

TFL_PSF_9131 SITE INVESTIGATIONS: SMALL SITES INITIATIVE LAND AT NEWHAM WAY, LONDON, E13 8PF

Summary Report

FEBRUARY 2019

Incorporating

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LAND AT NEWHAM WAY, LONDON, E13 8PF

Summary Report

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CONTENTS

1	INTRODUCTION	1
2	TOPOGRAPHICAL AND BURIED SERVICES SURVEY	2
3	FLOOD RISK ASSESSMENT	3
4	ARCHAEOLOGY DESKTOP REVIEW	4
5	ECOLOGY ASSESSMENT	5
6	ARBORICULTURAL SURVEY.....	6
7	GEOTECHNICAL AND GEO-ENVIRONMENTAL DESK STUDY	7
8	REFERENCES	8

1 Introduction

Arcadis Consulting (UK) Limited (Arcadis) has been commissioned by Transport for London (TfL) to undertake a number of technical surveys for a site referred to as Newham Way, 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 provide robust and pragmatic advice that sensibly de-risks each of the sites such that unreasonable "abnormal" development costs are not incurred by developers.

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 occupies a plot of land at the corner of the junction of Newham Way and Salomons Road, Newham, in a generally urban setting surrounded by residential buildings.

The Site is approximately 0.1ha in area and is centred on National Grid Reference (NGR) TQ 40994 81778. The Site is currently covered by a landscaped area (grass/borders) crossed by hard-surfaced paths. The buildings immediately to the north and west of the Site are residential dwellings. The road immediately to the south of the Site is a slip-road of Newham Way.

The surveys carried out for Newham Way, London comprise the following;

- Topographical and Buried Services Survey (Ref 1);
- Flood Risk Assessment (Ref 2);
- Archaeological Desktop Review (Ref 3);
- Ecology Assessment (Ref 4)
- Arboricultural Survey (Ref 5); and
- Geotechnical and Geo-Environmental Desk Study Report (Ref 6).

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 recorded ranging between 1.65m and 1.97m (Ordnance Survey Datum). The Site is landscaped with paths and vegetation / trees indicated.

No utility services appear to cross the Site.

3 Flood Risk Assessment

Following an assessment of flood risk to the Site, it is considered that there is a Low or Very Low risk of flooding from all of the sources assessed. The degree of tidal and fluvial flood risk is dependent on the installed defences on the River Thames. These defences protect the Site up to the 0.1% flood event in the present day from both tidal storm surge and fluvial flooding. In accordance with TE2100 policy these assets should be maintained to provide the same level of protection into the future, accounting for the predicted effects of climate change.

In line with the NPPF and PPG, the Sequential Test should be applied to proposed to redevelop the site. To satisfy the Sequential Test, it should be demonstrated that no other sites, at lower risk of flooding, could accommodate the proposed development. In practice, with much of the borough of Newham shown to be located in Flood Zone 3, and those areas protected by a high standard by significant flood defence infrastructure, it is likely to be relatively straightforward to demonstrate that land outside of Flood Zones 2 and 3 within the borough cannot solely accommodate the borough's redevelopment needs. This is referred to in para. 3.4 of Newham's Sequential Test document undertaken during preparation of the Local Plan Review. Given its location in Flood Zone 3, the Site would be suitable for 'Water Compatible' and 'Less Vulnerable' development types but would trigger application of the Exception Test for 'More Vulnerable' (which includes residential land use) and 'Essential Infrastructure' uses. The Site would not be appropriate for 'Highly Vulnerable' development types (which notably include basement dwellings). It is further noted that the EA advises against the placement of sleeping accommodation at ground floor level in areas potentially affected by flooding following a breach in the Thames Tidal Defences, as such, ground floor self-contained flats are unlikely to be acceptable at the site.

As a defended Site, with a residual risk of flooding, any future planning application for development of the Site would need to be informed by a Flood Risk Assessment (FRA). The FRA would present a more detailed assessment than is provided by this 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 any proposed development would not be subject to an unreasonable risk of flooding and would not increase flood risk to third parties. If proven, this would satisfy the Exception Test.

It is considered that currently there is a low risk of surface water flooding and sewer flooding, however increasing urbanisation in the Borough and the predicted effects of climate change are acting to increase this risk. Surface water drainage and runoff from the Site, including available connections with and capacity of the local sewer network, should be further investigated in consultation with Thames Water. Further investigation should include the calculation of current rainfall-runoff rates and volumes, greenfield runoff rates for the Site and confirmation of the available capacity of the local and wider sewer networks. This should be undertaken as part of a Drainage Strategy designed to meet the London Plan requirement that developers should aim to achieve greenfield runoff rates and use SuDS unless there are practical reasons not to. A Drainage Strategy should be developed in consultation with LBN, detailing methods to manage runoff from the Site. According to Newham Council's SFRA, there are potentially 'opportunities for bespoke infiltration SuDS' at the Site.

Overall it is considered that, except for a restriction on basement dwellings and sleeping accommodation at the ground floor level, subject to appropriate sustainable drainage design and suitable FRA, the Site is appropriate for residential uses and most other forms of development.

4 Archaeology Desktop Review

An archaeological desk-top review of the Site at Newham Way has been carried out. This involved a rapid information-gathering and review of 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.

There are no designated assets within the Site or its study area. There are no known non-designated asset on the Site but there are 12 within the study area as reported by the Greater London Historic Environment Record (GLHER). These range from the Prehistoric to Modern periods. The majority of the assets relate to the Prehistoric, Medieval and Post Medieval eras and are connected with past landscapes, extraction, drainage or dump deposits.

The GLHER has identified that the Site was located close to an island in a marshy and water-logged area in the Prehistoric period. This adds archaeological potential to the Site. However, a historic map regression exercise revealed that the Site was previously residential properties. It is not clear how much of an impact these structures would have had on potential buried archaeology pre-dating their construction. A high explosive bomb was dropped either on the Site or within close proximity during the Blitz in WWII which could have also had an impact to the archaeological remains on the Site. The Modern period is well represented on the Site as it once contained a row of houses. This housing could remain as below ground archaeological remains in the form of brick foundations and occupation debris.

Overall the review has identified that there is medium potential for Prehistoric archaeological remains, low to medium for Roman remains, medium to high potential for Modern and a low potential for all other time periods to survive on the Site.

At present it is not considered that this potential would impinge on any future development. However, it is recommended that an archaeological trial trenching event take place on the Site, in the event of any future planning application. This is mainly due to the close proximity of two archaeology priority areas to the Site, these areas have been recognised for the survival of organic Bronze Age artefacts and structures.

5 Ecology Assessment

The ecological assessment comprised a desk-based study using publicly available information and an ecological constraints survey to identify potential constraints present on Site.

Based on the assessment undertaken to date, there are no likely significant ecological constraints with regards to the development of this Site.

No Statutory or non-statutory designated sites (including ancient woodlands or woodlands listed on the Ancient Woodland Inventory (AWI)) were identified within the vicinity of the Site have the potential to be significantly impacted by development on the Site.

Constraints are listed below:

- The Site was dominated by Intact species-poor hedges and scattered trees. The habitats on Site were generally un-diverse due to management for ornamental purposes. However, these habitats have value in terms of green infrastructure, likely performing important ecosystem services (such as water quality and volume attenuation and air quality attenuation etc.).
- There is potential for nesting birds to be utilising the vegetation on the Site, including species listed on London BAP and Priority Species S41 such as house sparrow. Removal of all trees and hedges on the Site will need to be conducted outside of the bird nesting season (March – August inclusive) or under an ecological watching brief.
- There is potential for fox and hedgehogs which is a London BAP and Priority Species S41 (also protected from inhumane killing or injury) to use the Site. Employ a two-stage removal of scrub suitable for hibernating hedgehogs should this be required during the hibernation season (November to March seasonally dependant).
- There will be some ecological benefit from the removal of non-native and invasive species on LISI, which is likely to occur when the Site is cleared for any construction. There is no legal obligation to control the LISI species (Butterfly-bush) recorded on the Site or to remove it as controlled waste but it is good practice to remove them and to avoid their spread.
- Trees and other vegetation should be replaced within any proposed soft landscaping and these designs should be evolved in liaison with an ecologist and arboriculturist. In addition, rain gardens, biodiversity roofs and other green infrastructure should be considered within any development.
- There are also opportunities for enhancements for London BAP species. Bird boxes for sparrows would be a valuable enhancement, along with bat roosting boxes. Implementation permeable fencing would be of benefit to small mammals, such as hedgehog, which is a priority species currently in decline.

6 Arboricultural Survey

A constraints walkover and assessment was conducted to describe the general arboricultural features and potential constraints with regards to trees on Site.

A total of seven arboricultural items were recorded within the study area as follows:

- Five individual trees on-Site; and
- Two individual trees off Site.

Four individual trees, and two off Site individual trees were graded as Category B (trees of moderate quality). One on Site individual tree has been identified as Category C (trees of low quality).

There is currently no proposed design layout and therefore it is not possible to say whether the trees would need to be removed and if there is space for any new trees to be re-provisioned on the site. This can be determined once designs are developed.

The only tree species present within the Site is Common lime (*Tilia x europaea*).

While the Site is not within a Conservation Area nor are any of the trees covered by a TPO, the location of the on-Site trees shields the properties adjacent to Newham Way view of the busy road and are likely to contribute to noise and light level reduction. This should be considered during development proposals.

While unlikely to prevent development, tree protection for trees to be retained and tree re-provisioning for any trees lost due to development are a material consideration for planning determination. If trees cannot be replaced on-Site due to development, off-Site options for tree re-provisioning to ensure no net loss should be considered. Individual Local Planning Authorities may ask for re-provisioning in excess of 1 to 1 for trees of Category B grade.

The main development considerations for the trees are:

- Over-hanging crowns;
- The planting location, height, width and density of the crowns will cast shade on to the Site;
- The Root Protection Area RPA of the trees within the Site.

Should any future proposed development require tree removals or RPA incursions within RPAs of the retained trees an Arboricultural Impact Assessment (AIA) will be required by the LPA in support of a planning application.

A bespoke Arboricultural Method Statement may be required post planning and when the construction details are known to protect the retained trees within and adjoining the Site.

All new tree planting should be in accordance with British Standard 8545: Trees: From Nursery to Independence in the Landscape – Recommendations, 2014 and all tree works must be carried out by a qualified contractor in accordance with BS3998:2010: Tree Work – Recommendations.

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7 Geotechnical and Geo-Environmental Desk Study

The geo-environmental and geotechnical desk study comprises a review of existing historical and current information on the Site. No intrusive site investigations have taken place.

The historical review revealed previous development on the Site is limited to residential housing, which was demolished between 1991 and 2006. Surrounding the Site, a garage adjacent to the north west (circa 1955-2006) and an electricity substation approximately 100m north-east (circa 1952-1981) are two potential sources of contamination. The substation is not up hydraulic gradient from the Site so is unlikely to have an impact, however due to the proximity of the garage the potential for contamination is a much higher risk.

Potential risks to human health, controlled waters and the built environment have been identified associated with potential on-site sources of Made Ground, Alluvium and London Clay. Possible risks to receptors from an off-site source (Car Repair Garage) have also been identified. It is recommended that an intrusive site investigation is carried out prior to redevelopment to quantify these risks. This should include the contamination testing of soils and leachates, groundwater monitoring and gas monitoring in accordance with best practices and current guidance.

Potential founding solutions will be dependent on the thickness of Made Ground and the geotechnical properties of the natural deposits. Made Ground is generally considered unsuitable for foundations due to its variable composition and its potential for high total and differential settlement. Deeper trench fill may be possible although the maximum practical extent of this type of foundation is in the region of 2-2.5m. In areas of deeper Made Ground, or where deeper soft / loose bands are recorded either piling or ground treatment e.g. vibro-stone columns should provide a suitable foundation solution. The advice of a specialist ground improvement contractor should be sought to verify the suitability of the ground for treatment. The presence of existing and future trees should be considered, as well as the risks associated with London Clay.

The Site is located in an area where there is a 'Moderate to high' risk of encountering unexploded ordnance (UXO), due to several High Explosive bombs falling in close proximity to the Site. A detailed desk study was produced by Zetica which considered the Site to have a low UXO hazard level.

8 References

- 1) 40Seven (2019) TfL Sites Phase 2 Small Sites Newham Way Pas128 M4p Underground Utility Mapping Survey (1670_P_Newham_Way)
- 2) Arcadis Consulting (UK) Limited (2019) TfL Phase 2 Site Investigations: Small Sites Initiative Newham Way, London 10024781-ARC-04-XX-RP-YY-0001-01-Flood Risk Review
- 3) Arcadis Consulting (UK) Limited (2019) TfL Phase 2 Site Investigations: Small Sites Initiative Newham Way, 10024781-ARC-04-XX-RP-YY-0001-01-Archaeology Desktop Review
- 4) Arcadis Consulting (UK) Limited (2019) Newham Way, Ecology Assessment (Report Number 10024781-ARC-04-XX-RP-YY-0001-01-Ecological Assessment)
- 5) Arcadis Consulting (UK) Limited (2019) Newham Way, Preliminary BS5837:2012 Tree Survey Report (Report Number 10024781-ARC-04-XX-RP-YY-0001-01-Arboricultural Report)
- 6) Arcadis Consulting (UK) Limited ((2019) Newham Way, Geotechnical and Geo Environmental Desk Study (Report Number 10024781-ARC-04-XX-RP-YY-0001-01-Geo Report)

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