

# TFL\_PSF \_9131 SITE INVESTIGATIONS: SMALL SITES INITIATIVES SITE OPPOSITE COLLIERS WOOD STATION, MERTON, SW19 2BN

**Site Ref: 2546**

## **Summary Report**

JULY 2017

Incorporating

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CONSULTANCY



# Site Opposite Colliers Wood Station, Merton, SW19 2BN

## Summary Report

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This report dated 24 July 2017 has been prepared for Transport for London (TfL) (the "Client") in accordance with the terms and conditions of appointment dated 02 May 2017 (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
2	TOPOGRAPHICAL AND BURIED SERVICES SURVEY .....	2
3	FLOOD RISK REVIEW.....	3
4	ARCHAEOLOGICAL DESKTOP REVIEW .....	4
5	GEOTECHNICAL AND GEO-ENVIRONMENTAL DESK STUDY AND PRELIMINARY INTRUSIVE GROUND INVESTIGATION .....	5
6	REFERENCES .....	6

## 1 Introduction

Arcadis Consulting (UK) Limited (Arcadis) has been commissioned by Transport for London (TfL) 'the Client' to undertake a number of technical surveys for a site opposite Colliers Wood Station, Merton, London ('the Site').

TfL is aiming to divest a number of small sites to enable prospective regeneration. The objective of the Small Sites Initiative is to identify potential abnormal development costs associated with flood risk, archaeology and geotechnical and geo-environmental conditions. This report provides a summary of the technical surveys commissioned for the Site and reference should be made to the individual reports for further detailed information.

The Site is approximately 0.02 hectares in size and is centred at grid reference 526759, 170363. It is a vacant parcel of land fronting onto High Street, Collier's Wood (A24). It is covered in hardstanding of predominantly bituminous bound material and has been used as a car park. The Site is located in a suburban area characterised by residential, commercial and public buildings. The Site is bounded by High Street Collier's Wood (A24) to the east, Baltic Close to the south, Oslo Court (apartment block) to the west and residential properties to the north. Access to the Site is gained via Baltic Close where there are gates on the southern boundary.

The surveys undertaken during this study include the following;

- Topographical and buried services survey (Ref 1);
- Flood risk review (Ref 2);
- Archaeological desktop review (Ref 3); and
- Geotechnical and geo-environmental desk study and Preliminary Intrusive Ground Investigation (Ref 4).

A summary of the findings of these surveys are detailed in the following sections.

## 2 Topographical and Buried Services Survey

The topographical survey indicates that the Site is generally flat with levels varying between 12.10m and 12.19m OS.

The buried services survey indicated that there is a BT cable (north to south) in the western half of the Site. There is a gas pipeline indicated in the northern half of the site (east to west). The GPR scan also picked up some other cables / assets in the eastern end and southern half of the site but these were unidentified.

### 3 Flood Risk Review

Following the assessment of flooding to the Site from all likely sources, it is considered that there is a Medium risk of flooding to the Site from main rivers and a Low risk of flooding from surface water, groundwater and artificial sources, including sewers.

The EA *Flood Map for Planning* identifies the Site as within Flood Zone 2. Following the National Policy Planning Framework (NPPF) guidance, the Site would be suitable for all development types, but triggering the requirement for application of the Exception Test for '*Highly Vulnerable*' developments (which includes emergency services stations and command centres; basement dwellings; caravans, mobile homes and park homes intended for permanent use; and installations requiring hazardous substance consent). Use for '*More Vulnerable*' development, including residential land use, is appropriate in this Flood Zone in accordance with the NPPF, subject to satisfaction of the Sequential Test, which steers new development to Flood Zone 1. A Flood Risk Assessment (FRA) would need to be prepared in support of a planning application for any development on the Site.

The FRA would be a more detailed assessment than is presented in the Flood Risk Review and would need to be specific to the type and layout/configuration of development that is proposed. The FRA should demonstrate that the proposed development would not be subject to an unreasonable risk of flooding and that developing the Site would not subsequently increase flood risk to third parties. EA modelled flood data indicates maximum flood depths on Site of up to 0.66m during the extreme flood event. Further investigation, via the FRA, would therefore be required to demonstrate how the Site can be developed safely, identifying necessary design measures to provide adequate protection in these flood scenarios, without increasing flood risk to third parties.

It is considered that there is a low risk of surface water flooding, however there is a known history of surface water flooding in areas local to the Site. Surface water drainage and runoff from the Site should be further investigated and it should be ensured that drainage is managed to a high standard. Current rainfall-runoff rates and volumes, as well as greenfield runoff rates for the Site should be calculated. A Drainage Strategy should then be developed as part of a planning application, in consultation with the Lead Local Flood Authority and Thames Water, which should detail methods, including the use of Sustainable Drainage Systems to manage site runoff, which would ideally be controlled to match greenfield rates.

Subject to production of an FRA and Drainage Strategy for any future planning application and the implementation of the flood resilience recommendations from these studies, it is considered that flood risk would not limit any form of development on the Site.

## 4 Archaeological Desktop Review

The archaeology desktop review involved a rapid information-gathering and review exercise on the Site and a 500m study area using information from publicly held sources. A brief assessment of potential heritage/archaeological constraints and opportunities at the Site has been made. Although the Site has potential for buried archaeological remains to exist, these heritage assets are not considered likely to prevent development on the Site.

The review assessed that the key heritage constraints to development are that the Site lies within the Wandle Valley/Colliers Wood Archaeology Priority Area. There is a medium potential for Roman remains including possible survival of the road surface of the adjacent Stane Street and roadside activity such as drainage ditches. The location of the Site has attracted settlement and industry in the past, being located between a Roman thoroughfare and the River Wandle. There is a medium potential for medieval and post-medieval industrial activity to survive on the Site. The Site may contain deposits from previous courses of the River and past flooding events. Waterlogged remains could be present which may offer good potential for survival of organic remains.

There are no Scheduled Monuments within the Site. There are eight Listed Buildings within the Study Area, all Grade II, but none within the Site boundary. One Listed Building - Colliers Wood Train Station - is located opposite the Site. There are no Registered Parks and Gardens within the Study Area. The Site lies within The Wandle Valley Conservation Area.

For any future planning application, the potential for below ground remains need to be fully evaluated. The Greater London Archaeological Advisory Service (GLAAS) who advise the local planning authority are likely to recommend a full archaeological desk-based assessment and an evaluation to be undertaken prior to planning permission being determined. This would include a specific archaeology Site walkover, a visit to the record office to gather historic maps and relevant documentary evidence, a map regression exercise as well as preparation of distribution maps showing designated and un-designated heritage assets. The evaluation would likely consist of a programme of trial trenching and subsequent reporting. If heritage assets of significance are encountered during the evaluation stage, there may be a requirement for further recording in the form of an excavation or watching brief. This may be delivered through a post-determination condition.

## 5 Geotechnical and Geo-Environmental Desk Study and Preliminary Intrusive Ground Investigation

The geo-environmental and geotechnical desk study comprised a review of existing historical and current information on the Site.

The historic review of the Site indicated terraced properties have been recorded within the Site and a second feature possibly a building (unknown use) was noted after the properties were demolished. Potential off-site sources of contamination including a nearby dry cleaners and petrol filling station are recorded.

A preliminary site investigation has been undertaken comprising two boreholes to consider the ground conditions and give an indication of the levels of contaminants on the Site.

Potential risks to human health, controlled waters and the built environment have been identified from on-site Made Ground and ground gas / vapours are possible risks to human health from the off-site sources. Gross contamination was not encountered during the preliminary ground investigation, however, concentrations of contaminants (lead, arsenic, PAHs and asbestos) within the Made Ground were recorded in excess of applicable guideline values for a sensitive residential land use. However if apartments or retail with first floor flats are proposed, hardstanding is likely to cover the majority of the Site. This would reduce the risk to future end-users as potential pathways to the contaminants would be broken. Where soft landscaping is proposed (e.g. for gardens), a clean cover system is likely to be required to remove the risk.

Further development specific ground investigation will be required to confirm the requirements for development. These include (but not limited to):

- Confirm concrete design for foundations and services including the London Clay;
- Investigation of the eastern part of the Site which was not possible during preliminary investigation due to London Underground restrictions;
- Further gas monitoring and assessment of the potential risk of ground gases to receptors, and to determine whether gas protection measures would be required for future development. Appropriate consideration of BS8485 may enable a reduction in abnormal costs when applied to the proposed design for the Site and should be consulted early within the detailed design stage; and
- Consideration of shrinkage and swelling, trees, potential for relict shear slip surfaces, buried services and the nearby London Underground assets may need to be taken into account during the design.

Based on the findings of the desk study report and assuming that the Site will be developed for residential use with gardens, it is anticipated that some remediation (off-site disposal, clean cover, gas membrane, basic asbestos monitoring and pipe upgrade but excluding foundation) may be required. Indicative costs are provided in the desk study report (Ref. 4) which are based on the information known to date.

The Site is in an area where 'low' risk of encountering unexploded ordnance is present and further assessment is not considered necessary.



## 6 References

1. 40Seven (May 2017) Topographical and Utility Mapping Survey - Site Opposite Colliers Wood Station, Merton, SW19 2BN. (Site Ref: 2546) (Drawing Number 2546- Colliers Wood Rev A)
2. Arcadis Consulting (UK) Limited (July 2017) - Site Opposite Colliers Wood Station, Merton SW19 2BN Flood Risk Review (Report 302-UA009686-UU41R-04)
3. Arcadis Consulting (UK) Limited (June 2017) - Site Opposite Colliers Wood Station, Merton SW19 2BN Archaeological Desktop Review (Report Number 303-UA009686-UU41R-03)
4. Arcadis Consulting (UK) Limited (July 2017) - Site Opposite Colliers Wood Station, Merton SW19 2BN Preliminary Geotechnical and Geo Environmental Report (Report Number 301-UA009686-UP32R-03)

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