ARCADIS Design & Consultancy for natural and built assets

LONDON BOROUGH OF HOUNSLOW SMALL SITES SMALL BUILDERS PROGRAMME

GARAGE BLOCK OPPOSITE 14 AND 16 BRENTSIDE, BRENTFORD, TW8 8BS

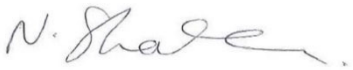
Unexploded Ordnance Survey

APRIL 2019

Incorporating
EC HARRIS BUILT ASSET CONSULTANCY
Hyder

GARAGE BLOCK OPPOSITE 14 AND 16 BRENTSIDE, BRENTFORD, TW8 8BS

Unexploded Ordnance Survey

Author	Natasha Shade	
Checker	Andrew Watts	
Approver	Tony Windsor	

Report No 10030793-ARC-16-XX-RP-YY-0001-01-UXO Report

DATE APRIL 2019

VERSION CONTROL

Version	Date	Author	Changes
01	April 2019	NS	First Issue

This report dated 30 April 2019 has been prepared for the London Borough of Hounslow (the "Client") in accordance with the terms and conditions of appointment dated 08 March 2019 (the "Appointment") between the Client and Arcadis Consulting (UK) Limited ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

CONTENTS

1 INTRODUCTION 1
1.1 Terms of Reference 1
1.2 Sources of Information 1
1.3 Limitations and Expectations 1

2 UNEXPLODED ORDNANCE SURVEY 1

APPENDICES

APPENDIX A

Zetica Regional UXO Map and Pre-Desk Study Assessment

1 INTRODUCTION

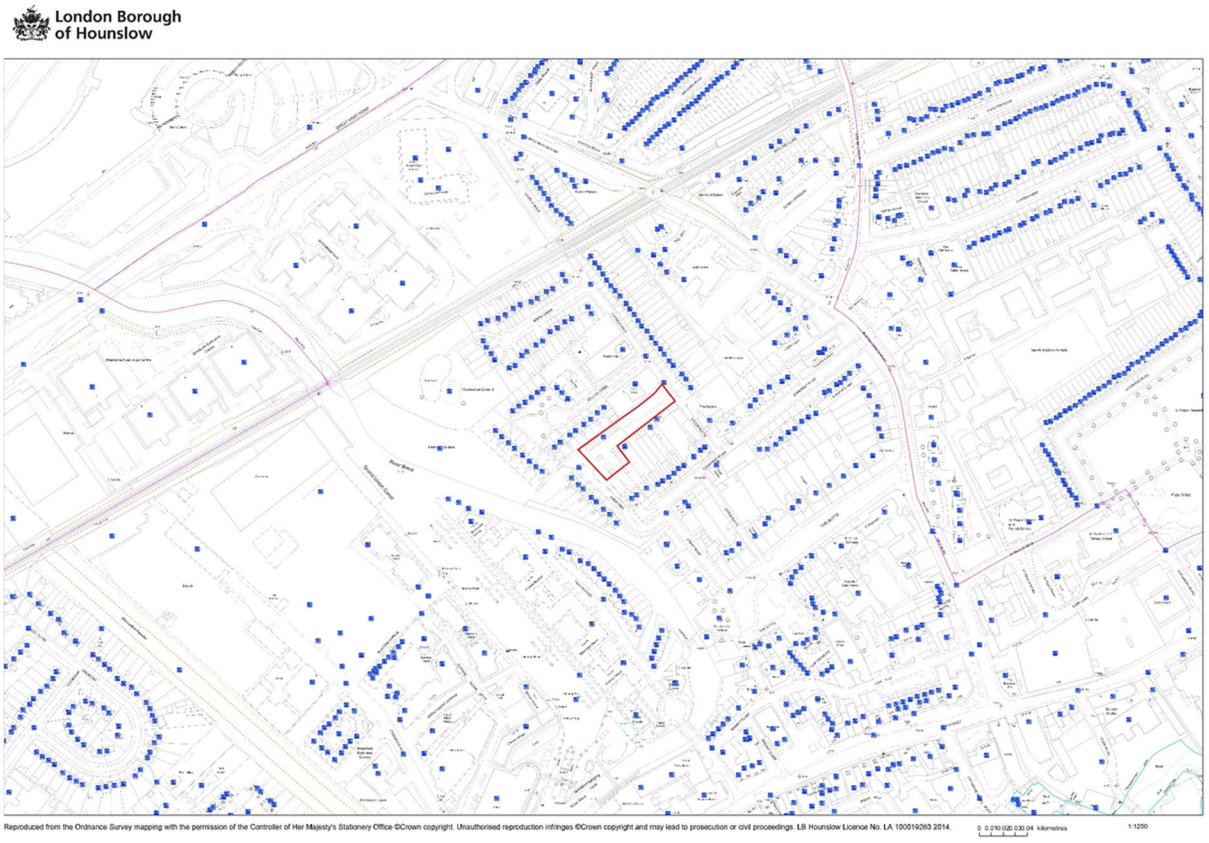
1.1 Terms of Reference

Arcadis Consulting (UK) Limited (Arcadis) has been commissioned by London Borough of Hounslow (LBH), 'the Client', to undertake a desk-based survey for a site opposite 14 – 16 Brentside, Brentford, London ('the Site').

The site is being considered for divestment under the Client's Small Sites Small Builders Programme, which aims to enable positive regeneration, that may include residential end uses. The objectives of this desk-based survey are to:

- Review online resources regarding risk of UXO on site and within its immediate environs;
- Identify potential development constraints due to UXO risk on site.

The site location is shown in Figure 1 below.



.Figure 1: Site Location Plan provided by LBH

1.2 Sources of Information

As part of this desk-based survey various sources of information have been used and are detailed below:

- Current publicly available aerial images from Google Earth; Accessed April 2019;
- Zetica Regional Unexploded Ordnance Map & Desk Study Risk Assessment Report (Appendix A); and
- Unexploded Ordnance data obtained from Bomb Sight National Archives website; available at: http://bombsight.org. Accessed April 2019.
- Historical Mapping included within the Arcadis Desk Study report for this site, (10030793-ARC-04-XX-RP-YY-0005-01).

1.3 Limitations and Expectations

This report has been prepared for the Client in accordance with the terms and conditions of appointment. Arcadis cannot accept any responsibility for any use of or reliance on the contents of this report by any third party. The copyright of this document, including the electronic format shall remain the property of Arcadis.

This report has been compiled from a number of sources, which Arcadis believes to be trustworthy. However, Arcadis is unable to guarantee the accuracy of information provided by others. The report is based on information available at the time of writing. Consequently, there is a potential for further information to become available, which may change this report's conclusions and for which Arcadis cannot be held responsible.

2 UNEXPLODED ORDNANCE SURVEY

With reference to the Zetica Unexploded Bomb Risk map for the site (Appendix A), the Site is designated as lying within an area denoted as Medium to High bomb risk.

Further reference has been made to the Bomb Sight National Archives which indicates that two High Explosive bombs were dropped within approximately 100m to the east of the Site, off Boston Manor Road and Somerset Road.

A pre-desk study assessment (PDSA) was requested from Zetica (Appendix A) which states that during World War II the Site was located in the Municipal Borough (MB) of Brentford & Chiswick, which officially recorded 358No. High Explosive (HE) bombs with a regional bombing density of 153.5 bombs per 405 hectares (ha). Readily available records have been found to indicate that several HE bombs fell in close proximity to the Site.

According to the historical mapping included within the Arcadis Desk Study for the Site, no evidence of bomb damage is apparent in post war mapping either on Site or within the immediate surrounding area.

The PDSA recommends that a detailed desk study needs to be commissioned to assess, and potentially zone, the UXO hazard level on the Site. The detailed desk study provides an in-depth review of a site's history with respect to UXO, and each hazard zone will detail the potential type/depth of UXO which could be encountered. This will ultimately help inform proposed construction techniques and for the selection of appropriate mitigation measures during intrusive works.

To ensure that the UXO risk is reduced to As Low As Reasonably Practicable (ALARP), it is important to raise the awareness of those involved in excavations through UXO awareness briefings to site staff.

APPENDIX A

Zetica Regional UXO Map and Pre-Desk Study Assessment

UNEXPLODED BOMB RISK MAP

zeticaUXO

SITE LOCATION

Location: TW8 8BS,
Map Centre: 517357,177595



LEGEND

London Bomb Risk

miltary	industry	UXO find
transport	dock	Luftwaffe targets
utilities	other	abandoned bombs

How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

Relative UXB risk across London

The relative risk for the London area is established by plotting the recorded bombing densities.

These are represented as counts of high explosive bombs in km2 area. The areas coloured green represent a record of less than 10 bombs per km2.

Compared to other areas of the UK, this still represents a significant density. However, this is much lower than parts of Central London, where the red colouration indicates in excess of 150 bombs falling per km2, representing a very significant bombing density.

What do I do if my site is in a moderate or high density area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites with a moderate or high bombing density.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: **(https://zeticauxo.com/downloads-and-resources/risk-maps/)**

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

Pre-Desk Study Assessment

Site:	Garage Block opposite 14 & 16 Brentside, Brentford, Greater London
Client:	Arcadis
Contact:	Rimjhim Singh
Date:	9th April 2019
Pre-WWI Military Activity on or Affecting the Site	None identified.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Dockyards, quays and wharves along the River Thames. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including munitions, metal and chemical works. ■ Military barracks and training areas. ■ Anti-Aircraft (AA) guns.
WWI Bombing	None identified.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	None identified.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Dockyards, quays and wharves along the River Thames. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including munitions, metal and chemical works. ■ Military barracks, camps and training areas. ■ AA and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	None.
WWII Bombing	During WWII the Site was located in the Municipal Borough (MB) of Brentford & Chiswick, which officially recorded 358No. High Explosive (HE) bombs with a regional bombing density of 153.5 bombs per 405 hectares (ha). Readily available records have been found to indicate that several HE bombs fell in close proximity to the Site.
Post-WWII Military Activity on or Affecting the Site	None identified.
Recommendation	It is recommended that a detailed desk study is commissioned to assess, and potentially zone, the Unexploded Ordnance (UXO) hazard level on the Site.

This summary is based on a cursory review of readily available records. Caution is advised if you plan to action work based on this summary.

It should be noted that where a potentially significant source of UXO hazard has been identified on the Site, the requirement for a detailed desk study and risk assessment has been confirmed and no further research will be undertaken at this stage. It is possible that further in-depth research as part of a detailed UXO desk study and risk assessment may identify other potential sources of UXO hazard on the Site.

Arcadis (UK) Limited

Arcadis House
34 York Way
London
N1 9AB
United Kingdom

T: +44 (0)20 7812 2071

arcadis.com