



The re-erection of Gasholder No 8 guide frames Kings Cross Central London N1

London Borough of Camden

Written Scheme of Investigation for
an archaeological investigation

National Grid Reference: 529915 183675

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1 Introduction

1.1 Objective of this Written Scheme of Investigation

This Written Scheme of Investigation (WSI) for archaeological investigation on the site for the re-erection of Gasholder No 8 at Kings Cross Central has been commissioned from Museum of London Archaeology (hereafter MOLA) by the client, King's Cross Central General Partner Ltd.

The document supports the submission of Enabling Works details and the Earthworks and Remediation Plan for the re-erection of the Gasholder No 8 guide frames, pursuant to the King's Cross Central (KXC) Outline Planning Permission dated 22 December 2006 (ref. 2004/2307/P).

Volume 2, parts 9 and 10 of the Environmental Statement (ES) submitted with the KXC outline planning application comprise the Cultural Heritage Specialist Report and Archaeology Specialist Report, respectively. Part 10 includes an account of the known archaeological conditions within KXC, and determines archaeological potential. It discusses mitigation objectives incorporated within the development proposals based on anticipated effects.

This document provides the strategy for archaeological investigation and mitigation of the potential effects on the site for the re-erected Gasholder No 8, as reported in the ES. It commits to undertaking appropriate specified archaeological works in a manner prescribed by the method statement contained herein. As such, the document fulfils the requirements of Conditions 56 of the Outline Planning Permission in so far as it applies to the proposed site of the re-erected Gasholder No 8.

1.2 Site Context and Development Proposals

The approved KXC scheme comprises the phased, mixed-use development of the former King's Cross Railway Lands to include commercial, cultural, educational and residential uses, together with new public realm and associated infrastructure. In this context, the proposed scheme for this part of the site is the creation of a public park within the guide frame structure of the re-erected gasholder. Details of the ground works associated with these proposals are set out in Section 1.5 of this WSI. Fig 1 shows the location of the site in the wider context of the KXC development.

The site lies in the northern part of the KXC development, at the north-west terminus of Wharf Road and to the west of the Western Goods Shed (due for demolition Autumn 2012). It is bounded to the south by the towpath running adjacent to Regents Canal. The site currently forms part of the main construction site with mixed temporary access roads, paths, site accommodation, storage and bare soil slopes. Groundworks have already commenced for Building T1 immediately to the west and Building P1 to the north. The Triplet Gasholders will eventually be relocated immediately to the west: their proposed location falls partly within the eastern part of the Gasholder No 8 construction site boundary. The centre of the site lies at National Grid reference 529915 183675.

Recent surveys indicate that ground levels within the area of the site vary between 24.77 OD (south) and 27.07m OD (west).

1.3 KXC Outline Planning Permission

Condition 56 of the Outline Planning Permission dated 22/12/06 (ref. 2004/2307/P) requires a programme of 'Archaeological Investigation and Mitigation' to be carried out during the implementation of the scheme. Details of Condition 56 are as follows:

No development shall take place in relation to each phase of Development as notified under condition 21 until the applicant, their agent or successors in title has secured the implementation of a programme of archaeological work in accordance with a written scheme for investigation which has been submitted by the applicant and approved by the local planning authority.

Reason: Important archaeological remains may exist on the site. The requirements of this condition are to secure the provision of archaeological investigation and the subsequent recording of the remains prior to development and to minimise damage to them in accordance with the Environmental Impact Assessment, in accordance with the policy B8 of the London Borough of Camden Replacement Unitary Development Plan 2006.

This condition was imposed as a means of securing the mitigation measures identified and proposed within the KXC Environmental Impact Assessment and the resulting ES.

Generally for the Central Area of the KXC development (as defined in the Cultural Heritage Specialist Report and Archaeology Specialist Report in the ES), an Archaeological Watching Brief process was determined to be the most appropriate mitigation measure, due to large areas having been just used as railway sidings

This document sets out the strategy to ensure that archaeological objectives are achieved in order to satisfy Condition 56 in respect of Enabling Works and the Earthworks and Remediation Plan for the site of re-erected Gasholder No 8. The proposed strategy has been formulated following discussion with the client and the English Heritage (GLAAS) Archaeological Advisor to the London Borough of Camden.

1.4 Archaeological Background

1.4.1 Summary History of the Site

The findings of the KXC Environmental Impact assessment and other research indicate that no pre-industrial aged archaeological remains have been found on site. Furthermore, the history of development shows the site to have 'no', or just local, archaeological potential related to all pre-industrial periods.

The character of activity on the site relating to the pre-industrial period can be summarised as follows:

- Wooded landscape in prehistoric times with increasing small scale clearance for farming from the Neolithic period onwards.

- Agricultural landscape from the Roman through to the post-medieval period on the eastern flanking slope of the Fleet Valley.
- Shallow quarrying for weathered clayey soils for brickmaking during the 17th and 18th century.

The mid-19th century creation of the Great Northern Railway Goods Depot saw the following activities develop in the northern part of the Kings Cross Central site:

- In the north, the terracing back of the gentle south facing slopes to create a sub-horizontal ground surface.
- In the south, the raising of ground level with spoil from the north end of Kings Cross Central, to complete the level landscape as it approaches the Regent's Canal.
- Construction of an arrangement of buildings servicing the railway industry.
- Construction of a vast network of railway tracks throughout the northern part of the site.

Reference to historic plans and maps shows that the site for Gasholder No 8 was located within an extensive landscape of railway sidings, with terminating tracks visible in the northern part of the site, either side of Wharf Road (see first edition OS map of 1895 – Fig 2). The historic maps also show a number of small brick buildings, some of which are labelled as offices, and a series of larger rectangular structures which were probably open-sided sheds or canopies associated with the terminating tracks.

Railway functions continued on the site from the mid 19th century through to the period after World War II with some damage sustained by structures as a result of German bombing. The period between the 1960s–1980s marked a decline of the railway for the transportation of goods, resulting in the phased demolition of some of the buildings in the northern part of the KXC site and the removal of most of the railway sidings, including those which covered the Building P1 site. Save for the listed buildings within the Eastern Goods Yard, the Western Goods Shed and the Fish and Coal building, all residual railway related infrastructure was subsequently removed as part of the CTRL works between 2001 and 2003.

1.4.2 Structures/features in the Vicinity of the Proposed Works

Western Goods Shed

The Western Goods Shed, to the west of the site was constructed between 1897–1899 on the site of the former coal and stone basin. It is a brick built structure that combined load bearing walls with a steel frame. There is a lower and upper level, whilst offices were built on the western side and in the roof area above the upper level. There are cast iron columns at the lower level, supporting concrete jack arched ceiling with composite girders. At the upper level the supporting elements are of lighter construction in the form of composite pillars supporting lattice beams and a truss roof. The roof runs from south-west to north-east and there are two gable roof ends at the southern façade, whilst the northern end, added in 1913–15, has a saw roof, running west to east. The building utilises the west wall of the adjacent Western Coal Drop building for its eastern wall, which had been strengthened and heightened for this purpose. The building is functional in appearance and has surviving features

from its industrial past. In parts, the building is in a state of decay in particular at its northern end. The building will be demolished before commencement of works on the site of Gasholder No 8.

1.4.3 Previous archaeological work in the immediate vicinity

Recent archaeological investigations on the site of Building P1 immediately to the north of the site (site code KGC12) revealed infrastructure associated with the Western Goods Yard at King's Cross.

A wall foundation running north-east–south-west was recorded in the south-east of the site and is thought to be a retaining wall for a railway siding directly related to the Western Goods Shed, which was constructed in c 1897. Railway tracks were also recorded, the locations of which can be identified on OS maps dating from the 1870s to the 1960s. Across much of the site, a surface of granite setts set into concrete was recorded; this surface is also thought to be associated with the further development of the Western Goods Yard in the late 1890s, but had been resurfaced with tarmac and continued to be utilised until the late 20th century.

No archaeology predating the industrial development of King's Cross in the mid-19th century was identified and much of the infrastructure on site can be attributed to 1897 onwards. No evidence was found of the buildings visible on the 1895 OS map which predated the construction of the Western Goods Shed, and it is likely that these structures had been truncated away by the concrete and granite sett surface.

Surfaces and railway infrastructure associated with the post 1897 Goods Yard were recorded at c 23.90–25.00m OD across much of the site, but adjacent to the Western Goods Shed (and its basement-level activity) Goods Yard infrastructure survived at 22.00–22.50m OD. The average depth of archaeological deposits where they survived was 1.43m.

1.4.4 Geotechnical investigation on the site

Recent geotechnical work on the Gasholder No 8 site revealed Made Ground (top between 25.07m AOD and 27.45m AOD) overlying London Clay. The depth of the Made Ground (which may include archaeological deposits and features) varies between 1.6m and 3.7m. The surface of London Clay was recorded between 21.67m AOD and 23.91m AOD.

1.5 Outline of Proposed Groundworks

As noted in Section 1.2, the proposals involve the re-erection of the Grade II Listed Gasholder No 8 which was originally located on the south side of Regent's Canal. The refurbished structure will sit in new landscaping. Within the guide frame structure, a new public park will provide play facilities and flexible amenity space for all the community.

The required ground works are set out in detail in the submitted Enabling Works details and Earthworks and Remediation Plan but can be summarised as follows:

- Site strip to 24.5m OD on western side and 25m OD on eastern; the step in level is to accommodate a piling rig on the western side (Fig 3)
- Install 500mm piling mat on western side of site (Fig 4)

- Install sheet piles around outer face of ring beam perimeter to accommodate shuttering
- Excavate footprint of ring beam; 1.5m of working space on inner face of ring beam; extended working area and 1:1.5 batter up to 25m AOD.

Further work to be undertaken, but not yet confirmed as part of this package of works, is to trim down to accommodate future landscaping:

- Reduce internal levels of the Gasholder down to 24.7m AOD to accommodate hard landscaping
- Reduce external levels of Gasholder down to 25m AOD in the north, tapering to 23.5m AOD at the canal side (ie split between un-remediated soil and the piling mat)
- It is also intended that the brick wall along the canal path will be removed: full extent to be confirmed.

Fig 6 shows the sequencing of works in section.

1.6 Status of Document

This document forms the Written Scheme of Investigation for archaeological investigation and mitigation in respect of Enabling Works and the Earthworks and Remediation Plan for the site of Gasholder No 8, as required under condition 56 of the KXC Outline Planning Permission. The archaeological objectives set out in Section 2 of this document are based on the anticipated archaeological potential within the area of the proposed works, as assessed at the outline planning stage and set out in the KXC ES.

This document sets out the methodologies which will be followed during the on-site works and during the post-excavation analysis and reporting stages. These will follow the Standards and Code of Practice laid down by the Institute for Archaeologists.

1.7 Museum of London Archaeology

Museum of London Archaeology is a company limited by guarantee registered in England and Wales with company registration number 07751831 and charity registration number 1143574. Registered office: Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED.

2 Objectives of the archaeological work

2.1 General considerations

2.1.1 Watching brief

The purpose of an archaeological watching brief as defined by the Institute for Archaeologists (IfA, 2008) is to

“record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of Conduct, Code of approved practice for the regulation of contractual arrangements in field archaeology, and other relevant by-laws of the Institute for Archaeologists.”

A watching brief is further defined by the Institute for Archaeologists as:

“a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is the possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

This definition and Standard¹ do not include chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains in situ.”

In all cases, a watching brief will be intended:

- *to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works.*
- *to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.*

A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The objective of a watching brief will be intended to establish and make available information about the archaeological resource existing on a site.

¹ Institute for Archaeologists (IfA) 2008a. *Standard and Guidance for an Archaeological watching brief*