquillity, sense of place and setting.

Winchester District Local Plan Part 2 Development Management and Site Allocations

- 2.14. *Part 2 of the Local Plan, Development Management and Site Allocations* (adopted April 2017), provides local planning policies that relate to the historic environment, including Policy DM26 – Archaeology.

Policy DM26 – Archaeology

Where there is evidence that heritage assets above or below ground and their settings are known or suspected to exist, but their extent and significance is unknown, planning applications should incorporate sufficient information to define the significance and extent of such assets, as far as reasonably practicable. Where appropriate, applications should include:

- the results of desk-based assessment/field evaluation; and
- an assessment of the effect of proposals on the assets or their setting.

Planning permission will be granted where the proposal accords with other relevant policies and includes:

- i. provision to preserve the archaeological remains in situ, by sensitive layout and design (particularly foundations, drainage/services and landscaping); and
- ii. provision for the investigation and recording of any archaeological remains that cannot or are not required to be preserved including the publication of results, in accordance with a detailed Written Scheme of Investigation approved before the start of development.

- 2.15. The CWR site is also subject to Policy WIN4 – Silver Hill Mixed Use Site which requires that proposals “*include an archaeological assessment to define the extent and significance of any archaeological remains and reflect these in the proposals, as appropriate*”

Other Guidance

- 2.16. Developers will be expected to take account of relevant sector guidance; including but not restricted to:
- Davis, M J, Gdaniec, K L A et al, 2004, *Mitigation of Construction Impact on Archaeological Remains* (English Heritage)

- Historic England, 2015, *Piling and Archaeology: Guidelines and Best Practice* [link](#)
- Historic England, 2016a, *Preserving Archaeological Remains: Decision-taking for Sites under Development* [link](#)
- Historic England 2016b *Understanding Historic Buildings: A Guide to Good Recording Practice* [link](#).

2.17. All archaeological investigations should be carried out in accordance with the standards and guidance issued by the Chartered Institute for Archaeologists and relevant technical guidance published by Historic England and others.

The Council's Archaeological Advisor should be involved at an early stage during the master-planning / pre-application process.

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3. Preservation conditions, deposit modelling and hydrology

Summary of existing knowledge

Preservation conditions

3.1 The alkaline burial environment within the CWR site means that artefacts of stone, ceramic, metals, glass and bone should be well preserved, both within dry and anoxic burial conditions. Biological remains will be well preserved in alluvial deposits, tufa and deep archaeological features which have been continuously or almost continuously waterlogged. Artefacts made of organic material will survive in good condition within anoxic deposits; these are anticipated largely within waterlogged and / or compacted deposits, but potentially also where such material has been charred.

3.2 Some disturbance of archaeological deposits within the CWR site may have been caused by utility trenches, but this will have been largely confined to the streets. Elsewhere, some disturbance is expected to have taken place from piling for modern buildings and in one area, from a semi basement (multi-storey car park). The extent of disturbance by past and modern intrusions across the CWR site will require further investigation.

Hydrology

3.3 Water within the CWR site derives from an unconfined aquifer composed of porous alluvial and fluvial sediments and underlying gravels, with a ground water flow from the north-west to the south-east, towards the River Itchen. Recorded water levels and the existing open water channel indicate hydraulic continuity with the aquifer, with no evidence for perched water tables above impermeable buried deposits.

3.4 Previous excavation and boreholes have shown that buried deposits in much of the CWR area are permanently or intermittently / seasonally waterlogged at varying depths below modern levels.

3.5 The DBA contains a Tier 1 Assessment of the water environment as set out in *Preserving Archaeological Remains: Decision –taking for Sites under Development* (Historic England 2016), excepting consideration of annual rainfall vs annual evaporation data (which was not obtained at the time of the report).

3.6 Available data indicates the usual ground water table level within and in the immediate environs of the CWR site is between 33m – 35m OD, at between c. 1.60m – 3.70m below modern level. This large range may result from whether the data was obtained from excavations or borehole, to seasonality or modern drainage or to a combination of these factors. In terms of seasonality, there is little accurate data; however at The Brooks site recorded water levels indicate a 0.80m height difference in the water table between summer and winter.

3.7 The Tier 1 assessment concluded that:

- Deposits containing significant waterlogged archaeological remains are hydraulically connected to the wider ground water system.
- Pre-Roman deposits are below the water table, although the extent to which they have been in the past is a complex question.
- Data from previous archaeological investigations suggests that Roman and later deposits accumulating on the 'natural' ground surface are not below the water table; however deposits in pits and other features which penetrate the 'natural' do contain waterlogged deposits with a high level of organic preservation. This picture may however be a little different in the south-eastern part of the CWR site.
- Previous investigations at The Brooks and Lower Brook Street indicate that past water table levels are likely to have been lower than existing levels.

Geoarchaeological data and deposit modelling

3.8 Within the CWR site deposits below the modern ground level can be broadly divided into two groups.

3.9 Group 1 - Pleistocene fluvial gravels overlying natural Chalk and in turn overlain by Late Glacial to Early Holocene alluvial (and fluvial) deposits of peat, sand, silt and tufa. These deposits contain little or no cultural material; however the Late Glacial or Early Holocene sequence is of archaeological interest, representing the development of the palaeotopography and palaeoenvironment in the Itchen floodplain.

3.10 Group 2 - Conventional archaeological material of the Roman to modern periods.

3.11 Section 6 of the DBA, utilizing data deriving from previous archaeological, geotechnical and geoarchaeological boreholes within and in the vicinity of the CWR site, describes current knowledge and provides a visual representation of deposits across the CWR site. Two west - east transects provide a summary overview of this (see Appendix 2, Fig 2). These deposit models are however broad brush in scale and the data sources are of variable quality; nevertheless some broad conclusions can be made.

Group 1 deposits

3.12 The depth of fluvial gravels and alluvial deposits is very variable over the CWR site, likely due to a combination of early topographic features in the valley bottom, Roman or later intrusions and problems of data interpretation.

3.13 The presence of alluvial deposits over the Itchen valley floor is clearly variable, but they are thought to be at their greatest depth on the western side of the valley floor; the data suggesting the presence of a palaeochannel of the river on the western side of the valley (roughly on the line of Upper Brook Street).

3.14 There are probably multiple peat deposits contained within separate depressions on the floodplain floor. Collectively these peat deposits have the potential to provide important palaeoenvironmental data for the first half of the Holocene. Where carried out, dating of peat deposits from several sites suggests it formed at different times, but all in the Mesolithic period (see para. 6.16 of the DBA for further detail).

Group 2 deposits

3.15 The overall thickness of archaeological deposits within the CWR site has been derived from available datasets and in places the heights at which remains of different periods occur can be roughly estimated. However this data must be treated with caution as the presence of pits and other cut features may skew levels.

3.16 There are a greater number of data points in the western part of the CWR site and data from The Brooks site and from the excavations to the west of the site at Lower Brook Street (1962-71) in particular provide a useful guide to what might be expected in surrounding areas to the east of Middle Brook Street.

3.17 Overall, the data suggests that the greatest depth of Roman and later deposits is seen in the southern part of the central and eastern areas of the CWR site, with another area of deep deposits in the northern part of the eastern area. See paragraphs 6.21-6.25 of the DBA for more detail and Appendix 2, Fig 3).

Further information requirements

Geoarchaeological borehole survey and enhancement of existing deposit models

- 3.18 Further geoarchaeological borehole survey should be undertaken across the CWR site, as set out in para. 5.10 to 5.11 below. The extent and scope of such borehole survey will depend on the nature of specific development proposals.
- 3.19 Assessment of recovered cores (lithological, geochemical and biostratigraphic properties) together with AMS ¹⁴C dating will provide enhanced baseline detail on the chronological and palaeoenvironmental significance of deposits and current hydrological conditions within the CWR site.
- 3.20 The results of the geoarchaeological boreholes should be utilized, together with information from earlier boreholes, archaeological sections and any relevant Ground Penetrating Radar (GPR) survey data (see paragraph 6.9 below), to inform the creation of an enhanced deposit model for the CWR area. The development of a more refined deposit model cross-referenced with hydrological data (see below) will enable the identification of areas of the CWR site most likely to contain well preserved organic material and areas most sensitive to any water table changes.
- 3.21 All work should be undertaken by an appropriately qualified individual(s) formally acknowledged as such by the Council's archaeological advisor (including specialist staff responsible for conservation, palaeoenvironmental sampling and analysis).

Hydrology

- 3.22 Given the known preservation conditions and ground water levels within the site there are concerns that development proposals might potentially introduce change to the water table such that waterlogged deposits below the site may be affected.
- 3.23 In line with Historic England's 2016 guidance on Preserving Archaeological Remains: Decision-taking for Sites under Development, in particular Appendix 3 - Water Environment Assessment Techniques ([link](#)), a hydrological assessment should be incorporated into geoarchaeological borehole survey work.

- 3.24 An appropriate specialist should be appointed to develop a method statement (for approval by the City Council's archaeological advisor and Historic England Science Advisor) for understanding the site's hydrogeology, informed by the Tier 1 assessment and the Historic England guidance. The method statement should set out details of data collection (water monitoring stations) and the specialist should also be involved in the production of a WSI for geoarchaeological boreholes (e.g. the identification of core locations and potential sites for water data collection etc).
- 3.25 A conceptual model should be developed to at least the level of a Tier 3 assessment and, depending onto the nature of specific development proposals, a Tier 4 assessment may be required. Sufficient time should be allocated for data collection to quantify the conceptual model across the whole CWR site.
- 3.26 The outcome of the assessment should comprise a thorough understanding of the water environment across the site in order to assess the impacts of any proposed development on this water environment. The results should be used to inform the development of appropriate mitigation strategies as part of redevelopment of the CWR site.
- 3.27 A suitably qualified hydrologist should assess the impact of proposed foundations / sub-surface structures (e.g. piles) on water levels and hence on preservation as part of overall archaeological impact assessment.

4. Archaeological Strategy

- 4.1. As set out above, developers will be expected to follow national and local government policy in respect of archaeological remains within the CWR site, which contains significant, but non-designated remains.
- 4.2. The existing DBA provides a high quality baseline study of the archaeological potential of the site as required by Para. 128 of the NPPF. As such it is not expected that developers will be required to undertake a similar assessment, although a Heritage Statement will be required as part of an Environmental Impact Assessment.

- 4.3. In advance of determination of a planning application, development proposals across the CWR site should be preceded by further archaeological evaluation to be focused in particular on areas to be impacted by substantial groundworks (see section 5 below). Such evaluation will investigate buried heritage assets present, model their form and extent in terms of significance and enable detailed assessment of the impact of development on those assets.
- 4.4. Intrusive archaeological evaluation investigations should be proportionate with regard to specific proposals and, where significant remains are found, aim to be minimally intrusive. Archaeological evaluation should however provide sufficient information to inform a mitigation strategy and where preservation is proposed, to optimise engineering solutions (see Section 6 below).
- 4.5. The value of engagement at an early stage during the master –planning / pre-application process with the Council’s archaeological advisor is highlighted.
- 4.6. The results of these investigations and subsequent assessments should inform an outline mitigation strategy to be submitted as part of a planning application. A detailed mitigation strategy will be required following consent under the terms of a Planning Condition.
- 4.7. Key elements forming part of detailed archaeological mitigation strategies should include:
- Details of all groundworks required as part of the construction programme
 - A method statement for excavation in areas to be impacted by development
 - Recording of standing buildings in advance of alteration and / or demolition
 - A research strategy
 - Publication, archive and outreach / public realm enhancement (see Section 7)
- 4.8. A flexible approach should be adopted in the development of an archaeological mitigation strategy. However for a variety of reasons it is anticipated that the main mitigation strategy for the CWR site will comprise preservation in situ rather than by record. Such reasons include:
- The need to preserve important archaeological remains for future generations; recognising that in the future the application of new techniques may allow more to be learnt about archaeological remains than is possible today.

- The high financial costs associated with large scale excavation(s). The Council, as both landowner and planning authority has a duty to satisfy itself that any archaeological excavation, post-excavation analysis and the dissemination of excavation results to a high standard is adequately funded and if not, then preservation should be insisted upon.

4.9. The CWR site does not include Listed Buildings fronting onto the High Street / the Broadway although some modern additions to the rear are included, as is the roadway itself.

Demolition of modern extensions / buildings at the rear of historic buildings (both listed and undesignated) within the CWR site may reveal hidden historic fabric which will require recording / preservation.

4.10. All archaeological work should be undertaken to the highest professional standards. Further, archaeological contractors should have a track record in undertaking archaeological investigations on deeply stratified urban sites. CIFA Registered organisations may be preferred but any contractor will be required to conform to the Code of Conduct of the CIFA (www.archaeologists.net).

5. Evaluation and Survey Methodologies

5.1. Each phase of archaeological investigation or survey should build on and be informed by previous phases(s) of work and should be undertaken in accordance with a Written Scheme of Investigation submitted to and approved by the Council's archaeological advisor. Such WSI's should incorporate a method statement, key research aims, reference to site preservation conditions as appropriate, a statement on health and safety and a statement on archive and dissemination.

Non-intrusive assessment and survey

Historic Buildings

- 5.2. The current draft SPD proposes the retention of two historic buildings within the CWR site which are regarded as non-designated heritage assets namely the Antiques Market and the Woolstaplers' Hall (see Appendix 2 Fig. 1).
- 5.3. Pre-determination assessment and analysis should be undertaken to inform proposals for conversion or alteration. Following consent, appropriate levels of historic building recording (including interpretive drawn records) should form part of wider archaeological mitigation strategies. Recording should be undertaken in line with Historic England's *Understanding Historic Buildings: A Guide to Good Recording Practice* (2016) [link](#).
- 5.4. A photographic record of the CWR site (including views to and through) should be undertaken, creating an important record of the urban townscape prior to redevelopment.

Ground Penetrating Radar

- 5.5. Given its urban setting, there are few non-intrusive survey techniques which might be utilised within the CWR site; Ground Penetrating Radar (GPR) being the only technique (other than Electromagnetic [EM]) able to 'see' beneath surface concrete / tarmac).
- 5.6. However, there is uncertain potential for GPR to provide detailed insights into complex archaeological horizons due to likely 'noise' from previous constructions, reinforced concrete and attenuation from high water content.
- 5.7. GPR may however locate near surface structures and also help to identify those areas least affected by ground disturbances in modern or historical times as well as areas of higher potential to contain preserved coherent cultural layers and archaeological structures. Furthermore, in conjunction with data from geoarchaeological boreholes, GPR may contribute to modelling of sub-surface strata within parts of the CWR site (i.e. the interface between 'Made Ground' / archaeological layers and floodplain, floodplain and gravel, gravel and chalk).
- 5.8. The results of any GPR survey would need to be verified through intrusive site investigations.

Intrusive archaeological evaluation

- 5.9. Intrusive site investigations will form the main source of information on buried heritage assets for proposals in the CWR site and should comprise an iterative programme including:

Geoarchaeological boreholes and deposit modelling (see also section 3 & para. 5.7 above)

- 5.10. Additional dedicated geoarchaeological boreholes and the assessment of recovered cores (including AMS ¹⁴C dating) will provide important information on the date, character, quality, survival and extent of geoarchaeological and archaeological strata present within the CWR site. They will also provide information aiding our understanding of current hydrological conditions within the site, the extent, character and condition of waterlogged or otherwise preserved remains within the CWR site and information on the potential impact of an altered drainage regime on the preservation of waterlogged deposits.

- 5.11. Geoarchaeological investigations should be undertaken on a site wide basis, providing broad scale modelling across the CWR site and should be undertaken to the same standards as previous investigations within the area (see desk-based assessment for references).

Geotechnical / Site Investigation (SI) works

- 5.12. All geotechnical / SI works should be integrated into a wider archaeological evaluation programme, ensuring minimal impacts / maximum information retrieval.

- 5.13. Shallow site investigations should be subject to archaeological monitoring or detailed archaeological excavation and recording as necessary. SI boreholes should be inspected by an experienced geoarchaeologist and ideally undertaken in tandem with a purposive geoarchaeological investigation.

Trial trenching

- 5.14. Proportionate archaeological trenching will form an important part of an evaluation strategy, providing key data on character, date, preservation and significance of buried

heritage assets across the CWR site, in order to fulfill the information requirements set out above.

- 5.15. Trench locations and the scope of evaluation work should be linked to emerging development proposals, targeting areas of proposed ground disturbance and also as informed by both a geoarchaeological deposit model and the results of borehole analysis.

6. Construction / Engineering Strategies

- 6.1. Where preservation in situ is proposed as a mitigation strategy, developers should incorporate innovative design of below ground structures, foundations, drainage and services which minimise their effect upon buried archaeological remains. Consideration should be given to direct effects (truncation / removal) and indirect effects (such as to the preservation environment etc).
- 6.2. The impact of new structures to be built on sites with significant archaeological deposits close to the present surface can be mitigated by careful design of the foundations and other sub-surface elements. This approach recognises that deeper deposits would be impacted by intrusions such as pile foundations.
- 6.3. Current practice suggests that no more than 2 per cent of archaeological deposits below the footprint of any one building in a development should be destroyed by piling, with no more than 5% in total destroyed as a result of all other engineering works (Historic England, 2015, *Piling and Archaeology: Guidelines and Best Practice*, p.4 [link](#)).
- 6.4. To achieve this, below-ground elements - foundations, lifts and services - will need to be carefully designed. In addition potential impacts from other pre-construction and construction activities (for example, pile probing, trial piles, access construction etc) should also be considered.

Note: the Historic England piling guidance is currently under review and development proposals should consider the latest available version of this guidance.

Foundations

6.5. Foundation (pile) type should be carefully considered and the total number and the diameter of the individual piles (whether single or grouped) should be kept to a minimum, to limit the extent of inevitable destruction to the archaeological deposits down through which the piles must pass. For the same reason, formation levels of the pile caps and foundation beams should be designed to avoid intrusion into the underlying archaeological deposits. In line with current Historic England's advice ([link](#)) pile clusters of more than two piles should be avoided and re-use of existing piles / pile locations should be explored.

Lifts

6.6. The below-ground impact of lifts on underlying archaeological deposits can be serious and without careful design may lead to a requirement for full archaeological excavation to the depth affected. Lift designs which have limited below-ground impact should be utilised. Where some destruction is inevitable, full archaeological excavation will be required to the extent of that destruction.

Services

6.7. Services should as far as possible be grouped together in built conduits, from which branches can be laid at higher levels to individual buildings as required. Sewage lines are likely to present the greatest difficulty owing to the depths required. Where conduits and spur lines lie within archaeological levels, archaeological excavation will be required prior to construction.

6.8. A degree of overall, site-wide, planning will be required to ensure minimal damage to buried archaeological remains especially in the provision of services to the individual parts of the CWR which may or may not be under single ownership and development proposals.

7. Community Engagement and Public Realm Enhancement

7.1. The heritage of Winchester is at the forefront of public interest, both at a local and at a wider level. The comprehensive redevelopment of the CWR site offers a key opportunity to enhance the historic environment in this part of Winchester and developers will be

expected to include this within proposals, as part of a wider public realm strategy. Elements of the historic environment could be incorporated in a scheme(s) by using remains as a form of, or inspiration for, public art or a focal point within a proposal(s), creating tangible links with the past.

- 7.2. An interpretation strategy should form an important part of archaeological mitigation strategies. This also affords an opportunity to add significant value to the CWR scheme, creating a sense of place and connectivity, linking the area back into the wider history of the city core. Connectivity, could be provided through the use of conventional interpretation signage as well as through the use of information technology, for example, a discrete QR (Quick Response) trail linked to web based content. This would provide access to archaeological and historical information and could link to and encourage visits to other sites within the historic city.
- 7.3. Interpretation strategies will need to be delivered on a site wide basis and the longevity and future proofing of such interpretation schemes should be considered from the outset.
- 7.4. Archaeological mitigation strategies undertaken within the CWR site should provide opportunities to involve the local community and the wider public, both for the duration of the development itself and as a long term legacy of the scheme; this could take the form of:
 - General publicity;
 - Site visits;
 - Talks;
 - Oral and social history projects;
 - Opportunities for community / volunteer involvement in archaeological investigations;
 - Creative use of social media / technology to reach and engage different audiences;
 - Targeted involvement of schools, colleges and universities and other audiences.
- 7.5. A schedule of community engagement should form part of an archaeological mitigation strategy. This may need to form part of a S106 Agreement between the Council and the developer(s).

7.6. The Hampshire Cultural Trust and the University of Winchester as well as other local societies and organizations are likely to be key partners in community engagement projects within the CWR site, and as stakeholders are expected to be involved in the process.

8. References

Legislation, Government Guidance and Local Plan Policy

- Ancient Monument and Archaeological Areas Act, 1979
- Planning (Listed Building and Conservation Areas) Act, 1990

- Dept. of Communities and Local Government, 2012, National Planning Policy Framework
- Dept. of Communities and Local Government, 2014, The National Planning Practice Guidance: Conserving and enhancing the historic environment

- Winchester City Council, 2013, Winchester District Local Plan Part 1, Joint Core Strategy
- Winchester City Council, 2017, Winchester District Local Plan Part 2, Development Management and Site Allocations

Other references

- Davis, M J, Gdaniec, K L A et al, 2004, *Mitigation of Construction Impact on Archaeological Remains*
- Historic England, 2015, *Piling and Archaeology: Guidelines and Best Practice*
- Historic England, 2016a, *Preserving Archaeological Remains: Decision-taking for Sites under Development*
- Historic England, 2016b, *Understanding Historic Buildings: A Guide to Good Recording Practice*
- Historic England 2016c, *Preserving Archaeological Remains: Decision Taking for Sites under Development (+ appendices)*
- Ottaway, P J, 2017a, *Central Winchester Regeneration Project: Archaeological Desk-Based Assessment*
- Ottaway, P J, 2017b, *Winchester 'St Swithun's City of Happiness and Good Fortune' an Archaeological Assessment*

See also references contained in Ottaway 2017a.

9. Glossary

Archaeological Periods

- Palaeolithic (before c. 9000 BC)
- Mesolithic (c. 9000 – c. 4000 BC)
- Neolithic (c. 4000 – c. 2100 BC)
- Bronze Age (c. 2100 – c. 750 BC)
- Iron Age (c. 750 BC – AD 43)
- Roman (AD 43 – c. 450)
- Early Middle - Saxon period (c.450 – c.860)
- Late Anglo-Saxon period (c. 860 – 1066)
- Medieval (1066 – c.1550)
- Post-medieval (c. 1550 – c. 1837)
- Victorian (c.1837 – 1901)
- Modern (c. 1901 - 2018)

Alluvial (deposits) / alluvium – fine grained as well as larger grain material (sands, silts, clays) deposited in still or slow water environments.

Anoxic – deposits without oxygen, leading to the preservation of organic remains (due to the absence of most soil fauna and micro-organisms) and a reduction in the corrosion of iron objects.

AMS ¹⁴C dating – Accelerator Mass Spectrometry Dating – a method of radio-carbon dating

Biostratigraphic analysis – the study of the temporal and spatial distribution of fossil organisms within stratigraphy to assign relative ages.

Fluvial (deposits) - material deposited under (varying) energy environments of water / river channels.

Geoarchaeology – a multi-disciplinary approach to understanding the past, combining techniques from geology, geography and other earth sciences.

Geotechnical (site investigations) – ground investigations undertaken to inform the design of earthworks or foundations for proposed structures.

Holocene – the current geological era, beginning c. 11,700 years ago at the end of the last Ice Age.

Hydraulic continuity – the interconnection between ground water and surface water sources.

Non-designated assets – buildings, monuments, sites, places, areas or landscapes, which are not formally designated under the relevant legislation, but which have a degree of significance meriting consideration in the planning process (Historic England, 2014).

Late Glacial – the beginning of the modern warm period, c. 13000 to 10,000 years ago.

Lithology – a description of the physical characteristics of a rock unit.

Palaeochannel – an infilled, relict river or stream channel.

Palaeoenvironmental – biological or plant remains which can illuminate past environments.

Perched water table – an accumulation (or lenses) of water above the local or regional water table in unsaturated ground; usually due to the presence of impermeable deposits below such as clays.

Pleistocene – the Ice Age, comprising freeze / thaw cycles (typically defined as the period from 2.6 million to 11,700 years ago).

Tufa – a type of limestone formed from the precipitation of carbonate minerals from temperate water.

10. Appendix 1 – Summary of Archaeological Desk-Based Assessment

Sources of evidence: archaeology

10.1. Previous archaeological investigation on the CWR site has taken place largely in the western half. In the 1950s excavation took place in advance of the widening of St George's Street. Between 1962 and 1971 work by Winchester Excavations Committee (WEC) took place at sites on and adjacent to Lower Brook Street. In 1987 – 88 excavations by the City Museums Service took place at The Brooks in advance of construction of the shopping centre. Since 1988 there have been a number of smaller scale excavations, watching briefs and geoarchaeological boreholes on and around the site. Most recently in 2015 there was a series of trial pits ('Observation Pits' and 'Trenches') and geoarchaeological boreholes.

Sources of evidence: documentary

10.2. Evidence for the character and topography of the late Anglo-Saxon and medieval city has been derived from two surveys which together make up the *Winton Domesday*. The first survey dates from c. 1110 and is thought to be based on an earlier survey of c. 1057, the second dates to 1148. Documentary sources for the topography and many other aspects of later medieval Winchester have been studied by Derek Keene in his *Survey of Medieval Winchester* (1985). This includes a detailed history of every tenement in the city, including all of those which lay on the CWR site.

10.3. In addition to documentary sources, evidence for topography and buildings in the post-medieval and later periods may be found in a sequence of maps of Winchester and views of the city. The maps begin with John Speed's map of 1611. A more accurate map was published by William Godson in 1750. The first edition of the Ordnance Survey 1:500 and 1:2500 maps were published in 1871.

10.4. The archaeology of Winchester as a whole has recently been the subject of an Urban Archaeological Assessment (*St Swithun's City of Happiness and Good Fortune*) by Patrick Ottaway (2017). A series of reconstructed maps of the city and reproductions of historic maps and views appears in the *Winchester Historic Town Atlas* (eds Biddle and Keene 2017).

Summary of History and Archaeology

- 10.5. This section is intended to be a brief summary of what is known about the CWR site from archaeological and historical sources.
- 10.6. The earliest archaeological deposits on the site are composed of alluvium and peat deposited in the valley bottom of the River Itchen in the Mesolithic period (c. 9000 – c. 4000 BC), probably in abandoned channels of the Itchen. There is no cultural material in the peat, but it can be rich in pollen and other plant remains, as well as insects and mollusca.
- 10.7. Given its floodplain location, extensive prehistoric remains are not anticipated, although there is the potential for episodic earlier prehistoric activity on the banks of the river channels). Palaeoenvironmental remains of the later prehistoric period are however likely to be present.
- 10.8. Overlying the alluvium are deposits of the Roman period. Occupying part of the CWR site, there may have been a Conquest period fort, possibly represented by a ditch of V-shaped profile found at Lower Brook Street.
- 10.9. In c. 70 – 75 Winchester became a Roman regional, or *civitas*, capital (*Venta Belgarum*). In the late first to early second century a street grid was set out. Within the CWR site, the first east -west street north of the main street was recorded at The Brooks and a north – south street was recorded on Middle Brook Street. At Lower Brook Street a street running parallel to the earlier, possible, fort ditch was recorded which adopted a course slightly different from that of the main grid.
- 10.10. The location of the Roman forum is known but that of other public buildings cannot be easily predicted, although it is most likely that they occupied the town centre, part of which lay within the CWR site. In any event, one would expect there to be evidence for a Roman sequence of development with buildings of increasing complexity as shown at The Brooks and Lower Brook Street. In addition, a number of Roman watercourses may have existed on the CWR site.

- 10.11. The Roman walled town of Winchester in the fifth and sixth centuries was largely, if not completely, depopulated until the mid-seventh century when the Anglo-Saxon 'Old Minster' was founded. In the late seventh century activity began at Lower Brook Street with a small cemetery which probably belonged to a high status estate within the walls. Subsequently, there was a sequence of timber and stone structures.
- 10.12. In the late Anglo-Saxon period (after c. 870) Winchester re-emerged as an urban place with a new street grid. Within the CWR site late Anglo-Saxon Middle and Lower Brook Streets must lie below the modern streets. Further east another street may have run north-eastwards from High Street on the line of medieval Buck Street. Late Anglo-Saxon watercourses would have run alongside these streets.
- 10.13. Land between the streets was rapidly divided up into tenements which were occupied by buildings and other facilities in which, as The Brooks and Lower Brook Street sites have shown, a range of craft activities took place.
- 10.14. After the Norman Conquest urban development continued as before and the city's population probably continued to rise until c. 1250. The Lower Brook Street and The Brooks sites both revealed complex sequences of medieval buildings and evidence for textile production. Little is known from archaeology of the medieval topography in the central and eastern parts of the Central Winchester site, although this has been reconstructed by Keene based on documentary sources.
- 10.15. At Lower Brook Street two medieval churches, St Mary in Tanner Street and St Pancras, were excavated and shown to have had Late Anglo-Saxon origins. Another (lost) medieval church which lies within the Central Winchester site is St George. Churchyards were not associated with urban churches; however some burials are likely to have taken place within the churches themselves.
- 10.16. Neither The Brooks nor Lower Brook Street produced much archaeological evidence for occupation in the fifteenth and sixteenth centuries. Nonetheless, it is clear from the Tarrage Survey of 1417 that the core of the late medieval city around High Street, including the southern parts of Middle and Lower Brook Street and Silver Hill, remained densely settled and well built-up.

- 10.17. There is little archaeological evidence for the post-medieval period on the CWR site, although there are a few buildings on High Street which have their origins in the eighteenth or early nineteenth centuries including the Woolstaplers' warehouse. Knowledge of topographical developments is based largely on Keene's plan of c. 1550 and the maps referred to above. Both Speed's and Godson's maps show the street frontages in the CWR site were well built up, but Godson shows the land behind the frontages was largely open in 1750.
- 10.18. The first edition OS map published in 1871 shows the CWR site had become densely built up with industrial works, housing and facilities for the residents such as public houses and chapels.
- 10.19. Developments in the early twentieth century included the construction of the bus station in 1935. After World War II slum clearance substantially changed the character of the CWR site. In the 1960s a new street, Friarsgate, was created and a sequence of 1960s to 1980s developments concluded with The Brooks shopping centre.

11. Appendix 2 - Figures

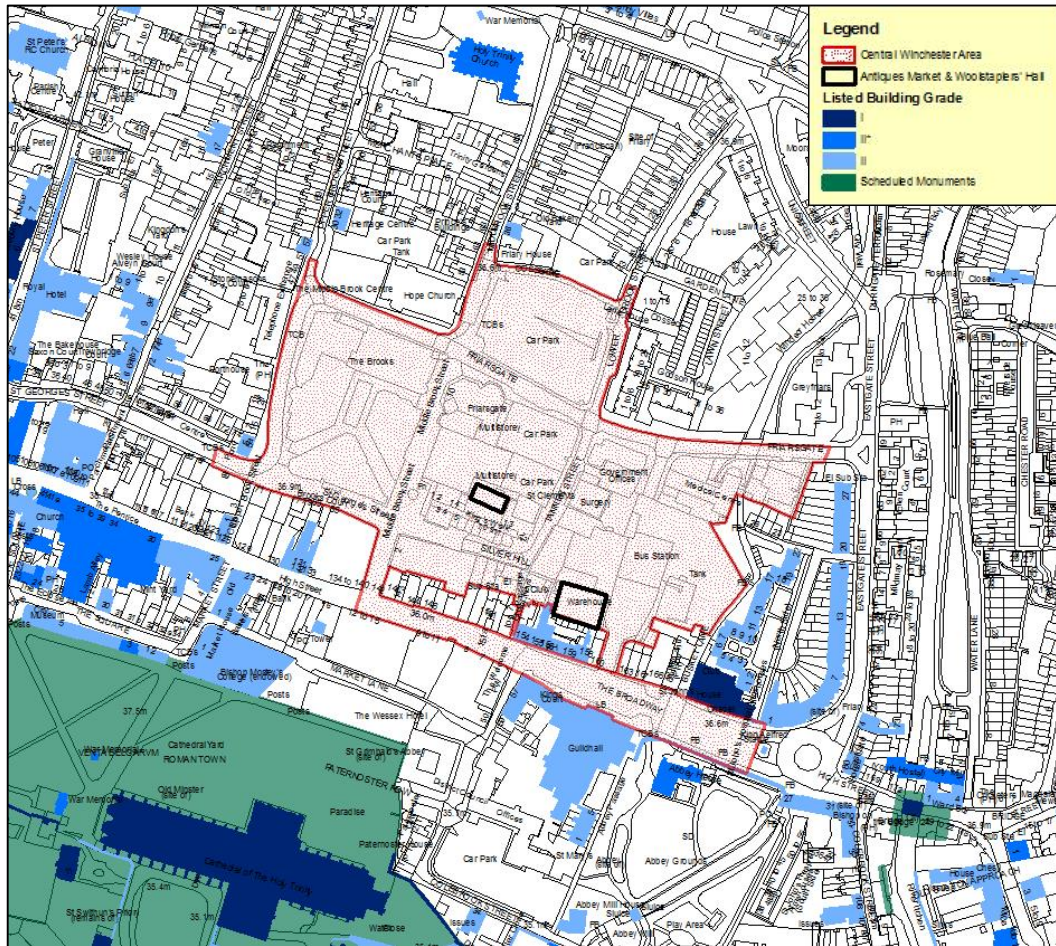


Figure 1 – Central Winchester Regeneration Site: location plan

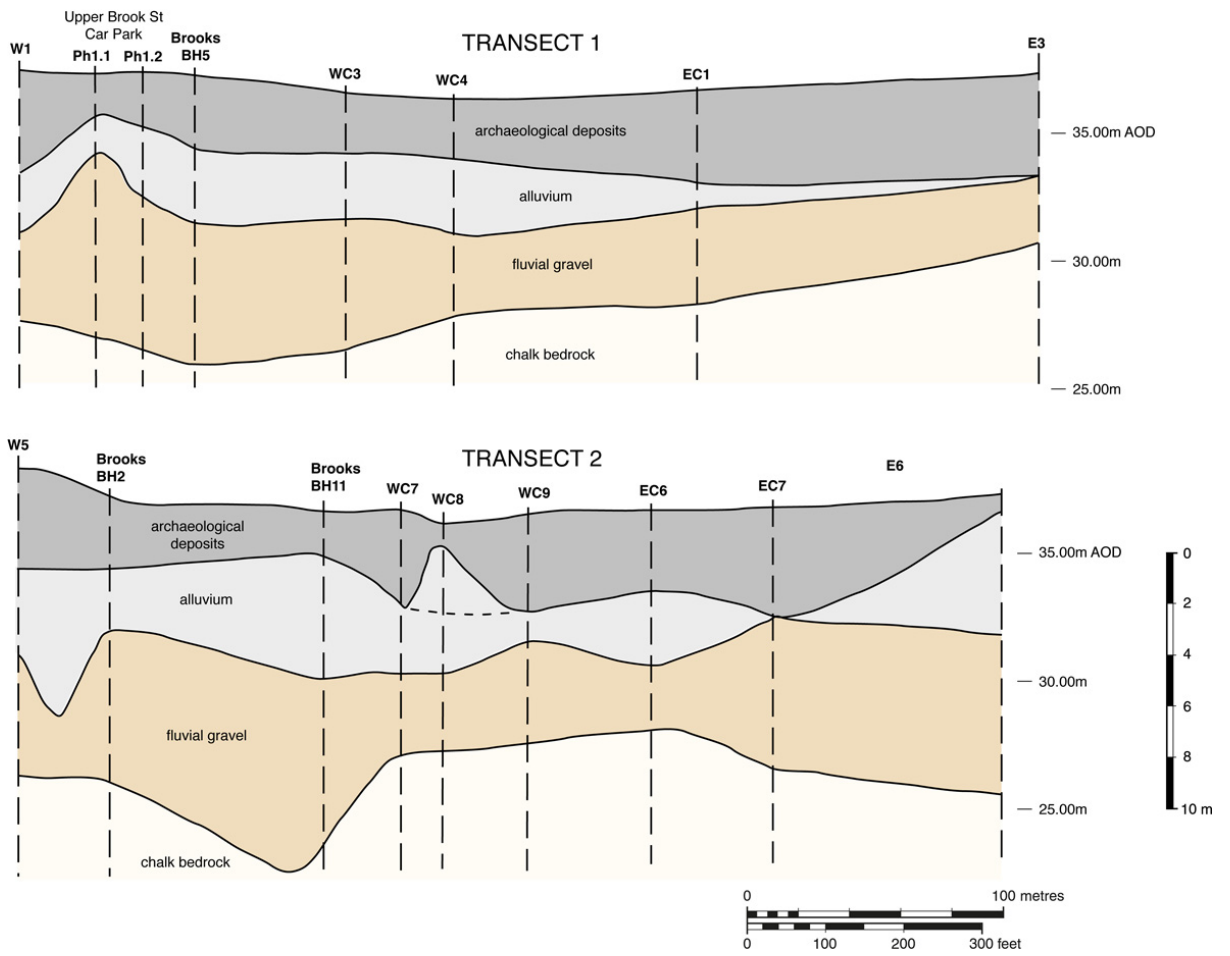
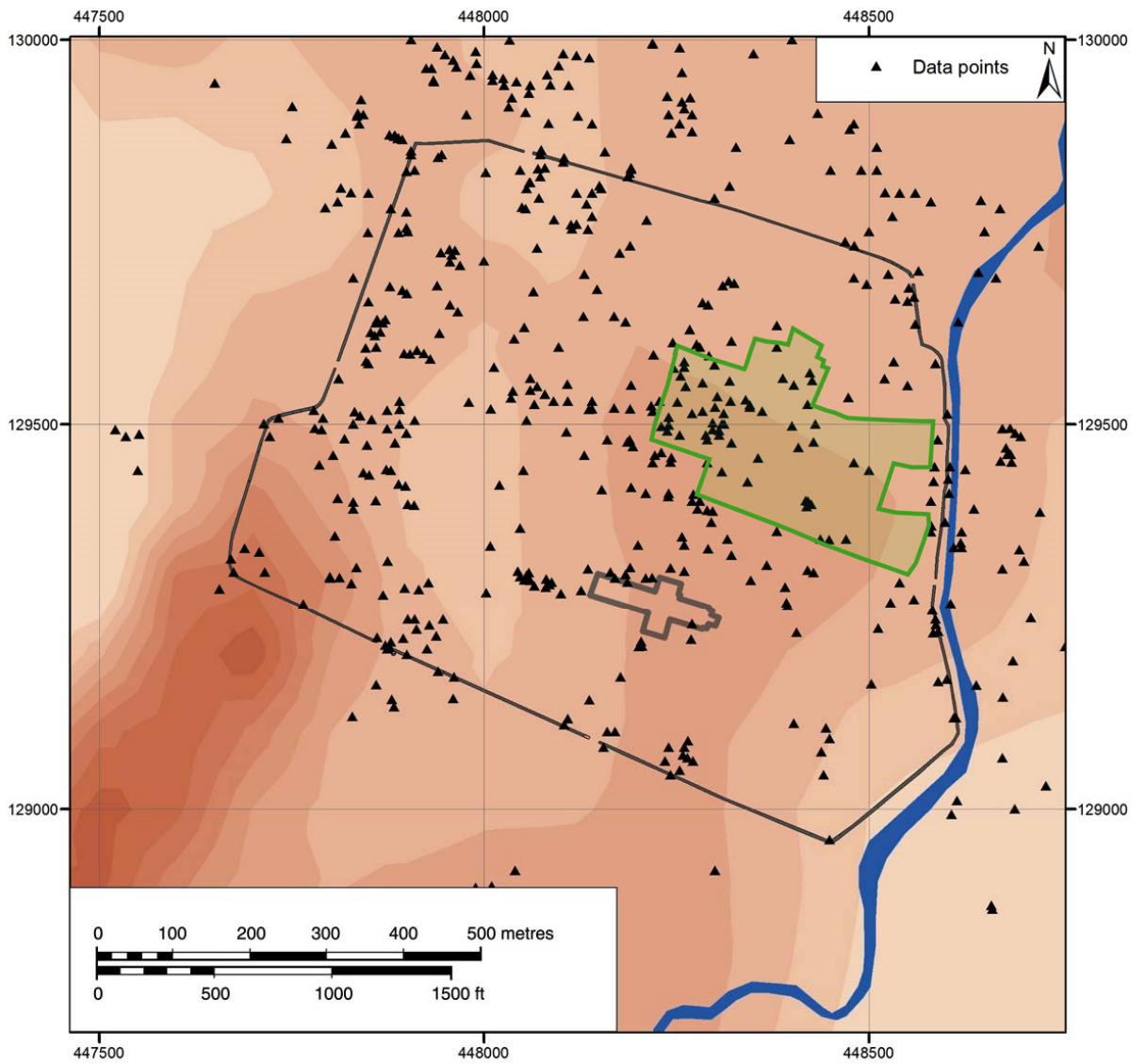


Figure 2 – West (left) to east stratigraphic transects across the CWR site.

(Source: Ottaway, 2017, Fig 22, see Fig. 17 for transect locations).



Model-predicted total thickness of archaeological deposits [Inverse Distance, weighting exponent = 2]



Figure 3 – Model-predicted total thickness of archaeological deposits
 (Source Ottaway, 2017, Fig 23 © ARCA, University of Winchester, Richard Payne)