AN ARCHAEOLOGICAL WATCHING BRIEF ON PLOT B1, KINGS CROSS CENTRAL, LONDON BOROUGH OF CAMDEN

PCA

KXU10

DECEMBER 2012

PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

Site Name: PLOT B1, KINGS CROSS CENTRAL

Type of project: Watching brief

Quality Control

Pre-Construct Archaeology Limited Project Code			
	Name & Title	Signature	Date
Text Prepared by:	Iain Bright & Guy Thompson		05/12/2012
Text Checked:	Dr F.M.Meddens		05/12/2012
Graphics Prepared by:	Mark Roughly		05/12/2012
Graphics Checked by:	Josephine.Brown	Josephine Brown	05/12/2012
Project Manager Sign-off:	Charlotte Matthews	Charlotte Matthews	05/12/2012

Revision No.	Date	Checked	Approved
1	11/12/2012	Charlotte Matthews	Charlotte Matthews

Pre-Construct Archaeology Ltd
Unit 54
Brockley Cross Business Centre
96 Endwell Road
London
SE4 2PD

AN ARCHAEOLOGICAL WATCHING BRIEF ON PLOT B1, KINGS CROSS CENTRAL, LONDON BOROUGH OF CAMDEN

Local Authority:	**London Borough of Camden**
Site Code:	**KXU10**
Central National Grid Reference:	**TQ 30119 83347**
Written by:	**Iain Bright (MA, AlfA)**
Historical background by:	**Guy Thompson (MA)**
Project Manager:	**Charlotte Matthews**
Post Excavation Manager:	**Dr Frank Meddens (PhD, FSA, MIfA)**
	Pre-Construct Archaeology Limited, December 2012
Commissioning Client:	**King's Cross Central General Partner Ltd**
Report number;	**R11342**

Contractor:	**Pre-Construct Archaeology Ltd** **Unit 54 Brockley Cross Business Centre** **96 Endwell Road** **Brockley** **London** **SE4 2PD**
Tel:	**020 7732 3925**
Fax:	**020 7733 7896**
E-mail:	**cmayo@pre-construct.com**
Web:	**www.pre-construct.com**

Contents

1 Abstract

1.1 This report details the results and working methods of an archaeological watching brief on Plot B1 within Development Zone B, Kings Cross Central, London Borough of Camden (Figure 1).

1.2 The archaeological investigation took place between 10th December 2010 and 16th November 2012. This report complements the results of a strip and map exercise in plots B5 and B6 undertaken in between the 15th August 2011 – 14th October 2011, the details of which have been made available in a separate report (Bright 2012).

1.3 The project was undertaken by Pre-Construct Archaeology Ltd and commissioned by Kings Cross Central General Partner Limited (representing the original applicants for the Kings Cross Central scheme).

1.4 The archaeological watching brief undertaken within Plot B1 comprised the monitoring of ground reduction works and the excavation of 22 trenches/test pits undertaken for geotechnical purposes. The archaeological methodology was designed so as to facilitate archaeological recording in a manner safe for site staff considering the known contamination issues present on site.

1.4.1.1 The underlying geology is understood to consist of London Clay. Preparatory work in the form of made ground deposits to stabilise the ground ahead of the construction of the gasworks structures were observed in various areas across the site. Subsequently some the remains of the earliest set of 6 gasholders were encountering during the watching brief, namely Gasholders 2, 3 & 7 which date to the c. 1822-26. A later phase of enlargement between 1834-49 is represented by the presence of Gasholders 1, “B” and “9”. The remains of one of the latest gasometer’s to be constructed on site, Gasholder 3, were also recorded. Made ground deposits that relate to the construction of the various phases of gasometers were observed in a number of areas/test pits across the site. Later phases of activity encountered include the demolition of Gasholder “B” and the subsequent construction of the Meter House and associated structures; the establishment of the Culross Buildings to the south of the site, beyond the boundary of the gasworks and the construction of the Milk Platform to the rear of them.

2 Introduction

2.1 An archaeological watching brief was undertaken on land occupied by buildings and landscape features that once formed part of the former IGLCC St Pancras Gasworks, Kings Cross, London Borough of Camden (Figure 1) between the 10th of December 2010 and the 16th of November 2012. The aim of the archaeological monitoring exercise was to increase our understanding of the development of the gasworks, gain an insight into the industrial processes that took place there, and investigate its demise.

2.2 The watching brief monitored ground reduction activities within Plot B1 which were designed to remove earlier below ground structures and contaminated deposits in advance of building construction work. Archaeological monitoring was also undertaken on geotechnical test pits being excavated on behalf of the site contractor for ground remediation purposes.

2.3 The work was commissioned by Kings Cross Central General Partner Limited (representing the original applicants of the Kings Cross Central scheme) and was managed by Charlotte Matthews of Pre-Construct Archaeology Ltd. The watching brief was supervised by Tomasz Mazurkiewicz of Pre-Construct Archaeology Ltd. Kim Stabler, of the Greater London Archaeology Advisory Service (GLAAS), monitored the work on behalf of the London Borough of Camden.

2.4 Archival research was carried out by Guy Thompson at the British Library (BL), the Camden Local Studies Library & Archive Centre and the Guildhall Library amongst other places. Historic maps and documents, contemporary accounts, bulletins, newspapers and magazines were consulted. The results of this research are presented throughout the report.

2.5 Development Zone B is bounded to the north and west by Goods Way, by the newly expanded entrance to Kings Cross station to the south and by a National Rail compound to the east. The site forms an irregular, roughly trapezoid shape in plan and is centred at National Grid co-ordinates TQ 30119 83347. It was assigned a unique identifying code, KXU10.

2.6 The redevelopment consists of commercial units and open public spaces. New structures will be built alongside a lengthy boulevard linking Kings Cross Station to Goods Way and the entrance to the new University facilities situated immediately north of Regents Canal.

2.7 The site is not situated within an Archaeological Priority Zone as defined by the London Borough of Camden's Unitary Development Plan (UDP). It is however located within one of the Borough's Conservation Areas (London Borough of Camden, 2006).

2.7.1 All findings included here are to be considered supplementary to those detailed in the assessment report for the archaeological strip and map in Plots B5 & B6 (Bright 2012).

3 Planning Background

3.1 The proposed development of the site is subject to planning guidance and policies contained within the National Planning Policy Framework (NPPF), The London Plan and policies of the London Borough of Hammersmith and Fulham, which fully recognise the importance of the buried heritage for which they are the custodians.

3.2 **Regional Policy: The London Plan**

3.2.1 The London Plan, published July 2011, includes the following policy regarding the historic environment in central London:

> **POLICY 7.8 HERITAGE ASSETS AND ARCHAEOLOGY**
>
> Strategic
>
> A London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account.
>
> B Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the site's archaeology.
>
> Planning decisions
>
> C Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate.
>
> D Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural detail.
>
> E New development should make provision for the protection of archaeological resources, landscapes and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset.
>
> LDF preparation
>
> F Boroughs should, in LDF policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.

3.3 London Borough of Camden Replacement UDP

3.3.1 The Development Plan framework is provided by the Camden Replacement Unitary Development Plan (2006) which states:

> *B8 – ARCHAEOLOGICAL SITES AND MONUMENTS*

1.1.1 A – SITES AND MONUMENTS OF NATIONAL ARCHAEOLOGICAL IMPORTANCE: WHEN CONSIDERING DEVELOPMENT CLOSE TO SITES AND MONUMENTS OF NATIONAL ARCHAEOLOGICAL IMPORTANCE, INCLUDING SCHEDULED ANCIENT MONUMENTS, THE COUNCIL WILL SEEK THE PHYSICAL PRESERVATION OF THE ARCHAEOLOGICAL FEATURES AND THEIR SETTINGS.

1.1.2 B – SITES AND MONUMENTS OF ARCHAEOLOGICAL IMPORTANCE: THE COUNCIL WILL ONLY GRANT CONSENT FOR DEVELOPMENT WHERE ACCEPTABLE MEASURES ARE UNDERTAKEN TO PRESERVE REMAINS OF ARCHAEOLOGICAL IMPORTANCE AND THEIR SETTINGS. DEVELOPERS SHOULD ADOPT MEASURES THAT ALLOW SUCH REMAINS TO BE PERMANENTLY PRESERVED IN SITU. WHERE THIS CANNOT BE ACHIEVED, NO DEVELOPMENT SHALL TAKE PLACE UNTIL SATISFACTORY EXCAVATION AND RECORDING OF THE REMAINS HAS BEEN CARRIED OUT.

3.3.2 Also of relevance is local policy KC11:

KC11 - HERITAGE
THE COUNCIL WILL GRANT PLANNING PERMISSION FOR DEVELOPMENT PROPOSALS FOR THE KING'S CROSS OPPORTUNITY AREA, WHICH SEEK TO ENSURE THAT:
A) PRESERVE LISTED BUILDINGS OR STRUCTURES AND THEIR SETTING
B) PRESERVE OR ENHANCE BUILDINGS. STRUCTURES AND OTHER FEATURES OF CHARACTER AND HISTORIC INTEREST, AND THEIR SETTING, WITHIN THE CONSERVATION AREAS
C) PRESERVE THE REMAINS OF SIGNIFICANT ARCHAEOLOGICAL IMPORTANCE AND THEIR SETTINGS.

3.3.3 In accordance with the Camden Replacement Unitary Development Plan (2006) and local policy KC11, the Outline Planning Permission for the project (granted by Camden Council) stipulated that a programme of archaeological and built heritage recording was required. This is detailed in Outline Planning Permission Condition 56 (Archaeological Investigation and Mitigation), which states:

No development shall take place in relation to each phase of the 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 of 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 minimize damage to them in accordance with the Environmental Impact Assessment, in accordance with the policies policy B8 of the London Borough of Camden Replacement Unitary Development Plan 2006.

3.4 Site Specific Mitigation

3.4.1 Earthworks and remediation works were undertaken as part of the development of Development Zone B. Zone B was broken down into 6 separate plots referred to as B1, B2, B3, B4, B5 and B6, which sat around a new piece of principal public realm referred to as Pancras Square. Reserved Matters applications for buildings B2, B4, B6, the shared zone B basement and the zone B public realm were submitted and approved pursuant to conditions attached to the KXC outline planning permission dated 22 December 2006 (ref: 2004/2307/P), (the 'Outline Planning Permission').

3.4.2 Condition 56 of the Outline Planning Permission 2004/2307/P required a programme of archaeological investigation and recording to be prepared and implemented. Pre-Construct Archaeology Ltd was commissioned to undertake these works. A Written Scheme of Investigation, which relates to archaeological investigation works for Development Zones B and E, was approved by Kim Stabler, English Heritage Greater London Archaeological

Advisory Service on behalf of the Local Planning Authority, Camden Borough Council.

3.4.3 For Development Zones B and E, an Archaeological Watching Brief process was determined to be the appropriate mitigation measure, as identified within the Environmental Statement.

3.4.4 The strategy, allowed for 'early mitigation solutions' and for archaeological excavations, and other investigations as deemed necessary, by a progressively improved understanding of the archaeological resources and asset value determined during the course of development.

3.5 **Plot B1**

3.5.1 In relation to the proposed usage of the site, planning application 2011/4713/P states that the works will comprise:

The erection of a part 9/12/13 storey building, plus basement and basement mezzanine levels, comprising 41,035sqm of office floor space (Class B1) at part lower ground, part upper ground and on first to eleventh floors, 1,000sqm of flexible retail/financial/café/drinking establishment/take away uses (Class A1/A2/A3/A4/A5) at part lower ground and upper ground levels, plant/storage areas and car parking at basement level, Metropolitan Police Office and staff cycle storage at mezzanine basement level, a public bicycle storage facility at part lower ground level with associated roof plant at part tenth and eleventh floors.

4 Geological and Topographic Background

4.1 Geology

4.1.1 The British Geological Survey of England and Wales 1:50,000 scale map of the area (Sheet 256 North London) indicates that the site of Development Zone B is underlain by London Clay. This in turn seals the Woolwich and Reading and Thanet Formations, which sit above Upper Cretaceous Chalk.

4.1.2 Geotechnical investigations undertaken on site prior to enabling works indicated that the upper surface of the London Clay falls consistently in a southwards direction in the Zone B Area from around +18.0m OD to around +16.0m OD. The base of the London Clay/top of the Lambeth Group lies at between -1.5m OD and -4.0m OD, giving a maximum London Clay thickness of approximately 20m (LBH 2009).

4.2 Topography

4.2.1 Prior to the commencement of groundworks, the terrain within Plot B1 varied in nature from scrubland and concrete yards in the north to roads, paved walkways and standing buildings towards the south.

4.2.2 The land slopes down from north to south and from east to west. Towards the north of Plot B1 the highest level recorded on a topographical survey was 20.48m OD, falling to 16.57m OD towards the west, adjacent to Pancras Road. The south part of the site sat on lower ground falling from 18.04m OD on the eastern side to 16.89m OD on the western perimeter.

5 Historical Background

Guy Thompson

5.1 What follows is an overview of the history of the site occupied by Plot B1 with particular reference to the archaeological structures and deposits that were observed therein during the course of the watching brief. As such it important to note that it is by no means a full account of the history of the site or of the gasworks whole. Further historical information can be found in reports pertaining to additional archaeological works located within to Development Zone B.

5.2 The construction of the Imperial Gas Light and Coke Company Pancras Gasworks, 1822-4

5.2.1 The Imperial Gas Light and Coke Company (IGLCC) came into being in July 1821, following an Act in Parliament 'to establish an additional Company for Lighting certain parts of the Metropolis and parts adjacent with Gas' (B/IMP/GLC/1: 02/07/1821). The new company committed to supply gas to a district on the north side of the Thames extending from Pimlico in the west to Whitechapel in the east, which was subdivided into Western, North-Western and Northern sub-sectors (*ibid*: 31/08/1821; Everard, 1992: 157).[1] Having proposed to establish a gasworks in each sector, a committee of directors was appointed to identify potential locations that were readily accessible by water; either via the Thames (in the case of the Western works) or the Regent's Canal for the North-Western and Northern works. In September of that year locations on the banks of the Regent's Canal at St Pancras and Shoreditch were earmarked for the North-Western and Northern sector gasworks, and the committee was authorised to open negotiations with local landowners for the acquisition of both sites (B/IMP/GLC/1: 07/09/1821).

5.2.2 In October 1821 the directors offered to purchase a plot of land on the south bank of the Regent's Canal westward of the Maiden Lane Bridge from the Governors of St Bartholomew's Hospital (*ibid*: 12/10/1821; Figure 3). The hospital consented to the sale early the following year, shortly after which the gas company made separate arrangements with the parish of St Pancras for the purchase of an adjacent plot (*ibid*: 15/02/22, 26/02/1822). The site proposed for the new works earned the approval of Sir William Congreve, the Inspector of Gas Light Works who proclaimed it "the most proper situation... for the erection of Works for the Manufacturing of Gas" when he visited in May 1822 (*ibid*: 17/05/1822).

5.2.3 In August 1822 the directors approved tenders submitted by Messrs Ward and Son and Samuel Walker for the construction of buildings and iron roofs at the St Pancras site (*ibid*: 02/08/1822; 09/08/1822). In a report issued to shareholders later that month, the directors admitted that the works at St Pancras had been "delayed by various circumstances", which were exacerbated further by the unwelcome attentions of the local landowner William Agar, over whose land contractors were obliged to cross in order to gain access to the site of the

[1] The Northern sector was subsequently split into separate North-Eastern and Eastern areas

new works (*ibid*: 01/11/1822).

5.2.4 The development of the St Pancras gasworks gained renewed momentum in May 1823, when the tenders of William and John Whitehead and Thomas Souter for the construction of the main buildings were accepted and contracts were drawn up soon afterwards (B/IMP/GLC/1: 30/05/1823). The contract for the excavation of the first six[2] gasholder tanks at Pancras was awarded to Peter Anderton early the following month, while contracts also went to Messrs Grazebrook and Son for retorts and Samuel Walker & Co for the iron roof and chimney shaft for the first retort house (*ibid*: 06/06/1823; 04/07/1823).[3] On Thursday 24th July Sir William Congreve laid the foundation stone of the retort house in front of a crowd which included the Directors, Thomas Souter the builder and Francis Edwards, the architect of the works (*ibid*: 24/07/1824).

5.2.5 Less than three months after the stone-laying ceremony, the first gasholder to be completed at the Pancras works entered service on 16th October, when it was filled with gas via the main from the recently completed Shoreditch works (LMA B/IMP/GLC/2: 17/10/1823). At the beginning of February 1824 a ceremony took place at St Pancras to mark the completion of the 'indent', a short branch of the canal known subsequently as the Gasworks Basin, which enabled barges to deposit cargoes of coal on a wharf adjacent to the retort house (*ibid*: 30/01/1824). The Pancras works entered service towards the end of August, following a formal opening ceremony on 25th August attended by Sir William Congreve (LMA B/IMP/GLC/2: 27/08/1824).

5.2.6 When complete the gasworks at St Pancras was equipped with a single retort house, an engine house and only six gasholders (LMA B/IMP/GLC/3: 03/03/1826). A map of the capital surveyed by the Greenwood brothers in the mid-1820s and published in 1830 indicates that the first six gasholders stood in two rows of three holders aligned north-south in the north-west corner of the site, some distance to the west of the main complex (Figure 4).

5.3 The Pancras Gasworks during the 1830s and 1840s

5.3.1 A map surveyed by B.R. Davies and published by Edward Stanford in 1834 shows an arrangement of twelve gasholders and two retort houses at the Pancras works (Figure 5). While Davies' map is somewhat schematic, it suggests that no major additions had been made to the site since the completion of the second phase of works in the late 1820s.

5.3.2 As the rate of urban and suburban development in and around the capital accelerated during the following decade, the market for gas light continued to grow, although demand remained subdued as a consequence of the preference of suppliers to establish local monopolies by

[2] Confirmation that the works initially had six gasholders is provided by a reference in Directors' minutes to a report dated 7th March 1827, which reported that the second group of six gasholders (first proposed on 25th March 1825) had been completed, bringing the total number of holders at the Pancras works to twelve (LMA B/IMP/GLC/3; LMA B/IMP/GLC/4).

[3] Confirmation that there was initially only one retort house at the Pancras works is given by board minutes dated 25th March 1825 (LMA B/IMP/GLC 3) and 7th March 1827 (LMA B/IMP/GLC/4).

means of negotiating agreements with potential rivals. These anti-competitive practices came to an end in the early 1830s, when established suppliers were confronted by a number of new competitors who were not prepared to be bought-off by monopolistic districting agreements (Everard 1992: 170-171). The Imperial responded by cutting its own gas prices, fuelling public demand for cheaper gas. As demand increased during the 1830s and early 1840s, the Pancras and Fulham works were both enlarged under the auspices of John Kirkham, the company's Chief Engineer since 1830 (*ibid*: 174).

5.3.3 The decision to increase production at St Pancras necessitated the enlargement of the station's gas storage capacity. While Davies' map of 1834 shows twelve holders of equal circumference neatly arranged in three parallel rows of four holders, a plan surveyed for the Great Northern Railway (GNR) company in 1849 shows a total of thirteen holders of at least four different dimensions, only eight of which appeared to be the same structures depicted by Davies (Figure 6). The GNR plan indicates that the large gasholders located in the western area of the site described by later documents and maps as holder nos. 1 and 9 had been completed by 1849, the latter holder apparently replacing one or two of the original 50' holders. Both of the new holders were 90' high (Goad Fire Insurance Plan, 1891, Figure 9). The same plan showed that a second holder had been erected close to the southern boundary of the works, a short distance to the west of the southernmost of the 1820s retort houses.

5.4 The enlargement of gas storage capacity at the Pancras Gasworks during the 1850s

5.4.1 The Imperial was quick to spot the commercial opportunities presented by the arrival of the Great Northern Railway at King's Cross in 1850. In early May of that year the gas company tendered to provide lighting for the premises of the Great Northern at Maiden Lane, where construction of the King's Cross Goods Station and the Temporary Passenger Station was well underway (LMA B/IMP/GLC/62: 08/05/1850). The success of both the Great Northern Goods and Passenger Stations at King's Cross during the early 1850s stimulated the local economy of the St Pancras district and accelerated the rate at which new residential streets were laid out in the northern district.

5.4.2 In February of each year the Chief Engineer of the Imperial prepared forecasts of annual demand over the forthcoming twelve months, together with estimates for the expenditure necessary to meet it. At the end of February 1852 Kirkham proposed to build a new gasholder at the Pancras Works, 120' in diameter and 36' high, to be accommodated in a brick-built tank measuring 123' by 37½', for an estimated outlay of £11,355 (LMA B/IMP/GLC/63: 25/02/1852). Even more ambitious plans for the enlargement of the Fulham works were proposed at the same time, including the provision of a new telescopic gasholder measuring 157' in diameter and 42' in depth, the construction of a new retort house and coal store and the purchase of new purifiers and exhausters (*ibid:* 25/02/1852, 06/03/1852). The

Committee of Works decided against the enlargement of capacity at Pancras in favour of enlarging the Fulham works, which may have had greater scope for expansion than the much larger, but increasingly crowded works at St Pancras.[4]

5.4.3 Contracts for the construction of the new tank and holder at Fulham were awarded to George Myers[5] and Westwood and Wright[6] respectively the following month, although the completion of both elements was dogged with problems and the holder did not enter service until April 1853 (LMA B/IMP/GLC/63: 20/04/1853). The failure to complete the Fulham holder in time for the winter forced the Committee for Works to consider means by which the shortfall in supply could be met, whilst relieving the demand on the Pancras works, which remained by far the largest of the company's stations.[7] It was therefore decided to erect a number of temporary additional retorts at Pancras and Shoreditch, in order to manufacture the gas necessary to meet anticipated demand (*ibid*: 30/10/1852, 10/11/1852).

5.4.4 In contrast to the debacle over the Fulham gasholder the previous year, the erection of a new tank and telescopic gasholder at the company's Bethnal Green holder station in 1853 passed without major incident, the holder entering service several weeks before the Christmas deadline for its completion (*ibid*: 03/12/1853; 10/12/1853). However by the beginning of 1854 it had become apparent that demand for gas in the northern district was such that it had again become necessary to enlarge holder capacity at St Pancras.

5.5 The troubled construction of Gasholder No. 3, 1854

5.5.1 At the beginning of February 1854 David Methven (who had been appointed acting Engineer at St Pancras following Kirkham's resignation in November 1852) proposed to replace two of the original 50' diameter gasholders (nos. 2 and 3) with a single telescopic holder, 50' high when full, with a tank measuring 118' in diameter and 25' deep (LMA B/IMP/GLC/64: 01/02/1854).[8] Just over a month later the contract for the construction of the tank was awarded to John Jay, while Westwood and Wright were invited to tendering for the fabrication and installation of the gasholder (*ibid*: 08/03/1854).

5.5.2 Before Jay's men could begin building the tank it was necessary to clear the old holders and associated pipe work, which meant that groundwork did not commence until early April (*ibid*: 29/03/1854; 05/04/1854). By the third week of the month Methven was able to report that Jay's men were making "very satisfactory" progress; the brick wall of the tank having already reached a height of 9' (*ibid*: 24/04/1854). Three weeks later however, Methven informed the

[4] The Pancras works remained the largest in the capital until the Beckton gasworks was built by the Gas Light and Coke Company in 1869 (Stewart, 1957: 72).
[5] George Myers, building contractors of Ordnance Wharf, Belvedere Road, Lambeth.
[6] Westwood and Wright of the Hope Foundry, Brierley Hill, Staffordshire and Queen's Cross, Dudley, Worcestershire, were the leading suppliers of cast iron gasholders, tripods and frames for much of the second half of the 19th century.
[7] In October 1852 the Pancras works had a storage capacity of 1,353,000 cubic feet of gas, compared with 656,000 cubic feet at the Shoreditch works and 681,000 cubic feet at Fulham (LMA B/IMP GLC/63: 30/10/1852).
[8] Methven had returned to his post of Assistant Engineer following the appointment of Joseph Clark as Engineer in 1853 (LMA B/IMP/GLC/64).

Works Committee that the natural clay inside the smaller of the two old tanks, which was to have been retained in order to form part of the cone/dumpling of the new tank was of such "a slippery and deceptive nature" that the brickwork of the old tank had to be removed and replaced with a timber framework to support the centre of the new holder (*ibid*: 10/05/1854).

5.5.3 In mid-May Methven reported that the wall of the new tank had been forced inward at the point where the new and old tanks intersected by the weight of the clay puddle behind the wall of one of the old tanks (*ibid*: 17/05/1854). The wall had been forced in to a depth of 3½'', therefore necessitating the reduction of the diameter of the gasholder by at least 3'' (*ibid*). At the end of the month Methven reported that the wall had buckled at another location (*ibid*: 31/05/1854). Jay maintained that the tank wall had buckled because its construction had been rushed in order to meet the deadline for completion specified by the gas company, with the result that insufficient time had been allowed for the mortar to set (*ibid*: 07/06/1854).

5.5.4 Despite these problems, Methven remained convinced that the tank would be completed by the middle of June, enabling Westwood and Wright's men to take possession of the site immediately thereafter (*ibid*: 14/06/1854). Unfortunately, the first delivery of ironwork for the new gasholder arrived nearly a month late, an early indication of the problems that would follow (*ibid*: 19/07/1854). Owing to the continuing lack of progress on site by the middle of August, Methven travelled to Dudley to persuade Thomas Wright to expedite the contract without further delay (*ibid*: 16/09/1854). On his return to the capital, Methven reported that he had discovered that while fabrication of the gasholder components was "in a very forward state", the foundry contracted by Westwood and Wright to cast the column parts had not even started the casting process, which was not expected to commence until late October (*ibid*: 19/08/1854).

5.5.5 Having been summoned to London to explain the delays in person, Thomas Wright informed his clients that he had taken the patterns of the column and tripod components out of the hands of Bennett and Co, the West Bromwich foundry subcontracted to cast the holder frame, and had contracted a Mr Heywood of Derby to manufacture and deliver the frame parts in three weeks (*ibid*: 23/08/1854). Shortly after the column parts started arriving on site it became apparent that a significant number of the "top parts" of them had been cast in a "rough and deficient manner" and had to be returned to the manufacturer (*ibid*: 11/10/1854; 25/10/1854). In order to ensure that the gas company could meet its obligations to its customers over the coming winter, Methven proposed that the columns be built to two-thirds of their full height, allowing the holder to be brought into use quickly; the top third of the columns could be completed at a later date (*ibid:* 25/10/1854). Wright's men managed to meet the revised deadline and the holder entered service on Monday 6th November, albeit with a much reduced capacity of 320,000 cubic feet (*ibid*: 08/11/1854). It subsequently turned out that Westwood and Wright had not subcontracted the casting of the columns to Mr Heywood of Derby as Wright had maintained (possibly James Haywood's Phoenix Foundry; *Freebody's Derby Directory*, 1852: 115), but had instead allowed Bennett and Co to cast the parts themselves (LMA B/IMP/GLC/65: 11/11/1854). Two month later, Westwood and Wright were ordered to return to St Pancras in order to complete the columns "without unavoidable

delay" (*ibid*: 17/01/1855).

5.6 The merger of the Chartered and Imperial Gas Light and Coke Companies, 1876

5.6.1 Following several decades of often fractious co-existence, London's gas companies embarked upon a series of mergers in the 1870s that were to have a lasting effect upon the public supply of gas in the capital. The initial catalyst for the mergers of the early 1870s was the completion of the Chartered Company's new gasworks at a site on Barking Creek named Beckton, in honour of the company's Governor, Simon Adams Beck. The Beckton works was to become the world's largest, enabling the Chartered to become a force with which its smaller rivals were simply unable to compete. In April 1870 the Chartered amalgamated with the City Gas Co, followed within the space of eight months by the Great Central Co. and the Victoria Docks Gas Co. (Everard 1992: 237-241). While the technologically advanced works at Beckton proved to be a success for the Chartered, the Imperial, which represented the Chartered's principal competitor in the capital, was encumbered with a number of increasingly outdated works, in addition to the vastly expensive new works at Bromley-by-Bow. Since its inception at the end of the 1860s the Bromley gasworks had been dogged by problems; its design was obsolescent, its location was too remote from the Thames and by 1875 it had cost the company nearly £300,000 and yet was still nowhere near completion (*ibid*: 246).

5.6.2 Having been saddled with the potential white elephant at Bromley, the Imperial promoted a bill in Parliament in early 1875 for amalgamation with the Independent Gas Company (*ibid*). In response Parliament, abetted by the Corporation of London and the Metropolitan Board of Works, made the introduction of a sliding scale of prices for gas consumers a condition of the merger (*ibid*: 247). The sliding scale proposed by Parliament threatened to punish suppliers who raised prices by reducing the dividend to their shareholders, which proved unacceptable to the Imperial, thereby killing-off the planned merger (*ibid*). Later that year both the Imperial and the Independent Companies were persuaded to merge with the Chartered, which was prepared to accept the sliding scale as the price for control of its for competitors. The amalgamation of the companies in March 1876 created the Gas Light and Coke Company (GLCC), the principal gas supplier in the northern half of the capital until nationalisation in 1949.

5.7 The Culross Buildings, the Suburban Station & the Milk Platform *c.*1891 – *c.*1948

5.7.1 Owing to the continuing demand for additional passenger accommodation at King's Cross, the Board of the GNR discussed new proposals to enlarge the King's Cross Passenger Terminus in May 1889 (TNA RAIL 236/52: 29). It was subsequently decided to rebuild the northern end of the departures platform, to establish a subway connection between this and the Suburban Station, and to build new goods sidings for milk traffic to the west of the latter, necessitating the absorption of the adjacent roads into the perimeter of the enlarged terminus.

5.7.2 Since the Company was obliged by recent legislation to provide permanent accommodation for those displaced by the planned demolitions, at the end of 1890 Richard Johnson (GNR Chief Engineer) visited a number of modern "model lodging houses" in London in order to

better understand the principles of contemporary tenement design (TNA RAIL 236/364/3, 06/09/1891). Johnson inspected recently completed tenement blocks at York Road, Gray's Inn Road and Fieldgate Street, Whitechapel, the latter built by the Great Eastern Railway Company (GER) in order to accommodate railway workers displaced by the widening of Liverpool Street Station (ibid). Having considered the design of these buildings, Johnson submitted a set of sketch plans of the proposed new development to the Way and Works Committee in early January (ibid). Johnson proposed to build 40 new tenements (replacing the 24 houses that still stood in the former Drakefield Estate), of which 24 would contain four rooms and the remaining 16 would have two. Johnson designed the blocks with a view to maximise the privacy of residents by minimising the number of shared facilities. To this end he proposed that the occupants of each tenement would have their own scullery, pantry, coal store and WC, while communal facilities would be limited to a shaft for dust and cinders on each landing and a flat roof for drying laundry. The design was also influenced by safety considerations; the block was to be built with five staircases 'so as to provide good exits in case of accident' (ibid). The Way and Works Committee recommended that Johnson's proposals be approved, shortly after which the Board sanctioned expenditure of £11,000 to build the new blocks (TNA RAIL 236/53: 9).

5.7.3 The Contract for the construction of the new dwellings was awarded to William Upton Atherton and John Dolman (trading as Atherton & Latta) of Crisp Street, Poplar in February 1891 for £12,440 (TNA RAIL 236/519, Contract 23/02/1891; Estimate: 53). Work was due to be completed within six months of commencement (TNA RAIL 236/519, Specification, Bills of Quantities & Tender: 12). Though the set of seven drawings (which included all floor plans, elevations and sections and detail drawings of staircases, floors and scullery fittings) that originally accompanied the Specification have not been located during the course of this research, the latter document provides a detailed account of the method of construction and an inventory of materials to be used.

5.7.4 Before construction was to commence, the building contractors were instructed to grub up and clear away the foundations of the former Suffolk Street houses, to remove any drains and cesspits and to "cut out any soft places on site and fill the same with concrete" (ibid: 25). Owing to the pressing need to accommodate displaced residents, construction of the new building was to take place in two phases: the first portion of which was to be built before "the old dwelling at [the] back" (which was still inhabited) could be taken down, following which construction of the second phase could begin (TNA RAIL 236/519, Estimate: 8).

5.7.5 The basement of the new building was to be dug to a depth of 10' 3'' (ibid, Estimate: 12), while foundations were to be of concrete, consisting of one part Portland cement to six parts Thames Ballast or four parts broken stone and two of clean sharp sand (ibid: 21). Concrete floors were to be made up from six parts coke breeze to one part Portland cement. All brickwork was to be laid in English bond, using "good hard well-burnt stocks", while the "blue brick facing to [the] plinth next Road" (i.e. at ground level) was to be constructed of best quality Staffordshire Blue Bricks (ibid: 21). It was also intended to pave the basement floor with Staffordshire Blue Bricks, laid on edge on 6'' of concrete, though the latter arrangement

was provisional (ibid: 33).

5.7.6 Central to the design of the new building were the open-fronted staircases to each section, which were to be formed in concrete, laid with 2'' thick Wilkes Patent granite paving (ibid: 32). The stone steps leading to the staircases were to be fashioned from 'Silex Brand' York stone obtained from Messrs Joseph Brooke & Sons of Halifax (ibid: 23), while the staircases themselves were to be faced with best quality white glazed bricks (ibid: 30), which were to be obtained from Messrs Joseph Cliff & Son of Wortley near Leeds (ibid: 21). Scullery walls were also faced with the same white glazed bricks (ibid: 30).

5.7.7 Timber was to be "the best Crown Memel, Christiania, Archangel or St Petersburg" or English Oak (ibid: 24). Timber sash windows were to be fitted throughout (ibid: 36). Entrance doors to each tenement were to be 2'' thick, as were the doors to the Dust Cellars, the inside face of which was to be covered with ⅛'' galvanised sheet iron, while internal doors were to be 1¾'' thick (ibid: 5-36). The coal bunker was also to be formed of timber, lined with ⅛'' sheet iron (ibid: 37).

5.7.8 York stone was to be used for the chimney pieces in living rooms (ibid: 30). Hard Derbyshire or York stone was to be used for coping and cornices (ibid: 22), including the stone cornice at roof level which was to be surmounted by a continuous rail constructed of 2½'' x ½'' wrought iron bars secured by 36 hold-down bolts (ibid: 40). In order that residents could make use of the flat roofs of the new buildings to dry laundry, the specification also prescribed that the iron railing would "have stays down the back of wall about 6' apart… to take clothes lines… with rings riveted to same" (ibid).

5.7.9 Further ironwork included the wrought iron balustrades to the external half-landings and cast-iron covers for the dust shoots (ash-disposal chutes) that served each landing (ibid). Messrs Steel and Garland of the Wharncliffe Works, Sheffield supplied both the cast iron mantel registers fitted to the bedroom fireplaces and the ranges in each living room (ibid: 42).

5.7.10 The flat roof of the building was to be covered "in Seyssel asphalt, 1'' thick bedded in bratticed cloth or felt, with falls to channels" (ibid: 32). The contractors were instructed to take particular care that the asphalt "was left perfectly watertight" (ibid). Equal care to ensure a watertight fit was required of the zinc worker, who was instructed to cover the flat roofs over the staircases with "No. 16 gauge Vielle Montagne Company's zinc, to be procured from Messrs Braby & Co. of Euston Road" (ibid: 43).

5.7.11 Though work on the new buildings was scheduled to commence shortly after the contract was awarded in February, the construction process was hindered by a series of disputes and delays. Johnson's proposal that the blocks were to be built to a height of 45' was opposed by the LCC (London County Council) Architect, who recommended that the completed buildings should be no more than 40' high. Johnson was determined that they be built to his original specification, and the resulting impasse does not appear to have been resolved until the beginning of May (TNA RAIL 236/53: 114). The contractors commenced work the same month, regaining some of the momentum that had been lost by the earlier postponement. At the end of June Johnson reported that good progress had been made at the east end of the block, which was being built first in order to accommodate the remaining residents of the

Drakefield Estate, whose houses were to be pulled down in order to clear the site of the proposed new engine shed for the Passenger Terminus (TNA RAIL 236/370/9, 30/06/1891). Despite the promising start, construction was interrupted that summer by the Carpenters' Strike, which had begun in London that May (Shepherd, 1975: 220-227). At the end of September Johnson reported that the strike had caused the contractors "a good deal of difficulty", but that arrangements were in place to accelerate the construction process (TNA RAIL 236/370/9, 25/09/1891). Though the strike ended the following month, heavy rainfall during October added to the contractors' woes (ibid, 30/10/1891). Johnson aimed to have the eastern end of the buildings ready for occupation by early December, though this target was subsequently pushed back to the end of the year (ibid, 28/11/1891). The pace of construction appears to have accelerated during the winter months, such that Johnson was able to report that the entire development was "rapidly nearing completion" at the end of January (TNA RAIL 236/364/3, 26/01/1892). By the latter date the two easternmost blocks were already occupied, while the western block was scheduled for completion early the following month. Work was also under way on the basement at the end of January, which was being fitted out as workshops for the company's gas and signal fitters (ibid).

5.7.12 It was intended that the new flats were to be occupied mainly by GNR staff, and it was proposed to charge tenants rents between 7s/6d (37½p) and 8s/6d (42½p) per week for the larger dwellings, which were to be allocated "according to position", while smaller units were to be let for weekly rents of between 4s/0d (20p) and 5s/0d (25p) (TNA RAIL 236/53: 322). It was also decided to appoint a resident Caretaker, who would live in one of the smaller apartments, rent-free (ibid). In order to give the new dwellings a distinctive postal address, the Board of Directors resolved to name them 'Culross Buildings', in honour of Lord Colville of Culross, then Chairman of the Board.

5.7.13 Returns from the 1901 census suggest that the new dwellings were a considerable improvement upon those that had preceded them (TNA RG 13/148 Folio 86-89). The population density had fallen considerably since 1871, when a total of 304 people had occupied the 24 houses in Suffolk Street West. The 40 flats at the Culross Buildings provided accommodation for 174 residents, of whom 106 were adults of 16 or over. Of these, nearly 60% were male, 67% of who worked for the Company (including the Caretaker, who lived at Flat 25). Nearly 7% of the adult female occupants were also employed by the GNR.

5.8 The last years of the GLCC Pancras Gasworks, 1891-1904

5.8.1 The Goad Fire Insurance plan of February 1891 and the Second Edition Ordnance Survey map of 1896 showed the Pancras works in its final form, only a few years before it was closed (Figures 9 & 10). By that date St Pancras had long since lost its title as the largest gasworks in London, eclipsed both by Beckton and by the works at Bromley-by-Bow, the performance of which had improved considerably following the opening of Beckton pier in 1880 (Unknown, Coke & Gas, 1955: 338).

5.8.2 In 1903 the GLCC decided to modernise the coal handling facilities at the Bromley-by-Bow works in order to allow the barges that brought coal to the works from Beckton pier to carry

even larger loads (Coke & Gas 1955: 339). As the company continued to concentrate production at Beckton and Bromley, it began to question the viability of the St Pancras works, which was inaccessible to large barges, let alone the colliers that brought coal to London from the north-east (LMA B/GLCC/126: 28/05/1903). Having decided against reconstructing the works "on modern principles", in December of that year, the Directors decided to close the works "as an experiment" at the end of the following January and to transfer gas production to Beckton (LMA B/GLCC/126: 18/12/1903; TNA RAIL 783/110: Grinling to Bury, 22/01/1904). Notice of the imminent closure was given to the workforce in early January 1904, with production ceasing during the first week of February (LMA B/GLCC/126: 04/02/1904).

5.8.3 Following the cessation of gas production the GLCC continued to retain a skeleton workforce of 65 men at St Pancras, some of whom were involved in the manufacture of base stones for gas stoves in one of the disused retort houses (ibid: 04/02/1904; Everard, 1949: 301). The ultimate fate of the works remained undecided in January 1908, when the Great Northern expressed an interest in acquiring the site, which contained sufficient space to accommodate either a new set of coal drops or an additional carriage shed (TNA RAIL 783/110: Ross to Brickwell, 25/07/1910).

5.8.4 In July 1910 David Milne-Watson, General Manager of the GLCC, confirmed that the company was prepared to sell 5½ acres of the gasworks site to the Great Northern, whilst retaining Gasholder Nos. 1, 3, 8 and 9 as a standalone holder station (ibid: Milne-Watson to Bury, 20/07/1910). The GLCC was prepared to accept as little as £55,000 for the site, provided that the Great Northern paid for the removal of the mains and for the erection of a 10' brick boundary wall around the western perimeter of the vacated site, which would serve as the boundary wall for the holder station (ibid: Brickwell to BoD, 20/10/1910; 01/11/1911). The majority of the former gasworks was in the possession of the railway company by April 1911, while the holder station wall had been built by the beginning of November that year.

5.9 The construction of Goods Way 1913-1921

5.9.1 The acquisition of the disused gasworks presented the Great Northern with an opportunity to create an entirely new road route that would improve access to the Goods Yard from both Pancras Road and York Road. An application was made to Parliament to seek powers to build the new road, authorisation for which was granted by the Great Northern Act of 1913 (TNA RAIL 1189/1423; TNA RAIL 1189/1428, Brickwell to Directors, 31/10/1917).

5.9.2 The contract for the construction of Goods Way was awarded to Sir Robert McAlpine & Son, and it was reported that preparatory work had commenced by late July 1919 (TNA RAIL 1189/1427: 24/07/1919). By November 1919 negotiations regarding the course of the road in the vicinity of the Cambridge Street Coal Drops were still in progress, while plans to embed a 24'' gas main within the south carriageway of the new road between the gasholder station on Wharf Road and the mains in York Road were only approved in December (TNA RAIL 1189/1432: Lacey to Brown, 19/12/1919). The new road had been completed by April 1921, when the Borough Engineer of St Pancras certified that it had been finished to his satisfaction (TNA RAIL 1189/1425: Brickwell 14/04/1921).

5.9.3 Gasholder Nos. 1, 3, 8 and 9 were still in use when the Goad Insurance plan of the King's Cross Goods Yard was updated in January 1921 (Figure 12). The plan also indicated that while the purifiers in the north-east corner of the site had long since been demolished, the adjacent material and meter houses had been retained. A valve house shown on the north-west side of the site by the Goad 1891 map had also been retained, while the complex of buildings in the south-west corner (the location of the old superintendent's house) also survived. A material house also shown on the 1891 map that stood adjacent to the south boundary wall had survived, although the adjacent purifier block had been demolished in order to make way for the range of stables built for the Great Northern that marked the eastern boundary of the holder station. These stables had been completed by January 1917 and were subsequently extended by Cottinghams Ltd the following year (TNA RAIL 1189/1429: GNR Police Dept Report, 11/07/1918). The north-west and west boundaries were defined by Wharf Road/Goods Way, while the south-eastern boundary was defined by the north side of Battlebridge Road.

5.10 **The St Pancras Holder Station, 1921-1948**

5.10.1 As the gas industry found itself embroiled in a battle for customers with the electricity supply industry in the 1920s and 1930s, the GLCC absorbed a number of smaller gas suppliers serving the expanding suburbs on the eastern and western peripheries of the capital (Everard, 1992: 326-329). In order to survive in this increasingly competitive environment, the company embarked upon a programme of enlarging those works that could be developed to produce the cheapest gas, while closing smaller, less-efficient works (*ibid*: 333-335). At the same time new types of gasholders began to enter service in the United Kingdom, including the distinctive waterless type, which had been developed in Germany (*ibid*: 335). Waterless holders were built by the company in the Greater London area at Brentford, Staines, Woodford, Southall, Kensal Green, Harrow and Battersea, the last of which had a capacity of 8,000,000 cubic feet of gas (*ibid*: 336).

5.10.2 The St Pancras holder station appears to have remained unaffected by the company's programme to increase holder capacity, and a Goad fire insurance plan of 1942 suggested that it appeared much the same as it had in the early 1920s (Figure 13). Of the changes that had taken place during the intervening two decades, a small rectangular structure had been built abutting the north boundary wall of the holder station; this was labelled 'CORR', which indicated that the building had a corrugated iron roof. A structure of unidentified function had been added to the east end of the nearby material house; the goad plan indicated that this building was open to the elements on its south and east sides, presumably at ground floor level. A small chimney appears to have been added at the west end of the material house.

5.10.3 During the Second World War all of the GLCC's London gasworks were damaged by enemy bombing (Falkus, 1988: 13). During the first air raid of the Blitz on 7th September 1940, the company's gasworks at Beckton, Bromley-by-Bow and Bow Common were all temporarily put out of action, with bombs falling on each of Beckton's ten holders (*ibid*). Although North London escaped the worst effects of the Luftwaffe aerial bombardment, the King's Cross

district was fairly heavily bombed, with the residential streets on the east side of York Way the worst affected. The goods and passenger termini at King's Cross and St Pancras also suffered extensive bomb damage, which included the destruction of the western offices of King's Cross Passenger Station in 1940 (Brooksbank, 2007) Closer to the St Pancras gasholder station, a V1 Flying Bomb landed on the LMS Coal Depot in Purchese Street in August 1944, inflicting extensive blast damage upon surrounding buildings (TNA HO 198/92, 14/08/1944). Although a London County Council Bomb Damage map compiled after the war suggested that the St Pancras and Agar Town holder stations survived the war largely intact, it is possible that holders 1 and 9 were damaged during the conflict.

5.11 **The St Pancras Holder Station, 1949-present**

5.11.1 The British gas industry was nationalised with effect from 1st May 1949 with the creation of twelve Area Gas Boards, each responsible for the production and distribution of gas within their territory. The North Thames Gas Board was formed from twelve separate independent undertakings, of which the Gas Light & Coke Company was the largest by some margin (Falkus, 1988: 3, 18). From its inception the Board embarked upon a programme of concentrating production in the most efficient plants, while closing down smaller works (*ibid*: 53). By the end of the 1950s three-quarters of the Board's production capacity was accounted for by the works at Beckton, Bromley, Fulham, Nine Elms and Southall.

5.11.2 An Ordnance Survey map of the area published in the mid-1950s depicted Gasholder Nos. 1 and 9 in outline only, suggesting that their frames may have been removed by that date (Figure 14). Both holders 3 and 8 remained in use, storing gas manufactured elsewhere in the district. All of the structures adjacent to the north boundary wall shown on the 1942 Goad plan survived, although a boiler had been installed in the north-east corner of holder station. The complex of buildings in the south-west corner of the site, several of which appear to have dated to the 1820s had been largely cleared, having been replaced with newly built properties at nos. 1 to 4 Goods Way. An aerial photograph of the King's Cross district taken in 1957 confirmed that the columns of holders 1 and 9 had been taken down, leaving the tanks intact. The tank of no. 9 was apparently filled with water, while no. 1 appeared to retain its deflated bell. The single-storey valve house close to the eastern boundary of the site survived the removal of the holders, as did the larger meter and material houses adjacent to the north boundary.

5.11.3 Surveyed six years after the Aerofilms aerial photograph was taken, the Ordnance Survey map reproduced here as Figure 15 indicated that the majority of the buildings on the north and west sides of the site had been demolished and the area cleared, leaving only the small building of unknown function to the north of Gasholder 8.

5.11.4 The 1960s saw a series of significant developments in the gas industry that had a significant impact upon the North Thames Board's operations. The high price of coal allied to technological developments had led to the marginalisation of coal carbonisation in favour of increased investment in direct oil gasification, whereby gas was manufactured from oil (*ibid*: 62-65). By 1968 85% of all gas produced by the North Thames Board was manufactured by

oil gasification and oil reforming plants; within two years the Board had ceased production of town gas from coal carbonisation altogether (*ibid*: 67). The advent of oil gasification was swiftly followed by the introduction of 'natural' North Sea gas, extraction of which began in the mid-1960s. Conversion of meters and domestic appliances to work with natural gas began in the North Thames Region in 1968; the process was completed and the last manufacturing gasworks (Romford) closed down in August 1976 (*ibid*: 131).

5.11.5 In the middle of the 1960s a programme was launched to construct a new high pressure distribution network in order to meet rising demand and to maintain supplies to London. The result was the 30" North Orbital high pressure pipeline.

5.11.6 The completion of the conversion programme in 1976 allowed North Thames Gas (a Region of British Gas since 1973) to rationalise its extensive property holdings and renew its distribution system. All but two of the huge interwar waterless gasholders were dismantled in the mid-1980s (*ibid*: 199). The St Pancras holders, however continued to be used for gas storage and in 1978 they were renovated and repainted in vermillion, black and white, a paint scheme chosen to reflect their Imperial Gas Light & Coke Company origins (*ibid*: 206).

6 Archaeological Methodology & Objectives

6.1 General Considerations

6.1.1 In accordance with the Written Scheme of Investigation (Matthews 2011) a watching brief was conducted during the excavation of geotechnical test pits and the reduction of ground as preparatory works for the development of Zone B, Kings Cross Central, London Borough of Camden.

6.1.2 The purpose of the archaeological monitoring of the groundworks was to facilitate, where necessary, appropriate investigation and recording of any remains found at the site. The exercise was also designed to afford an opportunity to investigate and record structures associated with the gasworks, in particular the gasometers and associated structures, in advance of invasive groundworks pertaining to the new development.

6.1.3 This report covers the findings made during the monitoring of groundworks and geotechnical pits specifically within Plot B1. A total of 22 trenches/test pits were excavated and recorded, the details of which are tabulated below;

Trench/Test Pit No.	Length	Width	Total Depth	OD Height at top
2019	3.70m	1.40m	1.20m	17.50m OD
2021	6.80m	3.20m	4.50m	18.10m OD
2022	4.40m	3.30m	3.50m	19.51m OD
2026	3.60m	1.80m	2.50m	18.52m OD
D14	1.50m	1.20m	4.00m	16.86m OD
E12	5.00m	1.20m	4.00m	20.54m OD
F11	4.00m	1.20m	4.00m	20.77m OD
D12	5.00m	1.20m	4.00m	20.41m OD
F12	2.00m	1.20m	3.20m	20.88m OD
F14	4.20m	1.00m	4.20m	20.16m OD
J15	4.00m	1.20m	3.90m	20.43m OD
G13	4.80m	1.50m	4.00m	20.47m OD
H13	3.50m	1.60m	4.00m	20.42m OD
G12	3.00m	1.50m	4.00m	17.16m OD
E13	7.00m	3.00m	3.00m	17.33m OD
D15	4.00m	1.20m	2.56m	17.14m OD
F17	4.00m	1.20m	4.30m	17.92m OD
E14	4.00m	2.00m	17.12m	17.12m OD
F18	4.20m	1.20m	4.00m	17.50m OD
19	5.50m	5.25m	1.40m	18.41m OD
23	15.40m	14.35m	4.00m	17.81m OD
24	6.00m	8.40m	2.81m	17.13m OD

6.2 Ground Contamination

6.2.1 Historic land-use of the site indicated that significant chemical ground contamination was likely. Contaminants identified in the soil prior to commencement of the main strip and map

exercise included Total Cyanide, phenols, PAHs, sulphates, sulphides, and ammonia gas. Though contamination hot spots were present the ones identified were not considered to consider risk of a magnitude that would prevent working in their vicinity, provided that appropriate safety measures were implemented.

6.2.2 As a result the following PPE requirements were instructed and implemented whilst archaeological work took place;

6.2.3 P3 rated particle filtering and m3 vapour rated half masks were worn at all time whilst working inside the trench with A1B1E1K1P3 filters.

6.2.4 In addition to this disposable overalls with elasticated cuffs and hood goggles; gloves; ear defenders; rubber boots with steel toe-caps & insoles were worn as and when appropriate.

- Gas monitors and one PID monitor for measuring VOC's were provided by the Principle Contractor.
- Decontamination units with boot washes were provided along with a tool store.

6.2.5 The extent of contamination prevalent across the site limited the nature of the archaeological investigation during the watching brief. As such the total depths of many of the structural foundations were not established and accurate interpretation of some of their relationships to one another was not always achievable.

6.3 **Method**

6.3.1 Excavation of the ground and the Geotechnical Test Pits and Trenches were undertaken with a number of 360 mechanical excavators (of varying sizes) under archaeological supervision. The machines were fitted with a flat-bladed ditching bucket, except in cases where in the removal of substantial structures or hard standing surfaces with a toothed bucket was necessitated.

6.3.2 Where general ground reduction had revealed archaeological remains, the area was made safe to allow an archaeologist to enter, examine and record the masonry *in situ*. In these instances the remains were located by use of a GPS device. In the case of the Geotechnical Test Pits, structures and deposits were usually encountered at great depth and within contaminated ground and as such it was not deemed safe to enter to record them. In these instances the Test Pits were located with a GPS device and the archaeology recorded as precisely as possible from the top of the trench.

6.3.3 All recording systems adopted during the investigations were fully compatible with those most widely used elsewhere in London; that is those that developed out of the Department of Urban Archaeology Site Manual, now published by the Museum of London Archaeology (MOLAS 1994). Individual descriptions of all archaeological and geological strata and features excavated and exposed were entered onto pro-forma recording sheets. The archaeological features and deposits encountered were planned from a temporary baseline. Sections were hand-drawn on polyester based drawing film at a scale of 1:10 and located with a GPS. The

OD heights of all principal strata were recorded using a GPS and annotated on the appropriate paperwork. A full photographic record of the investigations was compiled, including both black and white prints and colour transparencies on 35mm film as well as digital format images.

6.4 **Objectives**

6.4.1 The aims and objectives of the field work were to identify, characterise and record any archaeological deposits present on the site. Specific aims and objectives were:

6.4.2 • Understanding the pre-development ground conditions;

6.4.3 • Excavating the arrangement of structures and spaces so that a history of the gas works and the industrial processes taking place can be developed;

6.4.4 • Examining the demise of the gas works;

6.4.5 • Recovering artefacts;

6.4.6 • Sampling of building materials;

7 Phased Archaeological Sequence

7.1 The following section attempts to detail a chronological account of the archaeological features and deposits encountered during the course of the watching brief.

7.2 PHASE 1: THE EOCENE EPOCH

7.2.1 DEVELOPMENT ZONE B: THE UNDERLYING GEOLOGY

7.2.1.1 A layer of London Clay is thought to underlie the entire site, which was deposited during the Eocene Epoch. The British Geological Survey of England and Wales indicates that the site is situated on top of London Clay.

7.2.1.2 Natural geology was encountered in various areas across Plot B1 during the ground reduction process. Where observed the clay was described as firm and light yellowish/greyish brown in colour [1121]. Where recorded, the natural clay was observed at c.12.00m OD. It has been truncated across a majority of the site during construction of successive phases of gasholders.

7.2.1.3 In sum, the deposit observed in Plot B1 appears to confirm the geological model followed by the British Geological Survey which shows that the site is situated on London Clay, deposited during the Eocene Epoch.

7.3 PHASE 2A: EARLY 19th CENTURY: SITE PREPARATION (c.1822-c.1823)

7.3.1 PREPATORY GROUNDWORKS

7.3.1.1 Evidence for preparatory groundworks was witnessed in the form of made ground deposits at varying points across Plot B1. These layers were seen primarily within the geotechnical tests pits located in areas in between the gasholders and, as such, remained undisturbed. A majority of the remaining test pits were located within the later gasholders, the construction of which would have truncated the early made ground.

7.3.1.2 The early 19th century made ground was encountered in test pits G12 and E14 (Figure 2). It was described as a compact greyish/yellowish brown sandy clay; [598] & [973] respectively. It contained occasional flecks and fragments of CBM none of which could be recovered due to ground contamination issues. It was identified between 15.12m OD – 15.96m OD.

7.3.1.3 The planning and laying out of a gasworks required due consideration to pre-existing ground conditions prior to the construction of relevant structures. Clay was known to present a relatively stable construction platform with made up demolition/rubbish deposits considered as treacherous (Meade 1921). As such it is likely that earlier unstable and uneven ground was removed and consolidated with the preferred clay deposits. This work would have been carried out during the first stages of construction between 1822 and 1823 and the deposits seen in the archaeological excavation are likely to have been those resulting from the ground preparation work during those years.

7.4 PHASE 2B: EARLY 19th CENTURY: INITIAL CONSTRUCTION OF THE IGLCC PANCRAS GASWORKS (c.1823-c.1826)

7.4.1 GASHOLDER 2 (c. 1823-4)

7.4.1.1 Two portions of the original Gasholder 2 were exposed and recorded during the watching brief conducted whilst ground reduction was taking place (Figure 18).

7.4.1.2 The first element [198] comprised of a curved red brick wall measuring c. 10.00m in length by 0.55m in width which formed the eastern side of Gasholder 2 The bricks measured 220-230mm by 105-110mm by 65-70mm, they were well made and set with a soft sandy light yellowish grey mortar in an English bond. The wall was recorded between 17.23-46m OD. Up to four buttresses [862], [863], [864] & [865] were attached to the outer side of the wall. The buttresses [862] and [863] measured approximately 0.50m by 0.50m, with buttress [864] measuring 0.60m by 0.30m and buttress [865] measured 0.60m by 0.40m. They were observed between 17.46-80m OD and were constructed of the same brick and mortar type as the main gasholder wall.

7.4.1.3 The western wall [1105] of Gasholder 2 was composed of the same brick and mortar and measured 15.60m in length by 0.60m in width. It was found at 15.85-16.00m OD and two buttresses [1106] & [1107] were constructed along its outer edge, as before. Both measured 0.80m by 0.60m with the former present at 14.60m OD and the latter at 14.46m OD.

7.4.1.4 As two opposite portions of the brick tank were recorded, it is possible to deduce the approximate diameter of the tank (from the inner lining of the brickwork) to be 15.65m.

7.4.1.5 Gasholder 2 was later truncated during the construction of the 1854 version of Gasholder 3, a portion of it surviving within said structure.

7.4.2 **GASHOLDER 3 (c. 1823-4)**

7.4.2.1 Two smaller fragments of the earlier Gasholder 3 were also seen and traced during machine excavation of the later, mid 19th century, elements (Figure 18).

7.4.2.2 The northern fragment [197] was constructed of the same fabric as the previously detailed remnants of Gasholder 2 (see above). The documented fragment measured 7.14m in length by 0.46m wide at 16.65-73m OD. One buttress [866] was attached to the outer side of the wall. It measured 0.60m by 0.60m at 16.73m OD.

7.4.2.3 A southern portion of Gasholder 3 [199] was also encountered and recorded during ground reduction work. It measured 8.25m by 0.50m at 16.67-81m OD. One buttress [867] was attached, measuring 0.81m by 0.67m at 16.81m OD. Masonry [1018] comprising part of a 'dry well', which served as a means of connecting up the inlet and outlet pipes of the gasholder, was constructed on the outer edge of this wall. The well measured 2.35m by 1.80m. It technically fell outside Plot B1 but has been included here for completeness.

7.4.2.4 As with Gasholder 2, this structure was later truncated during the construction of the later Gasholder 3 in 1854, a portion of it surviving within.

7.4.3 **GASHOLDER 7 (c.1825-6)**

7.4.3.1 A portion of Gasholder 7 was seen in the north-east corner of Plot B1 (Figure 18). Only a part of it fell inside the area of Plot B1 although, once more, it has been included here for completeness.

7.4.3.2 Being of the same phase as Gasholder's 2 & 3 (albeit erected 1-2 years later) it is of the same construction as the aforementioned structures. Almost half of the circular brick 'tank' [196] was identified, indicating a diameter of at least 15.17m from the inner lining of the brickwork.

A number of buttresses [870], [871], [872] & [873] were built onto the outer side of the brick tank. They varied in size from 0.60m by 0.35m to 0.95m by 0.75m at 12.53m OD.

7.4.3.3 As with Gasholder 3, the 'dry well' [1130] attached to this structure was also observed and recorded. It measured 2.35m by 2.20m at 12.79m OD.

7.4.3.4 The north-eastern half of the brick tank would have been truncated during the construction of the later Gasholder 8 c.1853-4.

7.5 PHASE 3A: EARLY-MID 19th CENTUTRY: ENLARGEMENT OF THE IGLCC PANCRAS GASWORKS (c.1829-c.1849)

7.5.1 GASHOLDER "X" (c.1829-c.1849)

7.5.1.1 The remains of a previously unknown Gasholder, which for the purposes of this report will be referred to as Gasholder "X", were identified in Test Pit F11 (Figure 19). A curved fragment of the tank wall [669] was seen in the south-west facing section of the test pit.

7.5.1.2 The masonry was constructed of light, orange/red fabric brick bound with a hard greyish mortar in an English bond. It continued along the north-eastern LOE of the trench for 3.00m and was 3.75m in height. The top level was at 15.74m OD.

7.5.1.3 The exact size of the tank is difficult to ascertain given that such a small portion of it was exposed. Its position is at variance with that of its potential positions shown in the map regression (Figures 4, 5 & 6.); its presence was therefore unexpected. It is possible that it represents a short lived attempt to build a larger gasholder as a temporary measure to increase capacity and keep up with a higher demand for gas during the mid 19th century. If this is the case relevant documentary source material to support this interpretation is as yet unavailable and will need to be looked for. It is likely to have been in existence during the 1830's, after which it would have been superseded by the new and notably larger Gasholder 9 (c.1840-49).

7.6 PHASE 3B: EARLY-MID 19th CENTURY: ENLARGEMENT OF THE IGLCC PANCRAS GASWORKS (c.1834-1849)

7.6.1 PREPATORY GROUNDWORKS

7.6.1.1 A layer of made ground, likely related to ground preparation prior to the construction of Gasholder 1 and Gasholder "B" between 1834 and 1849 was present in Geotechnical Test Pit E14.

7.6.1.2 The deposit comprised a compacted dark brownish grey silty clay containing frequent fragments of CBM. It was recorded as 1.70m thick and encountered at 15.82m OD.

7.6.1.3 Its stratigraphic relationship with other layers, it's positioning and its height above sea level and in relation to surrounding features and deposits suggest that it likely represents an attempt to level the ground after the removal of earlier gasometers and in advance of the construction of new larger gasholder during a phase of expansion of the mid 19th century.

7.6.2 GASHOLDER 1 (c.1834-c.1849)

7.6.2.1 Elements of Gasholder 1 were encountered during ground reduction works and within Geotechnical Test Pits E13 and D15. In all, three fragments of the circular tank were

documented (Figure 20).

7.6.2.2 The northern most portion of the Gasholder [1129] comprised a curved red fabric brick wall with a soft sandy light yellowish grey mortar in an English bond. The bricks measured 220-30mm x 105-10mm x 65-70mm. The wall fragment measured approximately 8.00m in length at 17.08-16m OD.

7.6.2.3 A further section of the tank was seen in T.P. E13. It comprised a c3.00m long curved brick wall [976] which was approximately 1.00m wide. Attached to the outer edge was a 'dry well' [977]. Measurements for this structure are approximate as the trench was inaccessible for health and safety reasons. Nonetheless it was estimated to have measured 2.50m in diameter and was present at 14.83m OD.

7.6.2.4 A final, small fragment of brickwork relating to Gasholder 1 was observed in T.P. D15. The curved brickwork [1082] measured 1.80m in length by approximately 0.45m in width. It was found at a level of 15.27-38m OD.

7.6.2.5 The above ground superstructure of Gasholder 1 was known to have survived until 1963, after which time it no longer appears on Ordnance Survey maps (Figure 15).

7.6.3 GASHOLDER "B" (c.1834-c.1849)

7.6.3.1 Three sections of the brick lined tank that formed Gasholder "B" were encountered during the watching brief conducted during ground reduction.

7.6.3.2 An 11.20m long section of curved brickwork [1123] which formed a southern portion of the Gasholder was recorded as being 0.80m in width at 17.65-80m OD. It was formed of well made red fabric brick with a soft sandy light yellowish grey mortar in an English bond. The bricks measured approximately 220-30mm x 105-10mm x 65-70mm.

7.6.3.3 The north-east portion of the gasometer [1124] measured approximately 12.00m in length at 17.30-55m OD. It was formed of the same building fabric and mortar as the section observed to the south. This fragment featured two buttresses [1125] & [1126] built onto the outer lining of the brick tank. Both fragments measured 1.20m in diameter with the former at 17.55-60m OD and the latter at 17.30-45m OD.

7.6.3.4 A final small fragment of brickwork [1083], representing a northern portion of the gasometer was also found, measuring 2.70m by 0.70m wide at 15.37m OD.

7.6.3.5 It is known from cartographic and historical sources that Gasholder "B" fell out of use by the late 19th century, having been demolished and built over by 1891.

7.7 PHASE 3C: EARLY-MID 19th CENTUTRY: ENLARGEMENT OF THE IGLCC PANCRAS GASWORKS (c.1840-c.1849)

7.7.1 GASHOLDER 9 (c.1840-c.1849)

7.7.1.1 The buried tank of Gasholder 9 was largely intact and recorded almost in its entirety (Figure 21). Its location straddles the border of Plots B3 & B1, with only the southern third occupying the latter area.

7.7.1.2 Two portions of the southern curve of the gasometer were verified in Plot B1. To the east, wall [840] measured approximately 25.50m in length by 0.60m wide. It was constructed from well made red fabric brick measuring 220-30mm x 105-10mm x 65-70mm with a sandy light

yellowish grey mortar in an English bond. It continued as wall [841] for another 12.75m and a top level was noted between 16.20m OD – 16.60m OD.

7.7.1.3 Two buttresses were found, built onto the outer edge of the south eastern edge of the tank [851] & [1131]. The northern most of the two [851] measured 1.00m by 0.75m at 16.65m OD – 16.70m OD. Buttress [1131] was larger at 2.20m by 1.00m at a level of 19.59m OD – 19.64m OD.

7.7.1.4 Part of the western edge of the gasholder was within Plot B1. The wall [844] measured 13.80m by 0.60m at 16.44m OD – 16.70m OD. One buttress [846] was attached to the wall on the outer edge. It measured 2.50m by 0.75m and was found at between 16.65m OD – 16.79m OD.

7.7.1.5 It was possible to deduce the diameter of the brick lining of the tank (from the inside edge) which was approximately 37.50m. As with Gasholder 1, the above ground superstructure existed until the 1960's, after which time it is no longer shown on Ordnance Survey maps (Figure 15).

7.8 PHASE 4: MID 19th CENTURY: FURTHER ENLARGEMENT OF THE IGLCC PANCRAS GASWORKS (c.1854)

7.8.1 GASHOLDER 3 (c.1854)

7.8.1.1 Four sections of the latest gasholder to be constructed in the Plot B1 area were encountered and traced during the watching brief, including within geotechnical Test Pit 2021 (Figure 22). This gasholder was built upon the location of two of the earliest gasometer tanks (2 & 3), the remains of which were found, relatively intact, within the later construction.

7.8.1.2 Geotechnical Test Pit 2021 identified a layer of made ground [568] which comprised a compacted greyish brown silty clay containing occasional small fragments of CBM and frequent sub-angular flint pebbles. A southern fragment of Gasholder 3 [569] truncates this layer, suggesting that it was laid down prior to its construction. The wall fragment was constructed from red and yellow fabric brick measuring 220-30mm x 100-110mm x 60-70mm with a hard grey sandy mortar in an English bond. It measured 3.20m by 1.00m at 17.70m OD.

7.8.1.3 A western fragment of the tank wall [1104] measured approximately 15.65m in length by 0.95m wide at 13.63m OD – 14.05m OD. Built onto the outer lining was a buttress [1103] which was constructed of the same fabric and measured 3.00m by 1.80m at 14.74m OD.

7.8.1.4 The northern edge of the circular structure was represented by wall [852] which measured 14.00m by 0.50m. It was witnessed between 19.09m OD by 19.55m OD. Another buttress [856] was registered as built onto the outer tank wall. It measured 2.10m by 1.50m at 19.55m OD.

7.8.1.5 The final portion of Gasholder 3, recorded in Plot B1, comprised wall [854] which measured 16.50m by 0.60m at 19.80m OD. Attached to it was a buttress [861] measuring 2.10m by 2.10m at 19.80m.

7.8.1.6 The diameter of the gasholder was approximately 35.75m. Gasholder 3, along with Gasholder 8, was used for gas storage during the late 20th century, long after the closure of the

Gasworks and, as such, was one of the last surviving gasholders.

7.9 PHASE 5: LATE 19th CENTURY: LATER MODIFICATIONS & ADDITIONS AT THE GLCC PANCRAS GASWORKS (c. 1884-c.1891)

7.9.1 THE METER HOUSE AND ADJACENT YARD (c. 1884-c.1891)

7.9.1.1 Later on in the life of the Gasworks, when production was beginning to decline, Gasholder "B" was demolished and in its place a collection of buildings that began to materialise from the mid 19th century on, expanded into the area the gasworks had previously occupied. During the course of ground reduction and within one of the geotechnical Test Pits, masonry datable to this phase of activity was observed (Figure 23).

7.9.1.2 A layer of compacted greyish brown silty clay [978], interpreted as made ground deposited immediately prior to the construction of the late 19th century buildings, was seen in Test Pit F17. It contained occasional flecks of mortar and CBM and was noted at 16.92m OD.

7.9.1.3 Brickwork [979] was seen to be truncating this layer. It was comprised of orange/red fabric brick measuring 220-30mm x 105-10mm x 65-70mm with a light grey sandy mortar in an English bond. It forms the south east corner of a wall, with one portion orientated NW-SE and the other NE-SW. The NW-SE aligned portion measured 1.20m in length with the NE-SW segment extending virtually the whole length of the test pit at 4.00m. The width of the wall could not be ascertained as it extended beyond the LOE of the trench. It was present at 16.92m OD. Initially interpreted as part of the Meter House, this interpretation is countered by map regression as when located in relation to late 19th century maps (Figures 9 & 10) it appears to be situated within a yard area and as such could represent an external freestanding wall, enclosing a space within the yard.

7.9.1.4 A more convincing wall element that is likely associated with the Meter House appeared c 6.00m north of Test Pit F17. It was constructed from the same fabric type as the wall stub above and measured 8.00m by 0.80m at 13.45m OD. This wall foundation would represent the eastern edge of the Meter House building which is shown on maps up until 1953 (referred, from 1942, as the Pump House), after which it appears to have been demolished.

7.10 PHASE 6: THE CULROSS BUILDINGS & THE MILK PLATFORM (c. 1891-)

7.11 Masonry was uncovered during works conducted to the south of Plot B1 which relates to the late 19th century Culross Buildings and the Milk Dock located to the rear. The masonry was uncovered during ground works and within Trenches 19 & 23 (Figure 24).

7.11.1 CULROSS BUILDINGS & MISSION HALL (c.1891-)

7.11.1.1 The earliest deposit encountered in Trench 19 consisted of a firm yellowish brown sandy clay [758] which contained frequent fragments of CBM and whole brick. It was 0.40m thick at 17.40m OD and represents made ground deposited prior to the construction of the Mission Hall building.

7.11.1.2 Cut [757] was observed truncating the made ground at 17.40m OD. It was linear, with vertical sides; E-W orientated and measured 0.30m by 2.50m into the LOE. It can be interpreted as a construction cut for the brick foundation [761] of the Mission Hall. The foundation was formed

of red fabric brick measuring 220mm x 110mm x 70mm which was machine moulded, set with a yellowish white soft mortar in an English bond. It extended the entire length of the LOE of the trench at 5.50m and respected the curvature of the road. Its height was recorded as 18.40m OD. Backfill [756] of the construction cut was observed in section as firm, medium brown sandy silt containing occasional small fragments of CBM.

7.11.1.3 A brick lined drain [755] was traced extending perpendicularly into the building in a NW-SE orientation. It comprised red fabric brick (same dimensions as those of the Mission Hall foundation) bonded with a greyish white mortar. It measured 1.20m by 0.40m into the LOE of the trench, at 17.00m OD.

7.11.1.4 To the south of Trench 19, three pieces of masonry believed to relate to the Culross building located behind the Mission Hall (Figure 12) were uncovered and recorded. The longer of the two segments of brickwork [1084] was constructed from red and yellow fabric brick measuring 220-30mm x 105-10mm x 65-70mm bonded with a relatively hard mid greyish brown sandy mortar and sat in a NW-SE orientation. The exposed piece of wall measured 3.60m in length by 0.25m wide at 16.86m OD. Abutting the wall, towards the south, was another foundation [1085], built of the same fabric, orientated NE-SW and measuring 1.10m by 0.30m at 16.85m OD. A further fragment [1110] was found approximately 8.00m to the east of wall [1084]. It was slightly more substantial measuring 1.30m by 0.50m made of frogged red fabric brick measuring 230mm x 115mm x 70mm and was aligned NE-SW at 14.85m OD.

7.11.2 **THE MILK PLATFORM (c.1891-)**

7.11.2.1 Two pieces of masonry were found that appear, from their location, to relate to the late 19th century Milk Dock. Wall [797] which could represent part of the platform itself, was made from frogged red fabric brick bonded measuring 230mm x 115mm x 70mm with a hard dark grey sandy mortar in an English Cross bond. It measured 3.20m by 0.40m, was orientated NW-SE and was located at the eastern LOE of Trench 23 (Figure 24). It was documented at 14.30m OD.

7.11.2.2 The second, smaller fragment [1111] was located away from the potential platform, nearer to the road. It measured 0.95m by 0.75m and was observed at 14.80m OD.

7.11.2.3 The Milk Platform, along with the Culross Buildings, survived into the 21st Century before they made way for modern development.

7.11.3 **ADDITIONAL BUILDINGS AND MADE GROUND DEPOSITS (c.1891-)**

7.11.3.1 An isolated piece of masonry was noted towards the south-west of Plot B1 (Figure 24) It likely relates to a building that stood at 1 Cheney Street. The masonry was formed of red and yellow fabric brick measuring 220-30mm x 100-05mm x 65-70mm bonded with a moderately hard mid greyish sandy mortar. The fragment measured 0.60m by 0.40m at 17.21m OD. It is feasible that the masonry relates to an earlier phase as a building was present in that area since the early 19th century. However assessment of the building fabric and the fact the buildings had been substantially remodelled on that spot by 1891 following the construction of a small passage linking Red Lion Street and Cheney Street, the masonry has been attributed to this later phase.

7.11.3.2 In addition to this structure some made ground deposits were encountered which, due to their

stratigraphic relationships to overlying modern layers, have been considered as late 19th century in date. Layers [1089] & [1090] were seen in Trench 24 to the extreme south-west of Plot B1. They had been truncated by modern services. Essentially representing the same deposit, they were described as a compacted mid brownish grey sandy clay containing no inclusions. The layer was approximately 1.00m – 1.10m thick and observed at 15.40m OD.

7.11.4 **PHASE 7: 20th – 21st CENTURY: MODERN LAYERS**

7.11.4.1 A range of modern (mid 20th – early 21st century) deposits, layers and services were encountered during the course of the watching brief and within the various Geotechnical Test Pits. These deposits included the backfill of Gasholders 1 [974], [975], [981] & [983] and 9 [633], [634], [635], [658], [667] & [668], various made ground and levelling layers [758], [759], [760], [798], [1089], [1090], [1091], [1092] & [1093] and service runs [+].

8 Conclusions

8.1 General

8.1.1 Prior to the commencement of works at Development Zone B, Kings Cross Central, a number of research objectives were set out in the Method Statement for the Archaeological Strip and Map and Watching Brief WSI at Development Zone B, Kings Cross Central (Matthews 2011) which were in turn derived from an earlier Archaeological Specification (IHCM 2010). Although the objectives were devised with particular reference to the archaeological strip and map exercise that took place in Plots B5 & B6, they are just as pertinent to the Watching Brief undertaken in the remainder of the plots within the development.

8.1.2 With regard to the history of the gasworks a majority of the data that addresses the research objectives can be found in the assessment report for the archaeological strip and map in Plots B5 & B6 (Bright 2012). Therefore, the data and findings presented here to address these objectives can be considered supplementary to those addressed in the previous report and to any future reports covering the remaining plots.

8.2 Research Objectives

8.2.1 The investigation's aims and objectives, as defined prior to the fieldwork (Matthews 2011) are presented here along with responses based upon the data and analysis provided and undertaken as part of the project.

8.2.2 Understanding the pre-development ground conditions;

8.2.2.1 Due to the levels of contamination encountered prior to and during the archaeological investigations, full scale excavation down to the natural geology was not deemed suitable due to health and safety concerns. As such earlier archaeological horizons were observed only during the excavation of small geotechnical trenches and the data retrieved was limited.

8.2.2.2 However it was possible to establish that the natural geology across the site comprised London Clay deposited during the Eocene Epoch, observed around 12.00m OD, a depth that suggests considerable horizontal truncation had taken place most likely during the construction of the gasworks.

8.2.2.3 Evidence for preparatory ground-works was observed in the form of made ground deposits at varying points across the zone. It is likely that due to the importance of ground stability on the site of a gasworks a significant amount of levelling and ground raising was employed prior to the construction of structures and buildings relating to the works.

8.2.3 Excavating the arrangement of structures and spaces so that a history of the gas works and the industrial processes taking place can be developed;

8.2.3.1 Interrogation of available historical records and cartographic sources make it apparent that the area which Plot B1 occupies represents only a small proportion of the full extent of the former gasworks. The archaeological remains investigated relate to a considerable period of the history of the gasworks. As they predominantly involve the gasometers themselves little,

other than the nature and development of the storage capabilities of the gasworks at various stages of its use and past can be said about the industrial processes that took place there.

8.2.3.2 Evidence for preparatory works was encountered in the form of made ground deposits. Subsequently some of the remains of the earliest set of 6 gasholders were encountered during the watching brief, namely Gasholders 2, 3 & 7 which date to the c.1822-26. A later phase of enlargement between 1834-49 is represented by the presence of Gasholders 1, "B" and "9". The remains of one of the final gasometers to be constructed on site, Gasholder 3, were also identified. Made ground deposits that relate to the construction of the various phases of gasometers were seen in a number of areas/test pits across the site.

8.2.3.3 Later phases of activity observed include the demolition of Gasholder "B" and the subsequent construction of the Meter House and associated structures; the establishment of the Culross Buildings to the south of the site, beyond the boundary of the gasworks and the construction of the Milk Platform to the rear of them.

8.2.3.4 One phase of activity that may require further research and investigation relates to the remains revealed in Test Pit F11, referred to in this report as Gasholder "X" on account of its presence being somewhat unexpected. A map regression exercise shed little light on this and it can only be assumed that at some point between 1834 and 1849 the original Gasholders 6 & 7 made way for a slightly enlarged gasometer (similar in size to the equally short lived Gasholder "B" perhaps) before being superseded by the considerably more substantial Gasholder 9. Clearly though, prior to the publication of the findings included in this report, additional research will need to be undertaken as to ascertain the veracity of this hypothesis.

8.2.4 Examining the demise of the gas works;

8.2.4.1 Historical evidence indicates that the gasworks fell into a steady and relatively rapid decline during the last years of the 19th century, culminating in its eventual closure in 1911. It is known at a number of the gasholders continued to be used for their storage capacity up until the end of the 20th century, notably Gasholders 3 & 8 (the latter of which is located predominantly within Plot B5), which may account for their relatively good state of preservation below ground.

8.2.4.2 The demolition of Gasholder "B" and the erection of additional buildings could have been the product of a decline in the demand for gas storage at the works. Alternatively it is likely that the need for the aforementioned gasholder was superseded by the construction of the larger gasometers, notably Gasholder's 3 & 8.

8.2.5 Recovery of artefacts and sampling of building materials;

8.2.5.1 The recovery of artefacts and sampling of building materials was proscribed due health and safety concerns surrounding the contaminated nature of ground deposits associated with archaeological layers and structures.

8.2.6 Examining the relationship of the gas works to the Regent's Canal.

8.2.6.1 The location of the groundworks and geotechnical investigations within Plot B1 did not facilitate any investigation into the interaction of the gasworks and Regents Canal.

8.3 Importance of Results

8.3.1 The investigation carried out by Pre-Construct Archaeology Ltd. at Development Zone B, Kings Cross Central (KXU10), revealed the below-ground foundations of buildings and infrastructure that formed part of the former IGLCC St Pancras Gasworks and structures relating to the Culross Development and Milk Platform to the south. The age, nature and layout of these structures and deposits shed light on the development of the complex, which spanned a period from 1821 to 1911.

8.3.2 This assessment has illustrated the value of combining archaeological and historical research when investigating a complex industrial site of this nature. In combination, these sources enabled the layout of the site and the way that it functioned as a gasworks along with the additions and modifications that occurred to it over time to be comprehensively reviewed and facilitated a significantly improved understanding of the development of the site than would have been possible using either data source in isolation.

8.3.3 The IGLCC St Pancras Gasworks represented an archaeologically well-preserved 19th century industrial complex; with a number of its contemporaries having disappeared altogether as a result of redevelopment throughout the course of the 20th century. Gasometer 8 aside, little above ground evidence related to the St Pancras Gasworks remained. Consequently this document, when taken along side previous (Bright 2012) and future reports detailing the findings made during the Development Zone B watching brief, represents a uniquely detailed and thorough insight into the design, workings and eventual demise of an early-late 19th century gasworks over the 90 years of its history.

8.4 Publication Outline

8.4.1 The results of the investigations will be published as an entry in the London Archaeologist 'Round Up'.

8.4.2 It is also recommended that the results of this report and the Archaeological Strip and Map in Plots B5 & B6 (alongside further reports covering the watching brief undertaken in the remaining areas of Zone B and standing building assessments of the Gasholders and Culross Buildings) should be integrated and incorporated into a monograph which will seek to synthesise the data from all archaeological works conducted by Pre-Construct Archaeology at Kings Cross Central, to the south of the canal.

8.4.3 The entire site archive will be deposited at LAARC under site code KXU10 following approval of this report. PCA will provide a copy to the local studies library, to the Greater London Historic Environment Record and the Archaeology Advisor of the London Borough of Camden.

9 Acknowledgements

9.1 Pre-Construct Archaeology Limited would like to thank King's Cross Central General Partner Limited for commissioning the work. BAM Nuttall Ltd. are thanked for their on-site assistance. Kim Stabler, English Heritage Greater London Archaeological Advisor, is also acknowledged for her collaborative role.

9.2 The project was managed for Pre-Construct Archaeology Limited by Charlotte Matthews. Tomasz Mazurkiewicz carried out the watching brief with the assistance of Deborah Nadal and Joe Brooks. This report was authored by Iain Bright, with Guy Thompson contributing historical research. Mark Roughley produced the illustrations and Frank Meddens edited the report.

10 Bibliography

Primary Sources

The National Archives (TNA)

TNA RAIL 783/110 Closure of Gas & Coke Works, purchase of site by GNR, 1904-1912
TNA RAIL 1189/1423 New Road at King's Cross – Goods Way, 1914-1919
TNA RAIL 1189/1425 New road at King's Cross (Goods Way), Great Northern internal correspondence, 1914-1921.
TNA RAIL 1189/1427 Widening of Maiden Lane (York Road) Bridge over Regents Canal, 1915-1920
TNA RAIL 1189/1428 Land & Easements associated with new road at King's Cross (Goods Way), 1917-1921
TNA RAIL 1189/1429 New road at King's Cross (Goods Way), J.L. Davies (Coal Merchants) Ltd, 1919-1920
TNA RAIL 1189/1432 New road at King's Cross (Goods Way), Gas Light & Coke Co, 1919
TNA HO 198/92 Ministry of Home Security Pilotless Aircraft Reports, Region 5, 07-22/08/1944

London Metropolitan Archives (LMA)

B/IMP/GLC/1 Imperial Gas Light & Coke Company Directors' Minutes and Orders No. 1, 1821-1823
B/IMP/GLC/2 Imperial Gas Light & Coke Company Directors' Minutes and Orders No. 2, 1823-1824
B/IMP/GLC/3 Imperial Gas Light & Coke Company Directors' Minutes and Orders No. 2, 1824-1826
B/IMP/GLC/4 Imperial Gas Light & Coke Company Directors' Minutes and Orders No. 2, 1827-1828
B/IMP/GLC/62 Imperial Gas Light & Coke Company Committee for Works Minutes, 1850-1851
B/IMP/GLC/63 Imperial Gas Light & Coke Company Committee for Works Minutes, 1852-1853
B/GLCC/126 Gas Light & Coke Company Minutes of the Works and Products Committee, 1903-1904

Secondary Sources

Bright, I. 2012. An Assessment Report of an Archaeological Strip and Map and Watching Brief at Development Zone B, Kings Cross Central, London Borough of Camden , PCA. Unpublished Report.
Everard, S. 1992. *The History of the Gas Light and Coke Company 1812-1949*. London Gas Museum Reprint. London: A & C Black
Falkus, M. 1988. *Always under Pressure: A History of North Thames Gas since 1949*. London: Macmillan Press
LBH. 2009. Design Development Notes for Basements, Foundations & Other Groundworks at Zone B Kings Cross for BAM Design. LBH Wembley. Unpublished Report.
Matthews, C. 2011. Method Statement for an Archaeological Strip and Map and Watching Brief at Development Zone B, Kings Cross Central, London Borough of Camden. PCA. Unpublished Report.
Meade, A. 1921. Modern Gasworks Practice. London. Benn Brothers.
North Thames Gas Board. 1955. Bromley Works. London: NTGB

Stewart, E.G. 1957. *Historical Index of Gasworks past and present in the area now served by the North Thames Gas Board 1806-1957.* London: North Thames Gas Board

Unknown. 1955. 'Bromley Gasworks', in *Coke and Gas Magazine* No. 11, pp: 335-423

Directories

Freebody's Derby Directory, 1852

11 Appendix 1: Context Index

Site Code	Context No.	Plan	Type	Description	Associated Structure	Period	Phase
KXU10	196	Plot B1	masonry	Remains of wall of earlier gas holder no. 7	Gasometer 7	1822-4	2b
KXU10	197	Plot B1	masonry	Remains of wall of earlier gas holder no. 3	Gasometer 3	1822-4	2b
KXU10	198	Plot B1	masonry	Remains of wall of earlier gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	199	Plot B1	masonry	Remains of wall of earlier gas holder no. 3	Gasometer 3	1822-4	2b
KXU10	568	TP.2021	layer	19th c made ground		1850's	4
KXU10	569	TP.2021	masonry	19th c brick wall poss. Gas holder nr. 3	Gasometer 3	1850's	4
KXU10	570	TP.2022	masonry	19th c brick wall poss. Gas holder nr. 3	Gasometer 3	1850's	4
KXU10	598	TP.G12	layer	19th c made ground		1822-4	2a
KXU10	633	TP.F11	layer	a layer of yellow sandy clay/backfill of GH9		Modern	7
KXU10	634	TP.F11	layer	layer- dark yellowish clay/backfill of GH9		1905+	7
KXU10	635	TP.E12	layer	layer- greyish brown clay/backfill of GH9		1905+	7
KXU10	658	TP.F12	layer	made ground/backfill of GH9		Modern	7
KXU10	659	TP.F12	fill	backfill of construction cut (660)		Modern	7
KXU10	660	TP.F12	cut	construction cut		Modern	7
KXU10	667	TP.F11	layer	made ground/backfill of GH9		Modern	7
KXU10	668	TP.F11	layer	Re-deposited clay/backfill of GH9		Modern	7
KXU10	669	TP.F11	masonry	Remains of unidentified gasholder	Gasometer "X"	1829-49	3a
KXU10	755	Trench nr.19	masonry	19th c brick drain	Culross Mission Hall	1891-1892	6
KXU10	756	Trench nr.19	fill	Fill of construction cut (757)		1891-1892	6
KXU10	757	Trench nr.19	cut	Construction cut for wall (755)		1891-1892	6
KXU10	758	Trench nr.19	layer	19th/20th c made ground		1891-1892	6
KXU10	759	Trench nr.19	layer	modern made ground		Modern	7
KXU10	760	Trench nr.19	layer	modern levelling layer		Modern	7
KXU10	761	Trench nr.19	masonry	19th c brick wall	Culross Mission Hall	1891-1892	6
KXU10	797	Trench 23	masonry	Early 20th c platform wall	Milk Dock	1891-1892	6
KXU10	798	Trench 23	layer	20th c made ground		Modern	7

KXU10	838	Plot B1	masonry	19th c. gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	839	Plot B1	masonry	19th c. gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	840	Plot B1	masonry	19th c. gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	841	Plot B1	masonry	19th c. gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	842	Plot B1	masonry	19th c. Wall of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	843	Plot B1	masonry	19th c. Wall of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	844	Plot B1	masonry	19th c. Wall of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	845	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	846	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	847	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	848	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	849	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	850	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	851	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c
KXU10	852	Plot B1	masonry	19th c. Wall of gas holder no. 3	Gasometer 3	1850's	4
KXU10	853	Plot B1	masonry	19th c. Wall of gas holder no. 3	Gasometer 3	1850's	4
KXU10	854	Plot B1	masonry	19th c. Wall of gas holder no. 3	Gasometer 3	1850's	4
KXU10	855	Plot B1	masonry	19th c. buttress of gas holder no. 3	Gasometer 3	1850's	4
KXU10	856	Plot B1	masonry	19th c. buttress of gas holder no. 3	Gasometer 3	1850's	4
KXU10	857	Plot B1	masonry	19th c. buttress of gas holder no. 3	Gasometer 3	1850's	4
KXU10	858	Plot B1	masonry	19th c. buttress of gas holder no. 3	Gasometer 3	1850's	4
KXU10	859	Plot B1	masonry	19th c. buttress of gas holder no. 3	Gasometer 3	1850's	4
KXU10	860	Plot B1	masonry	19th c. buttress of gas holder no. 3	Gasometer 3	1850's	4
KXU10	861	Plot B1	masonry	19th c. buttress of gas holder no. 3	Gasometer 3	1850's	4
KXU10	862	Plot B1	masonry	Buttress wall of earlier gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	863	Plot B1	masonry	Buttress wall of earlier gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	864	Plot B1	masonry	Buttress wall of earlier gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	865	Plot B1	masonry	Buttress wall of earlier gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	866	Plot B1	masonry	Buttress wall of earlier gas holder no. 3	Gasometer 3	1822-4	2b
KXU10	867	Plot B1	masonry	Buttress wall of earlier gas holder no. 3	Gasometer 3	1822-4	2b
KXU10	870	Plot B1	masonry	Buttress wall of earlier gas holder no. 7	Gasometer 7	1822-4	2b

KXU10	871	Plot B1	masonry	Buttress wall of earlier gas holder no. 7	Gasometer 7	1822-4	2b
KXU10	872	Plot B1	masonry	Buttress wall of earlier gas holder no. 7	Gasometer 7	1822-4	2b
KXU10	873	Plot B1	masonry	Buttress wall of earlier gas holder no. 7	Gasometer 7	1822-4	2b
KXU10	972	Test pit E14	layer	Silty clay		1834-49 (or early 1840's)	3b
KXU10	973	Test pit E14	layer	Re-deposited clay		1822-4	2a
KXU10	974	Test pit E13	layer	Silty clay/backfill of GH1		Modern	7
KXU10	975	Test pit E13	layer	Silty clay/backfill of GH1		Modern	7
KXU10	976	Test pit E13	masonry	Gas holder wall (GH1)	Gasometer 1	1834-49 (or early 1840's)	3b
KXU10	977	Test pit E13	masonry	Well associated with gas holder [976]	Gasometer 1	1834-49 (or early 1840's)	3b
KXU10	978	Test pit F17	layer	Silty clay		1870's-1891	5
KXU10	979	Test pit F17	masonry	19th century wall (in yard south of meter house?)	Yard south of Meter House	1870's-1891	5
KXU10	981	Test pit D15	layer	Made ground/backfill of GH1		Modern	7
KXU10	982	Test pit D15	masonry	Gas holder wall (GH1)	Gasometer 1	1834-49 (or early 1840's)	3b
KXU10	983	Test pit D14	layer	20th century made ground/backfill of GH1		Modern	7
KXU10	1016	Plot B1	masonry	Well associated with gas holder [199]	Gasometer 3	1822-4	2b
KXU10	1082	Plot B1	masonry	Remains of wall of gas holder no. 1	Gasometer 1	1834-49 (or early 1840's)	3b
KXU10	1083	Plot B1	masonry	Remains of wall of gas holder "B"	Gasometer "B"	1834-49 (or early 1840's)	3b
KXU10	1084	Plot B1	masonry	Remains of building (Culross)	Culross Building	1891-1892	6
KXU10	1085	Plot B1	masonry	Remains of building (Culross)	Culross Building	1891-1892	6
KXU10	1089	Plot B1	layer	Sandy clay made ground		1891-1892	6
KXU10	1090	Plot B1	layer	Sandy clay made ground		1891-1892	6
KXU10	1091	Plot B1	layer	Sandy mortar demo layer		Modern	7
KXU10	1092	Plot B1	layer	Sandy gravel levelling layer		Modern	7
KXU10	1093	Plot B1	layer	Sandy gravel levelling layer		Modern	7
KXU10	1094	Plot B1	masonry	Remains of wall foundation	1 Cheney Street	1891-1892	6
KXU10	1103	Plot B1	masonry	Buttress wall of gas holder no. 3	Gasometer 3	1850's	4
KXU10	1104	Plot B1	masonry	Remains of wall of gas holder no. 3	Gasometer 3	1850's	4
KXU10	1105	Plot B1	masonry	Buttress wall of gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	1106	Plot B1	masonry	Buttress wall of gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	1107	Plot B1	masonry	Remains of wall of gas holder no. 2	Gasometer 2	1822-4	2b
KXU10	1110	Plot B1	masonry	Wall foundation related to Culross Building	Culross Building	1891-1892	6
KXU10	1111	Plot B1	masonry	Wall foundation related to Milk Platform	Milk Dock	1891-1892	6
KXU10	1121	Plot B1	natural	London clay		Natural	1

KXU10	1122	Plot B1	natural	Re-deposited clay		1822-4	2a
KXU10	1123	Plot B1	masonry	Remains of wall of gas holder "B"	Gasometer "B"	1834-49 (or early 1840's)	3b
KXU10	1124	Plot B1	masonry	Remains of wall of gas holder	Gasometer "B"	1834-49 (or early 1840's)	3b
KXU10	1125	Plot B1	masonry	Remains of wall of gas holder "B"	Gasometer "B"	1834-49 (or early 1840's)	3b
KXU10	1126	Plot B1	masonry	Buttress wall of gas holder	Gasometer "B"	1834-49 (or early 1840's)	3b
KXU10	1127	Plot B1	masonry	Wall within earlier gas holder "B"	Meter House	1870's-1891	5
KXU10	1129	Plot B1	masonry	Remains of wall of gas holder no. 1	Gasometer 1	1834-49 (or early 1840's)	3b
KXU10	1130	Plot B1	masonry	Well associated with gas holder [196]	Gasometer 7	1822-4	2b
KXU10	1131	Plot B1	masonry	19th c. buttress of gas holder no. 9	Gasometer 9	1834-49 (or late 1840's)	3c

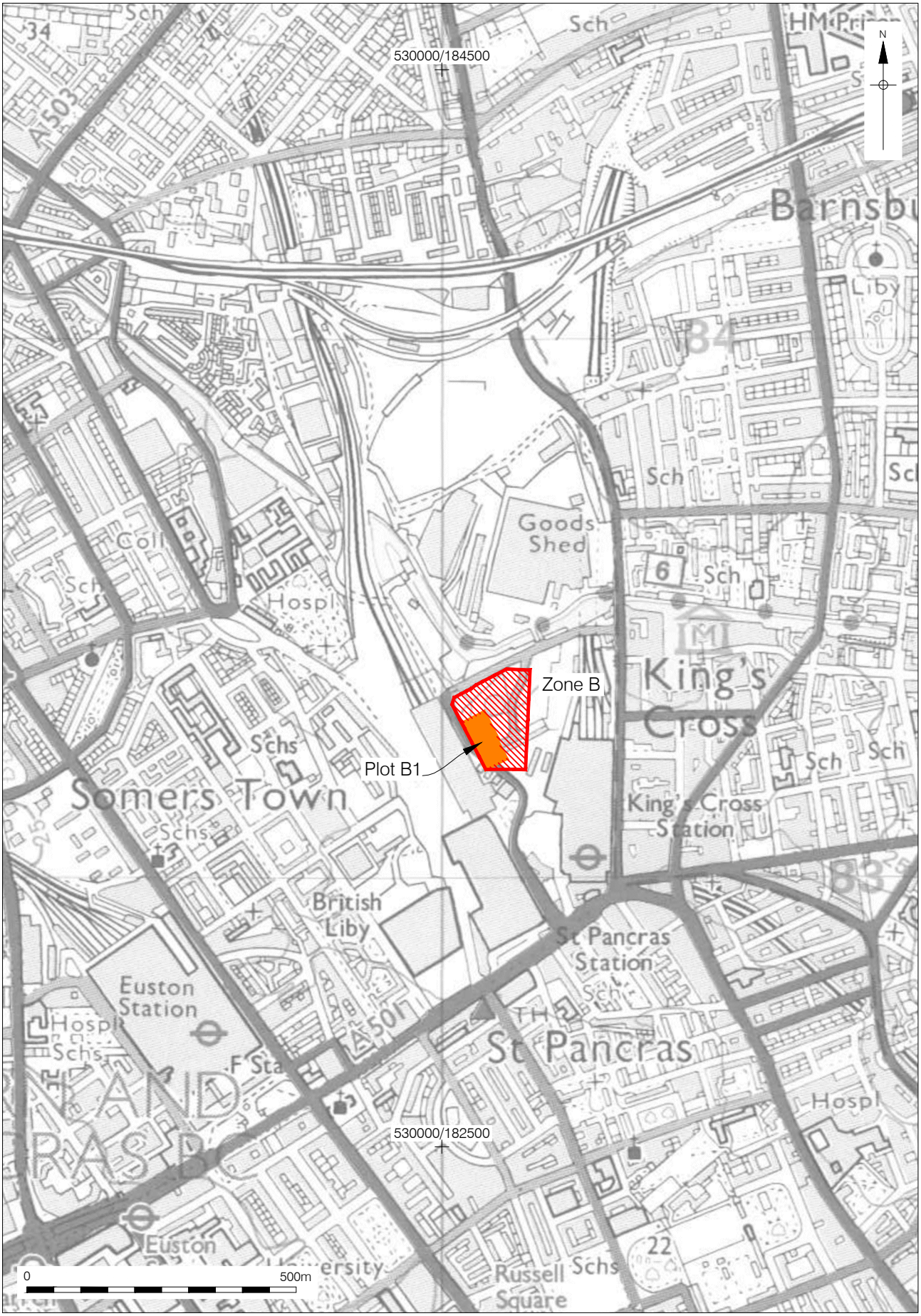
12 Appendix 2: OASIS Information

OASIS DATA COLLECTION FORM: ENGLAND

OASIS ID: preconst1-138662

Project details	
Project name	PLOT B1, KINGS CROSS CENTRAL, LONDON BOROUGH OF CAMDEN
Short description of the project	The archaeological watching brief undertaken within Plot B1 comprised the monitoring of ground reduction works and the excavation of 22 trenches/test pits undertaken for geotechnical purposes. The archaeological methodology was designed so as to facilitate archaeological recording in a manner safe for site staff considering the known contamination issues present on site. The underlying geology is understood to consist of London Clay. Preparatory work in the form of made ground deposits to stabilise the ground ahead of the construction of the gasworks structures were observed in various areas across the site. Subsequently some the remains of the earliest set of 6 gasholders were encountering during the watching brief, namely Gasholders 2, 3 and 7 which date to the c. 1822-26. A later phase of enlargement between 1834-49 is represented by the presence of Gasholders 1,
Project dates	End: 16-11-2012
Previous/future work	Yes / Yes
Any associated project reference codes	KXU10 - Site code
Type of project	Recording project
Site status	Conservation Area
Current Land use	Vacant Land 3 - Despoiled land (contaminated derelict and ?brownfield? sites)
Monument type	GAS HOLDER Post Medieval
Monument type	METER HOUSE Post Medieval
Monument type	CULROSS BUILDINGS Post Medieval
Monument type	MILK PLATFORM Post Medieval
Investigation type	"Field observation","Part Excavation","Part Survey","Salvage Record","Test-Pit Survey","Watching Brief"
Prompt	Planning condition
Project location	
Country	England
Site location	GREATER LONDON CAMDEN Plot B1, Kings Cross Central, London Borough of Camden
Postcode	NW1 2TJ
Study area	4,350 Square metres
Site coordinates	TQ 30119 83347 51 0 51 32 00 N 000 07 25 W Point
Height OD / Depth	Min: 12.00m Max: 12.00m

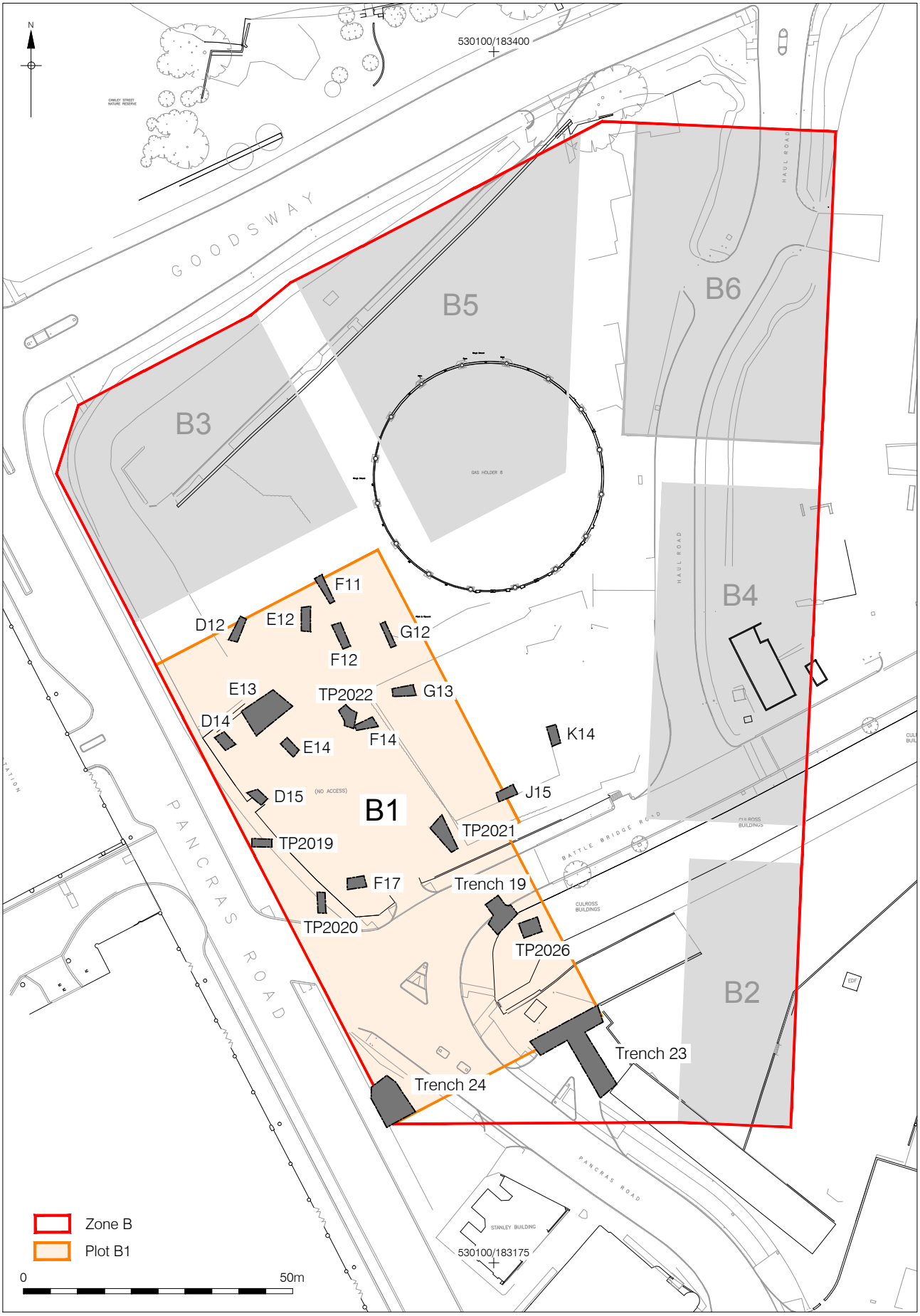
Project creators	
Name of Organisation	PCA
Project brief originator	King's Cross Central General Partner Ltd
Project design originator	Charlotte Matthews
Project director/manager	Charlotte Matthews
Project supervisor	Tomasz Mazurkiewicz
Type of sponsor/funding body	Nuttals ltd
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	LAARC
Digital Contents	"none"
Digital Media available	"Database","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	LAARC
Paper Contents	"none"
Paper Media available	"Context sheet","Drawing","Matrices","Report","Survey "
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Watching Brief on Plot B1, Kings Cross Central, London Borough of Camden
Author(s)/Editor(s)	Bright, I
Date	2012
Issuer or publisher	PCA
Place of issue or publication	Brockley, London
Description	Grey Literature Watching Brief Report
Entered by	Archivist (archive@pre-construct.com)
Entered on	5 December 2012



30/11/12 MR

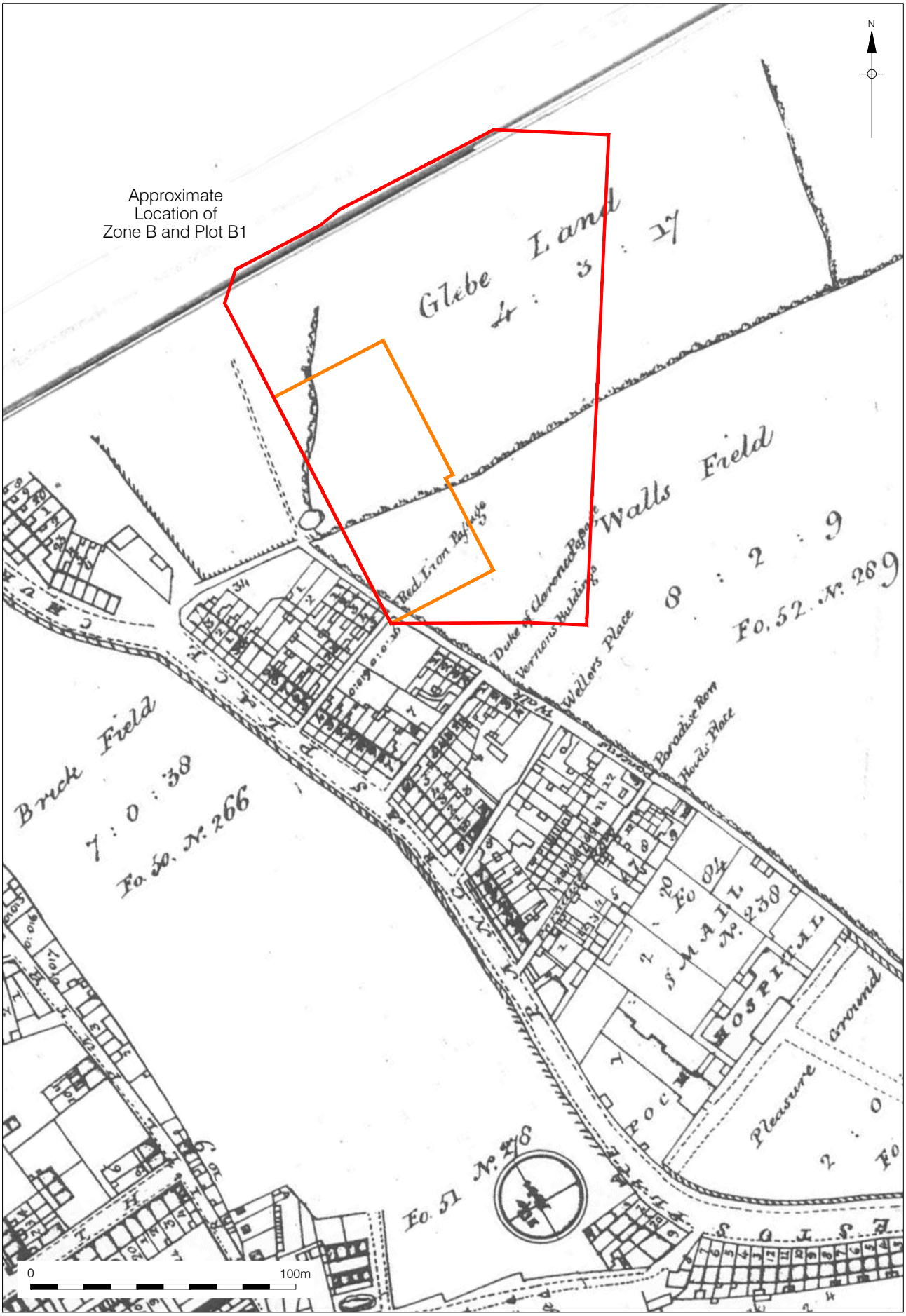
Figure 1
Site Location
1:10,000 at A4

Topographical Survey data provided by client



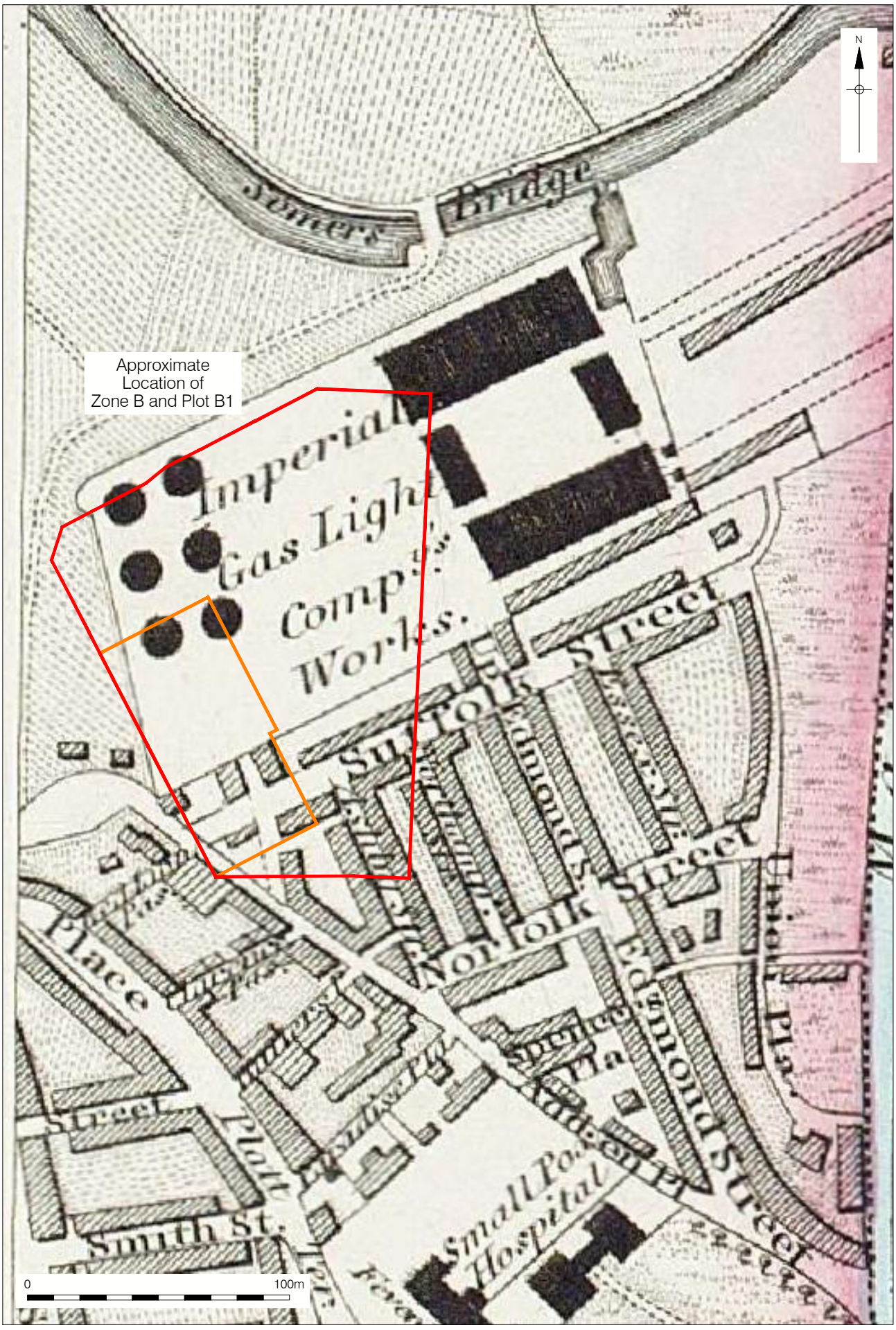
30/11/12 MR

Figure 2
Detailed Site and Trench Location
1:1,000 at A4



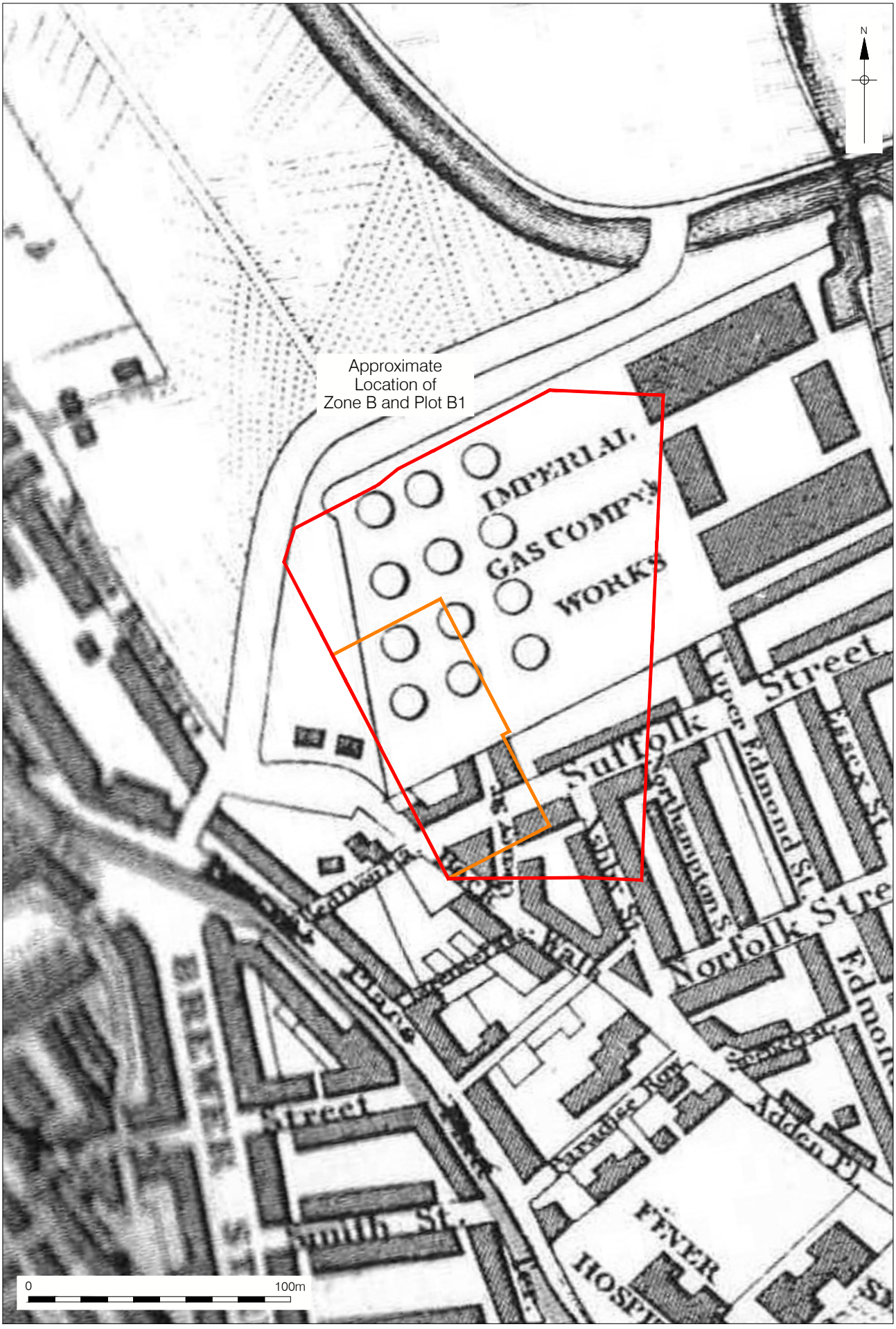
30/11/12 MR

Figure 3
Thompson's map, 1801-04
Approx. 1:2,000 at A4



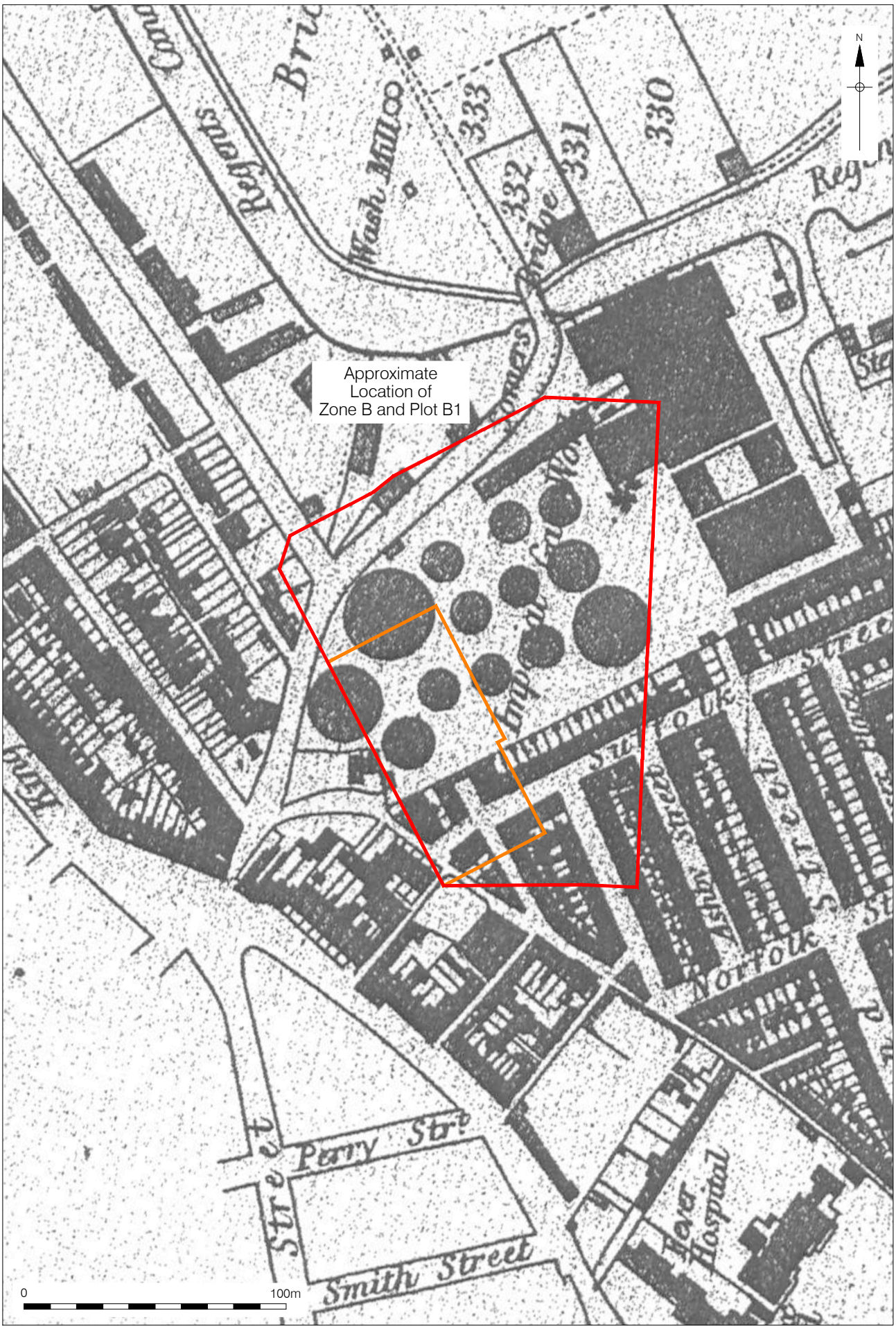
30/11/12 MR

Figure 4
Greenwood's Map of London, 1830
Approx. 1:2,000 at A4



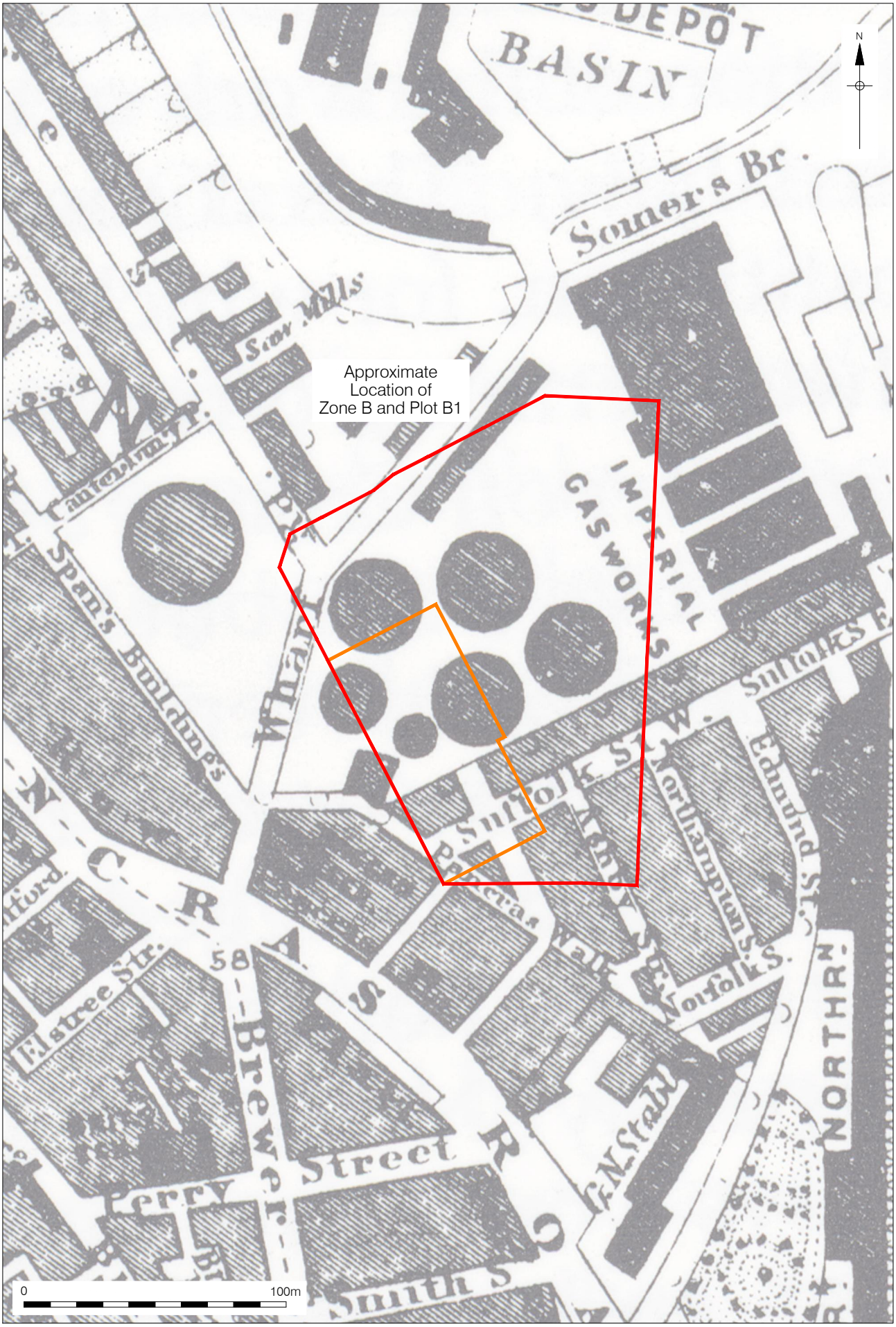
30/11/12 MR

Figure 5
Davies' Map of the Parish of Marylebone, 1834
Approx. 1:2,000 at A4



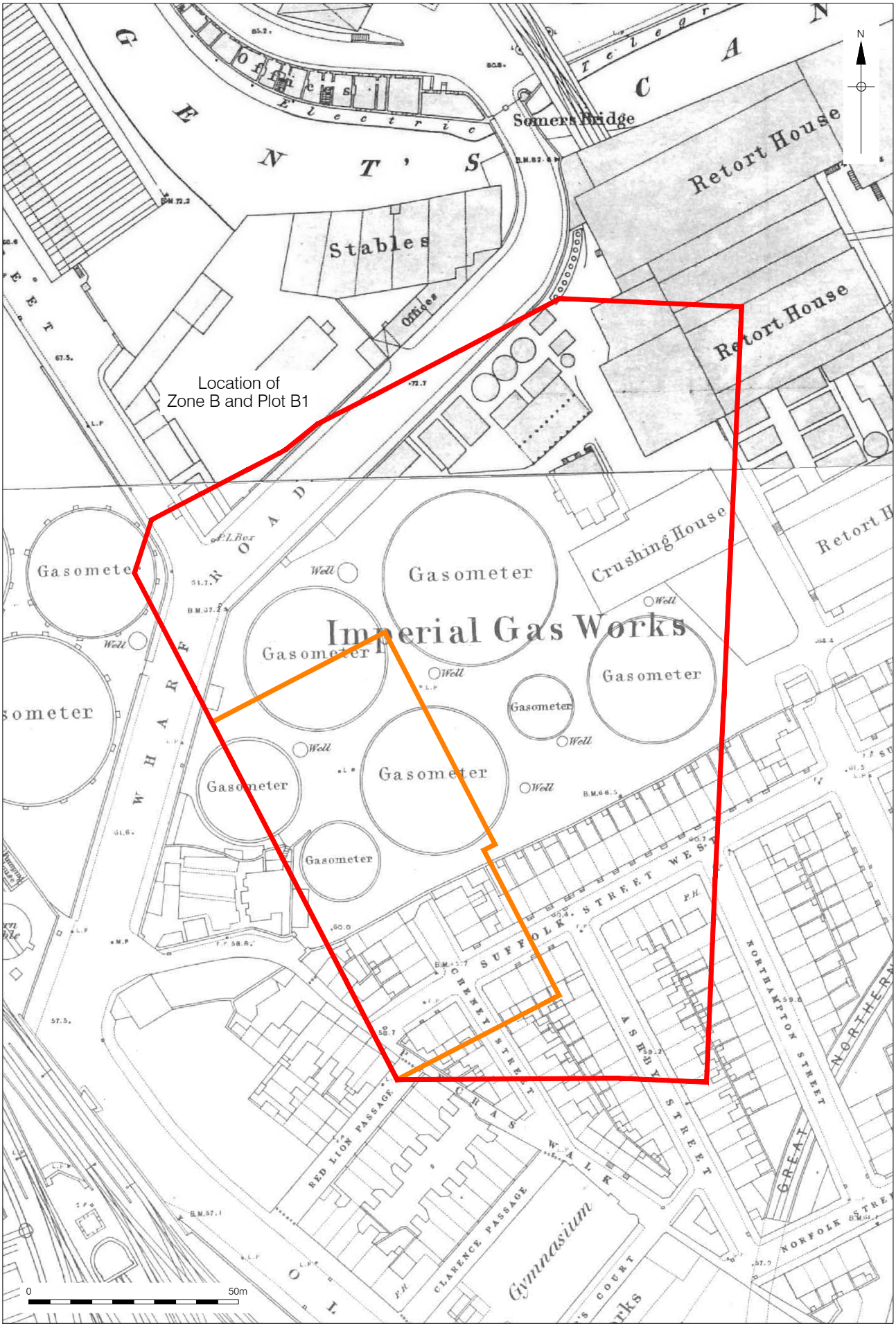
30/11/12 MR

Figure 6
Great Northern Railway Bill, Parliamentary Session Plan, 1849
Approx. 1:2,000 at A4



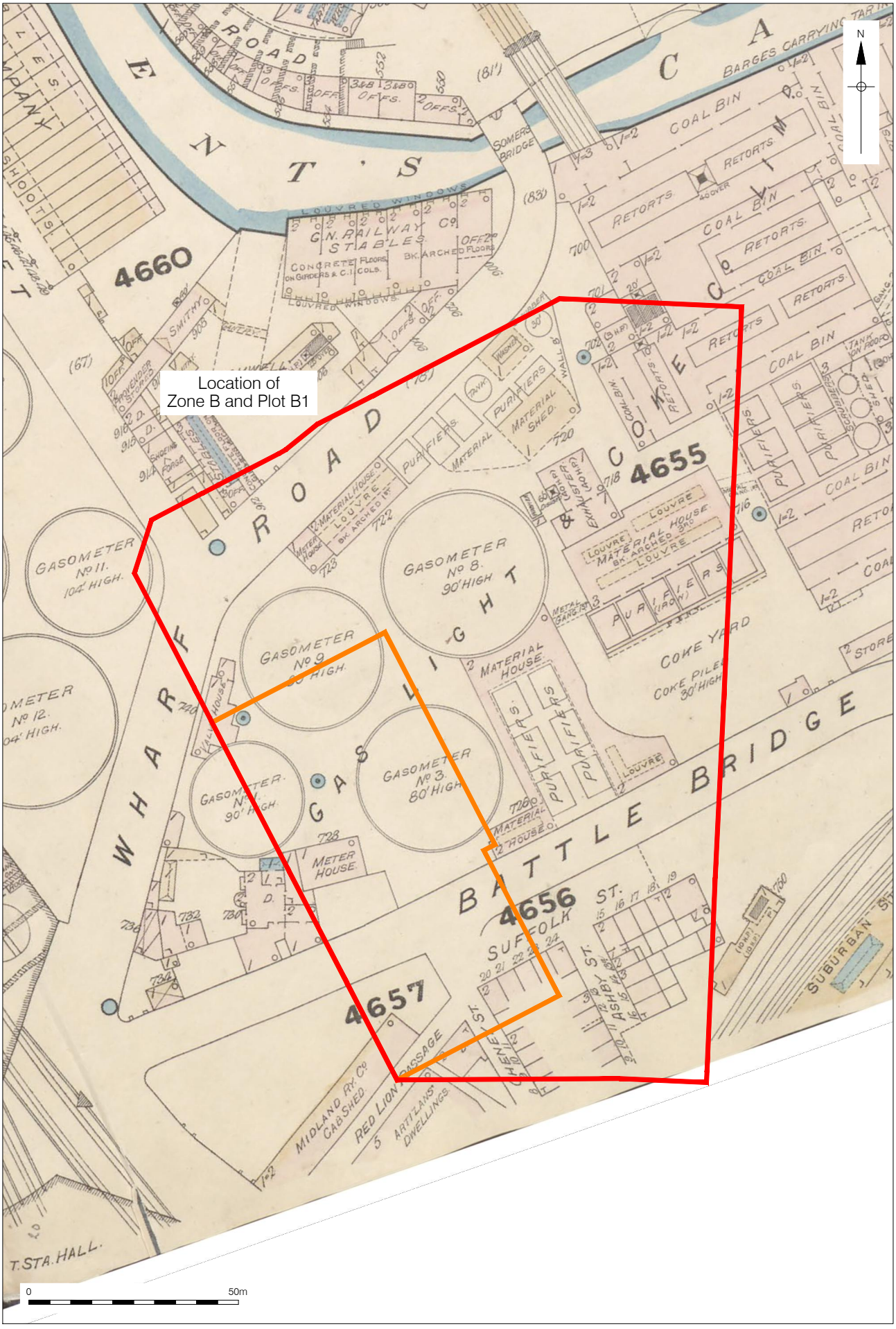
30/11/12 MR

Figure 7
Stanford's map, 1862
1:2,000 at A4



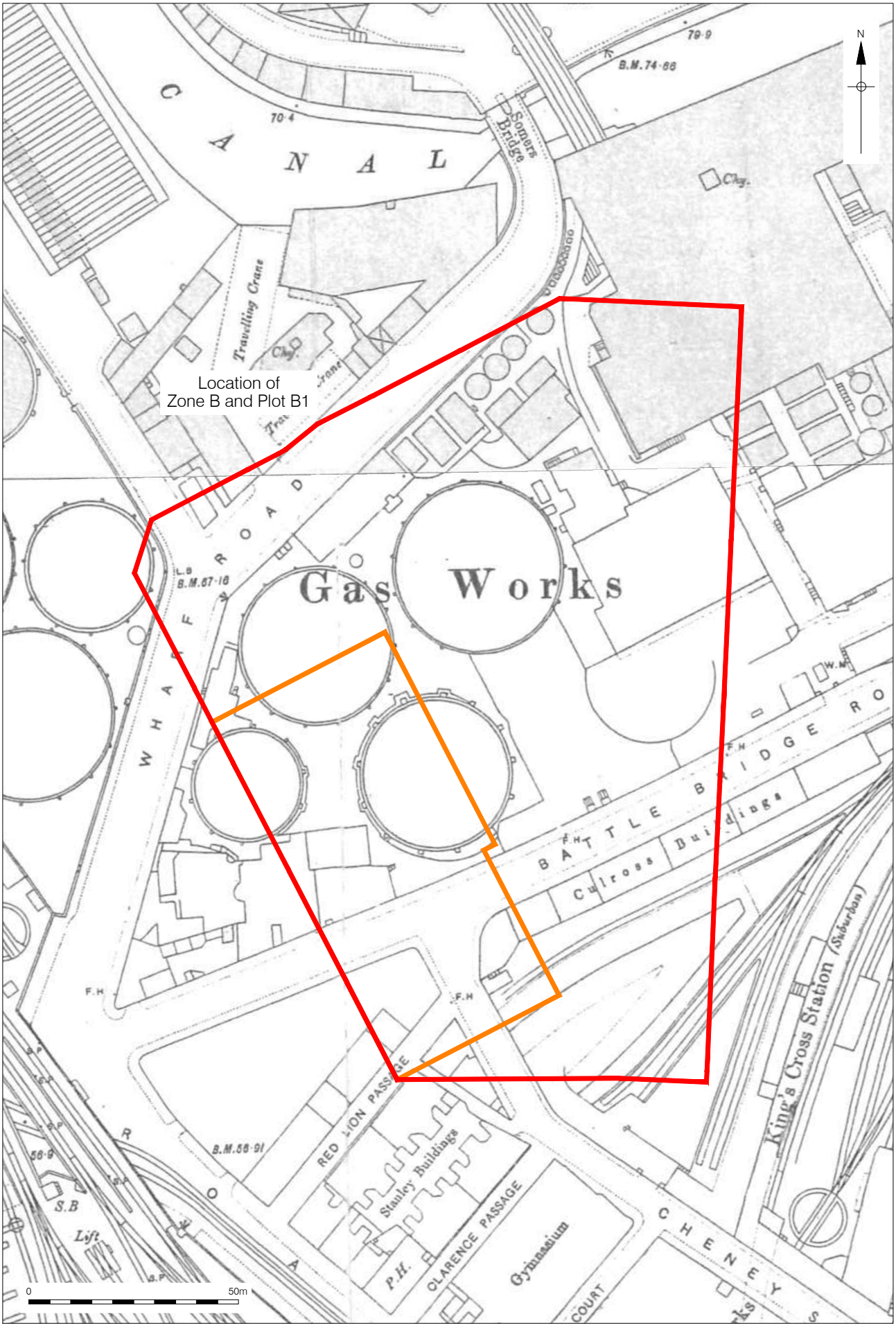
30/11/12 MR

Figure 8
Ordnance Survey First Edition, 1871
1:1,250 at A4



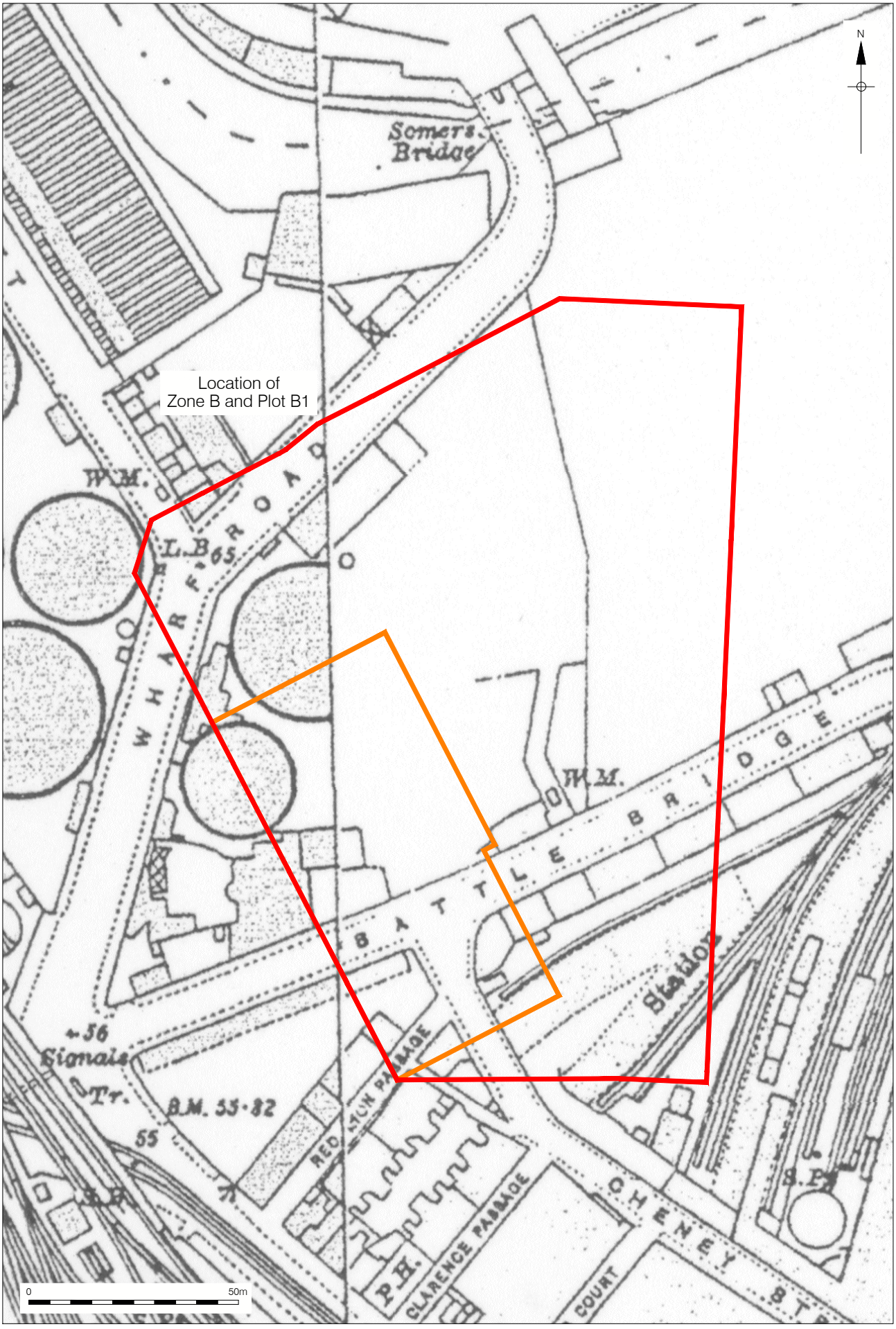
30/11/12 MR

Figure 9
Goad Fire Insurance plan, 1891
1:1,250 at A4



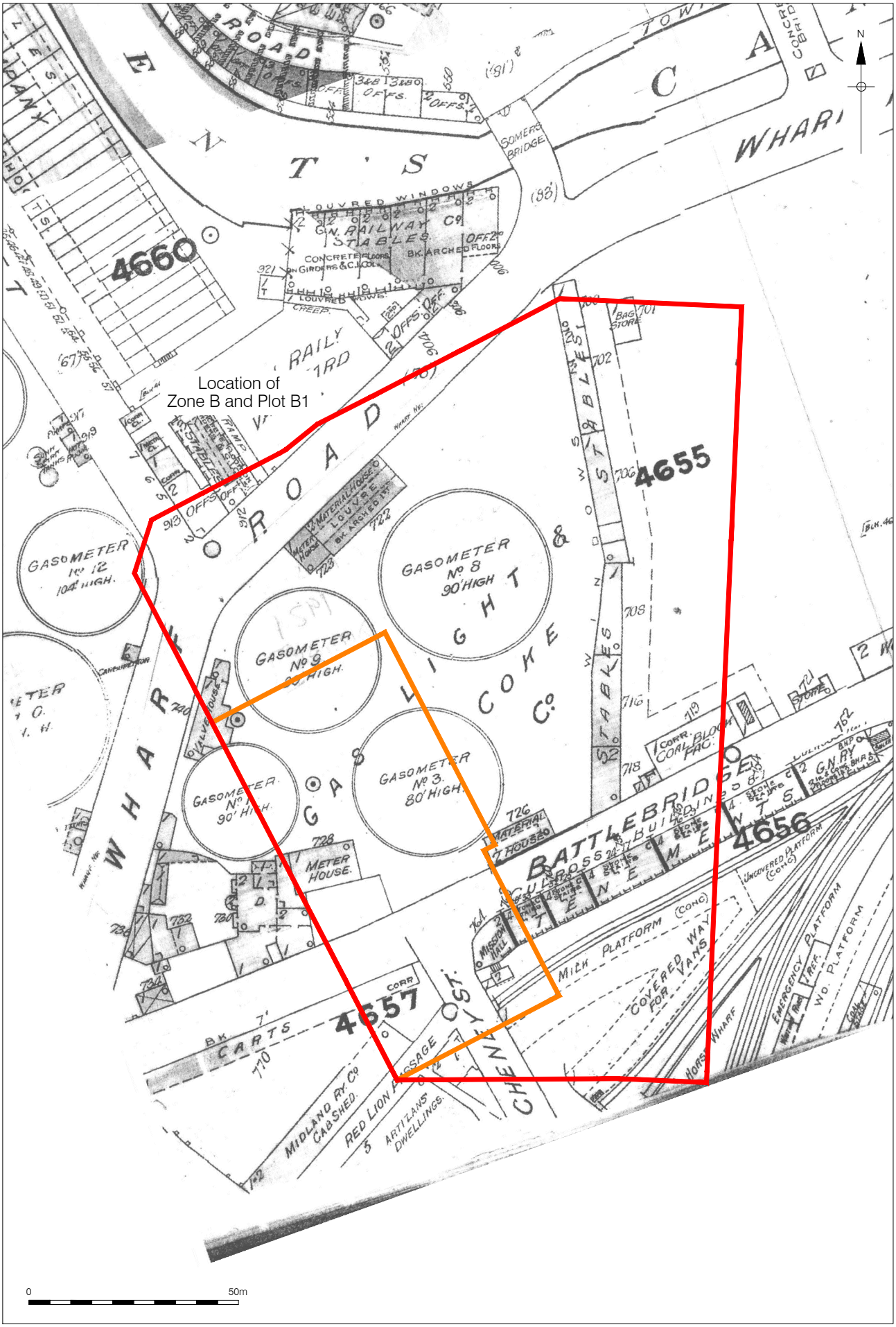
30/11/12 MR

Figure 10
Ordnance Survey Second Edition, 1894-96
1:1,250 at A4



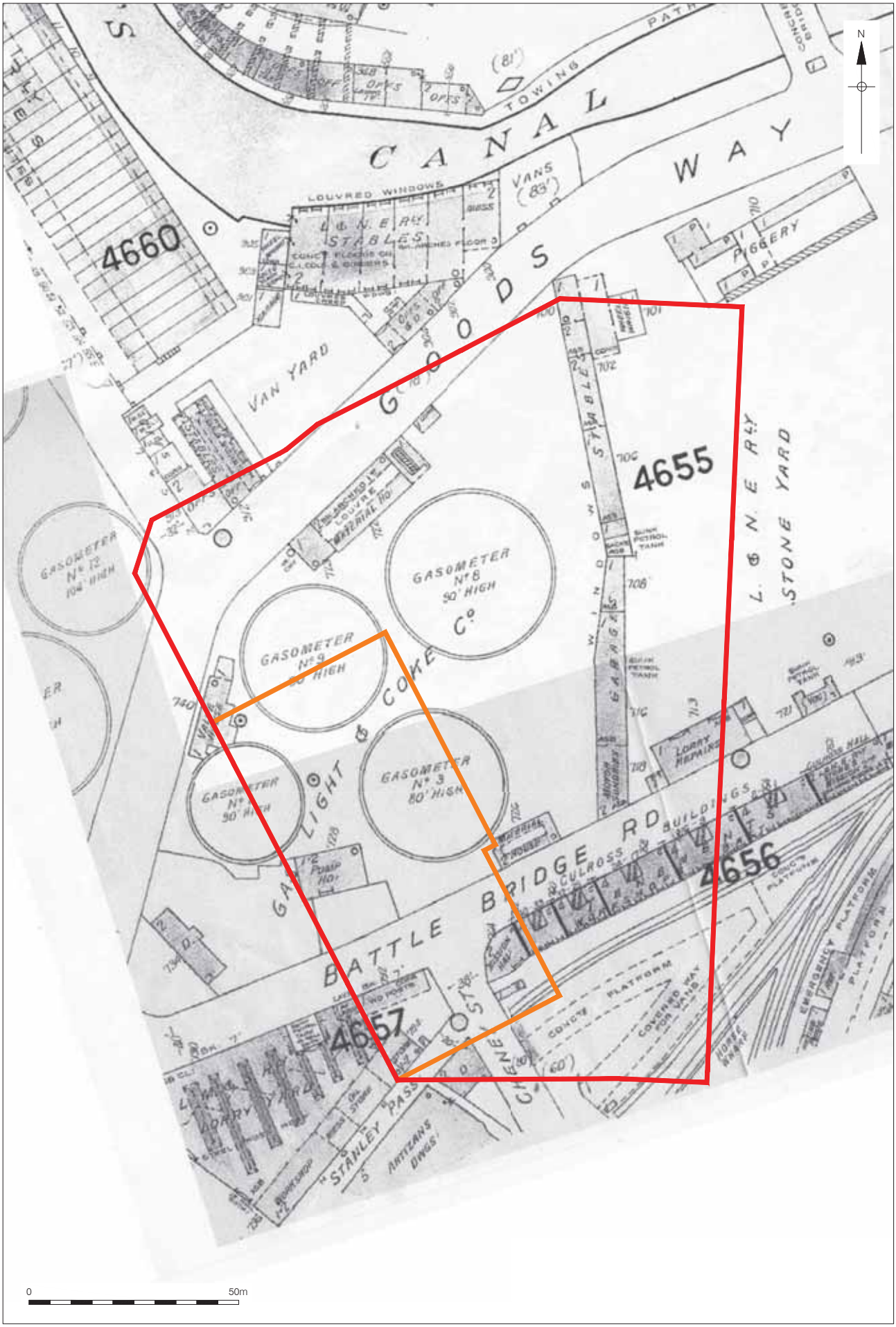
30/11/12 MR

Figure 11
Ordnance Survey map, 1916
1:1,250 at A4



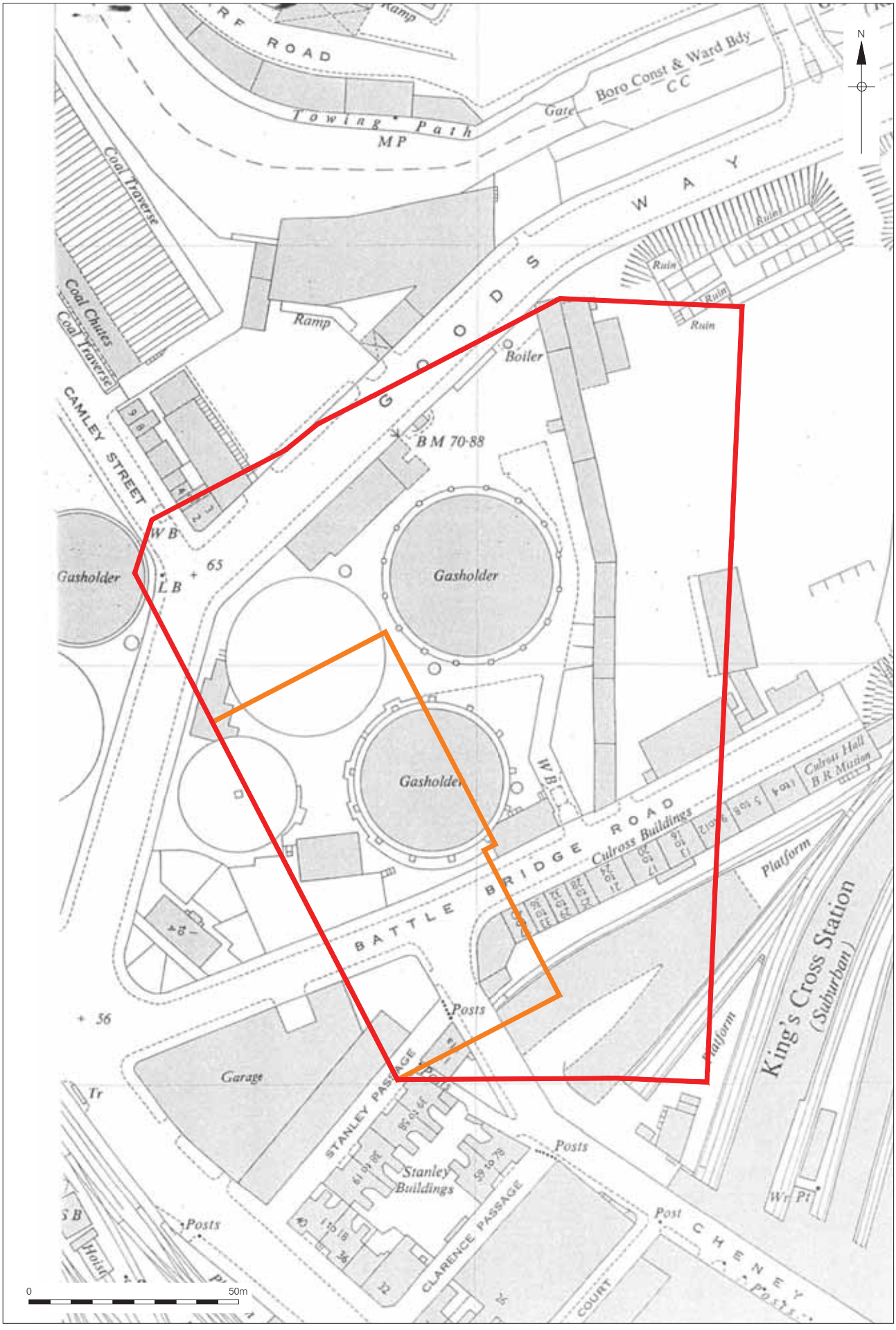
30/11/12 MR

Figure 12
Goad Fire Insurance plan, 1921
1:1,250 at A4



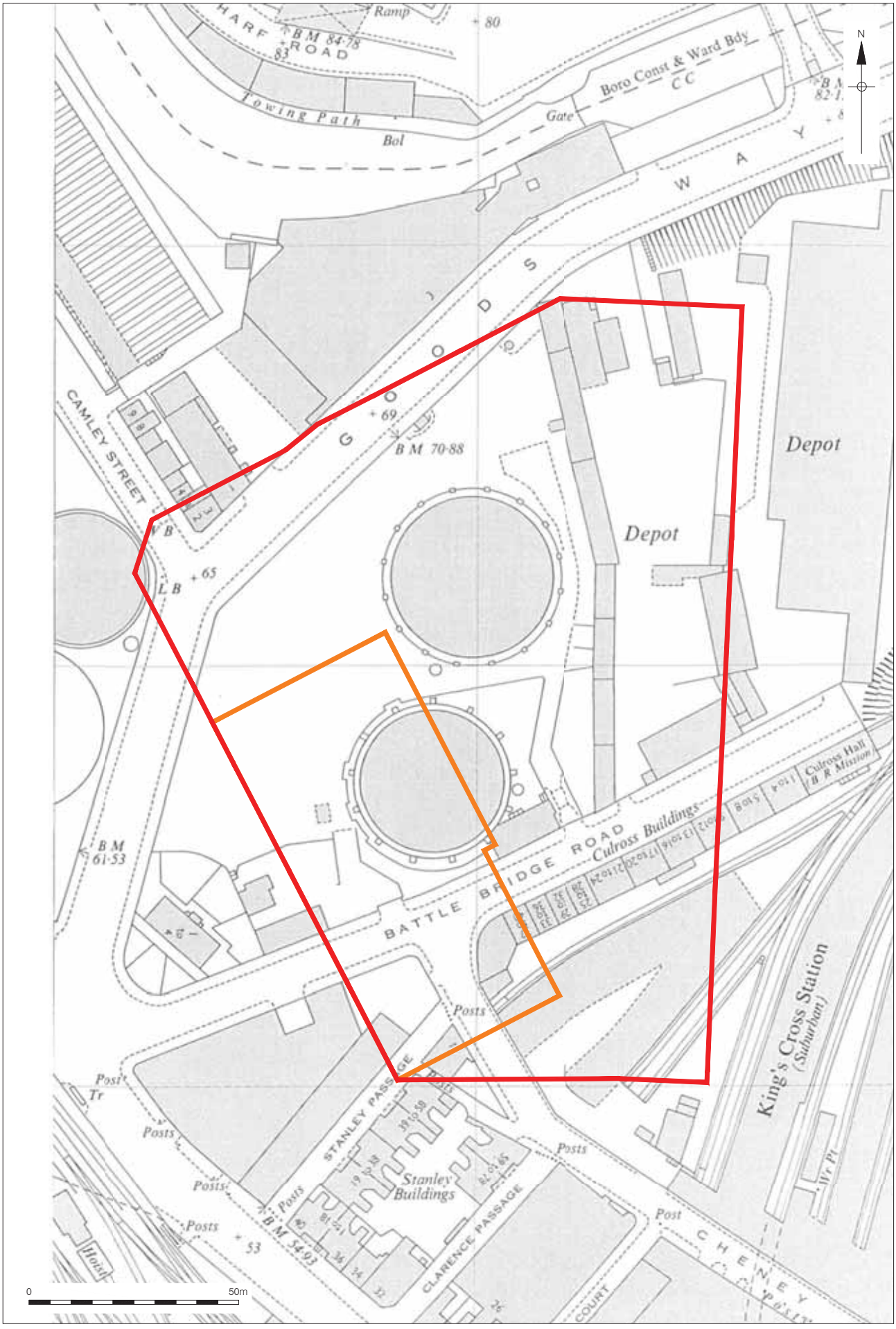
30/11/12 MR

Figure 13
Goad Fire Insurance plan, 1942
1:1,250 at A4



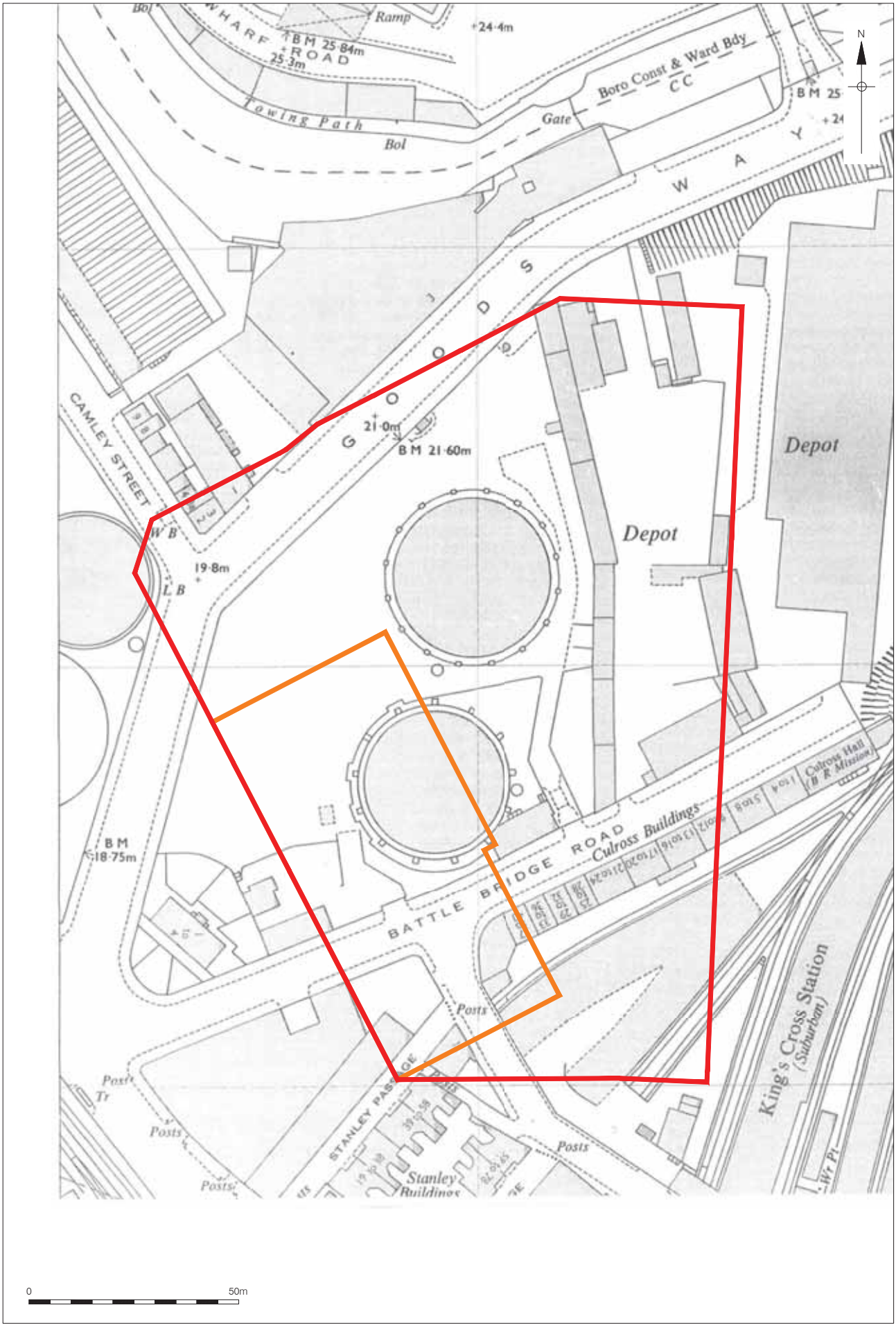
30/11/12 MR

Figure 14
Ordnance Survey map, 1953
1:1,250 at A4



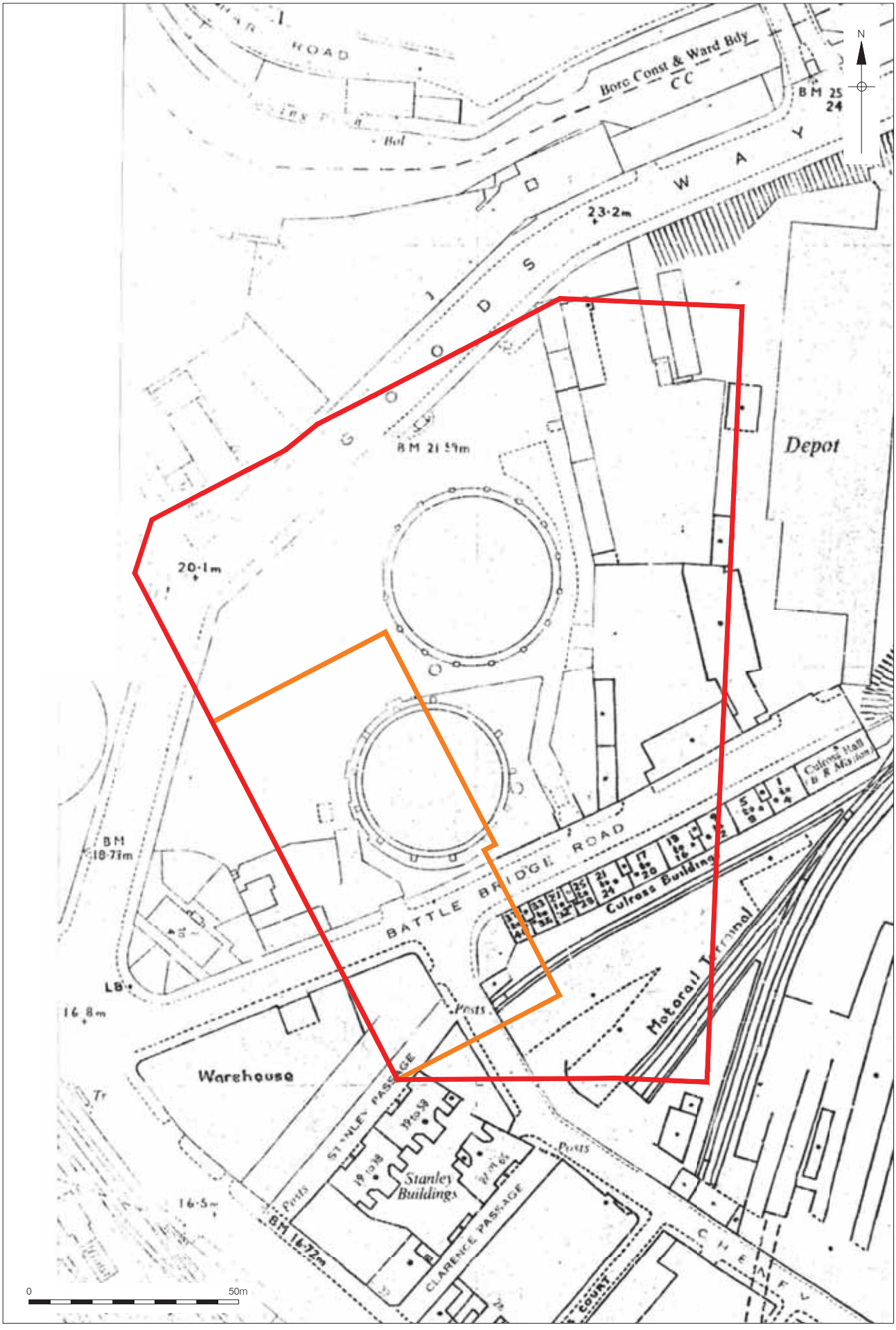
30/11/12 MR

Figure 15
Ordnance Survey map, 1963
1:1,250 at A4



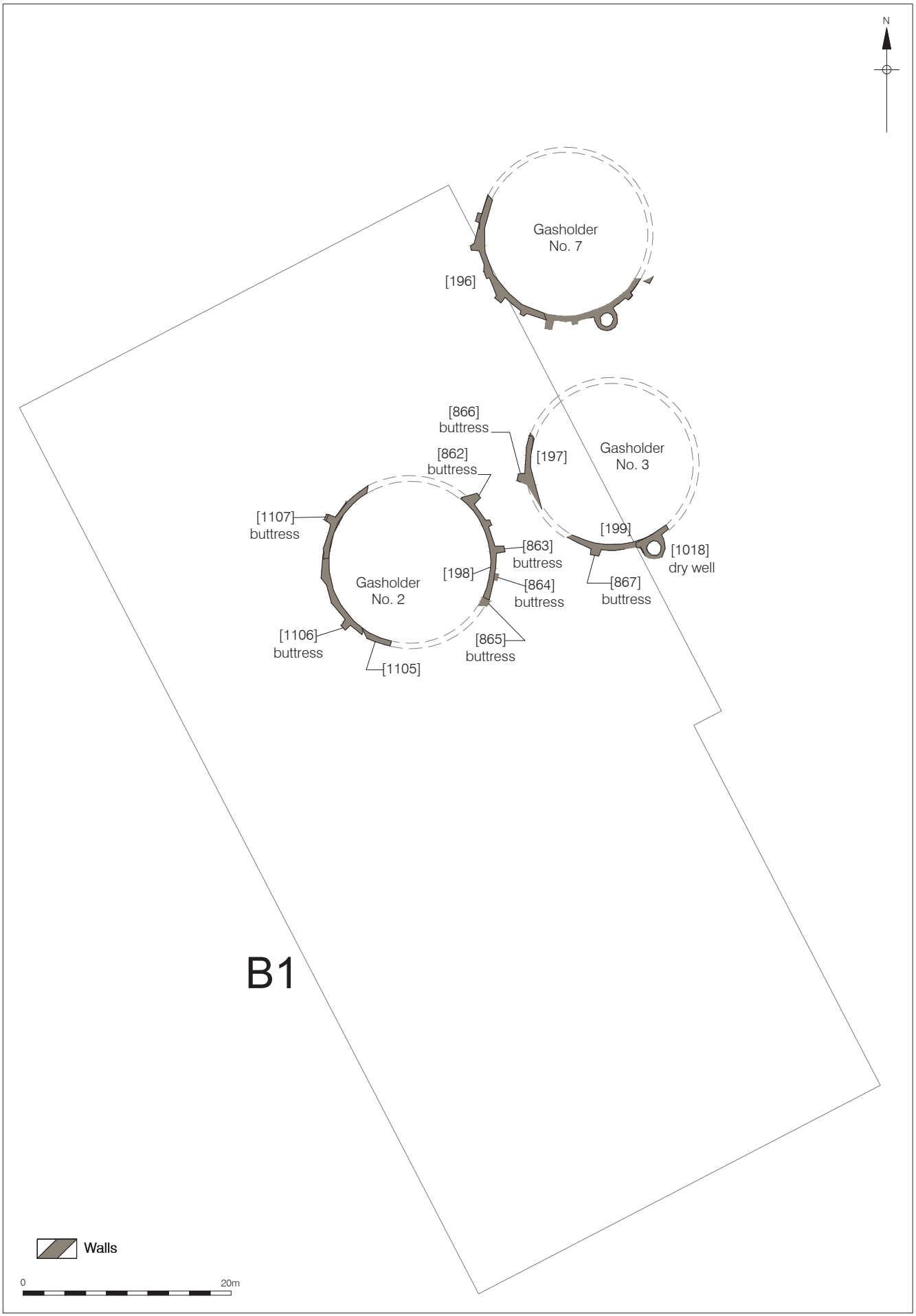
30/11/12 MR

Figure 16
Ordnance Survey map, 1970-75
1:1,250 at A4



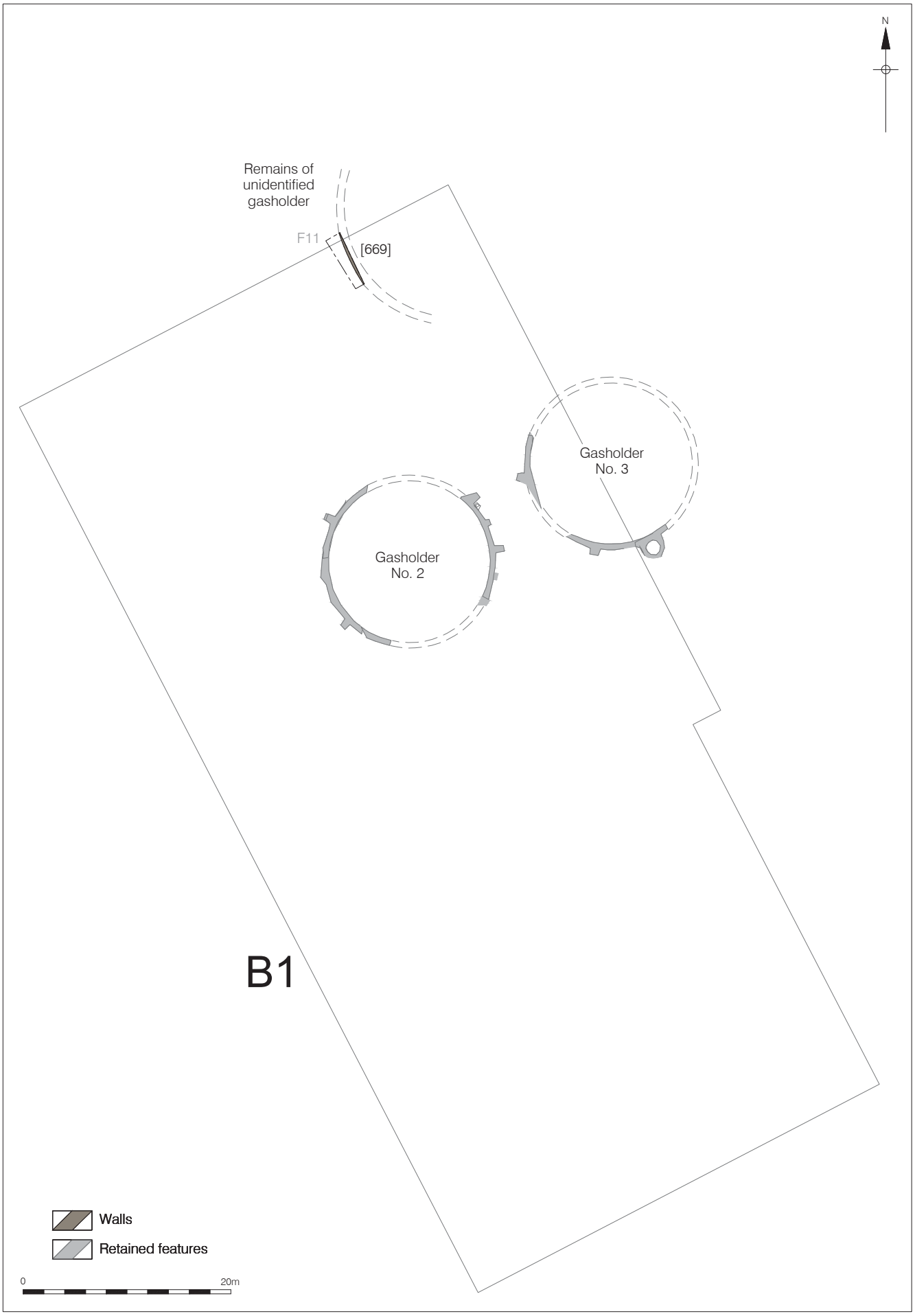
30/11/12 MR

Figure 17
Ordnance Survey map, 1982/1983
1:1,250 at A4



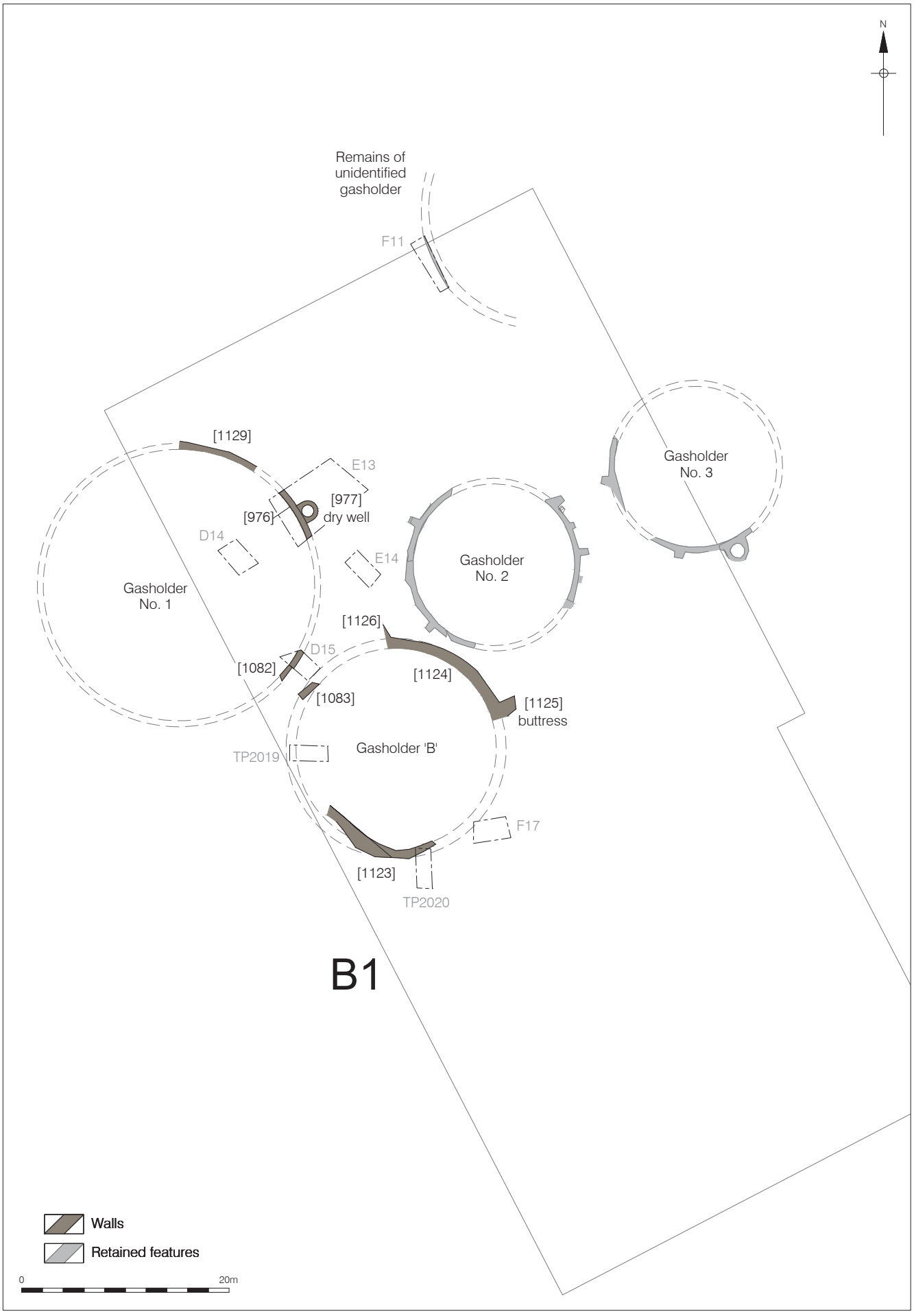
30/11/12 MR

Figure 18
Phase 2b: Early 19th Century (c.1823 - c.1826)
1:500 at A4



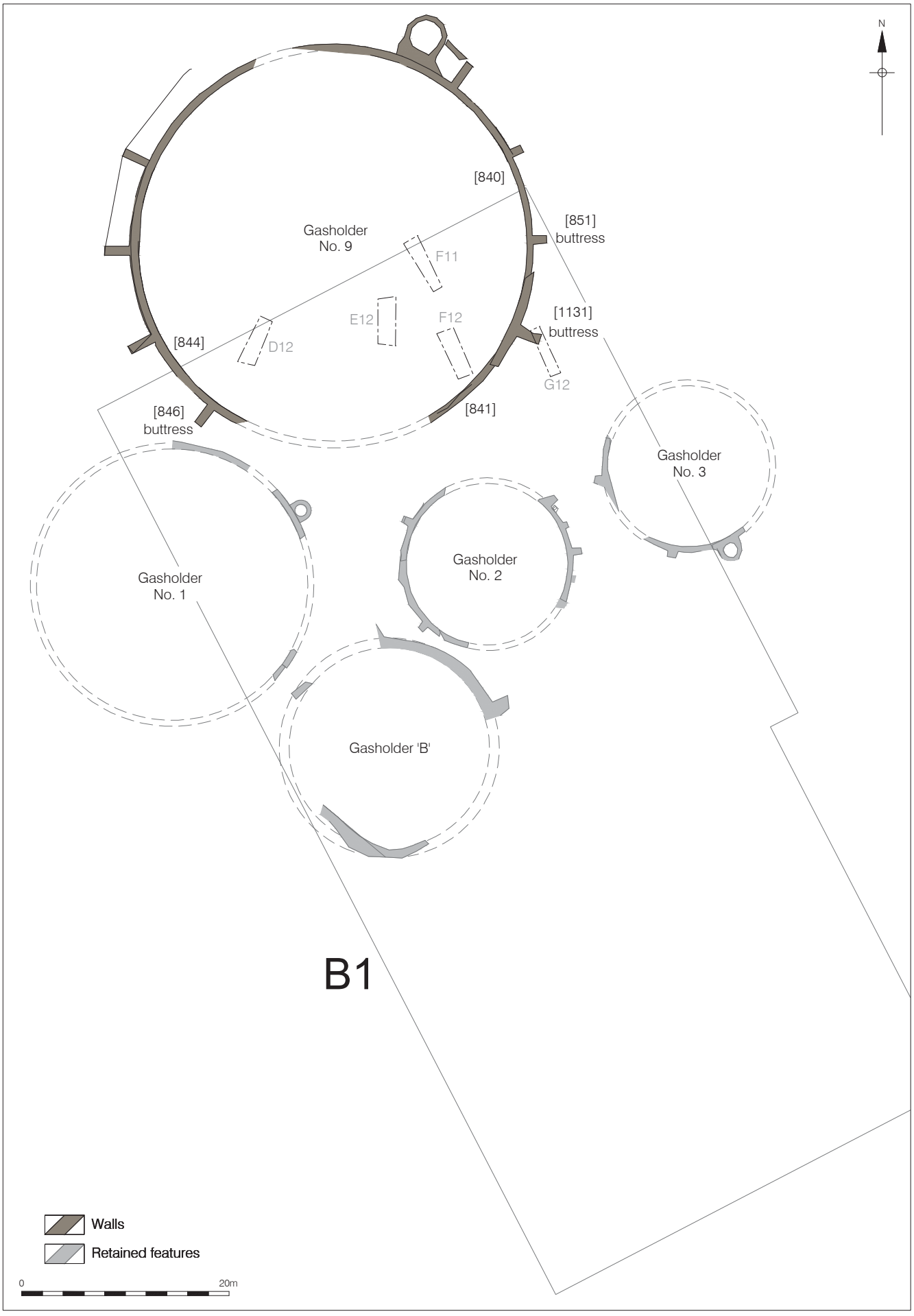
30/11/12 MR

Figure 19
Phase 3a: Early-Mid 19th Century
1:500 at A4



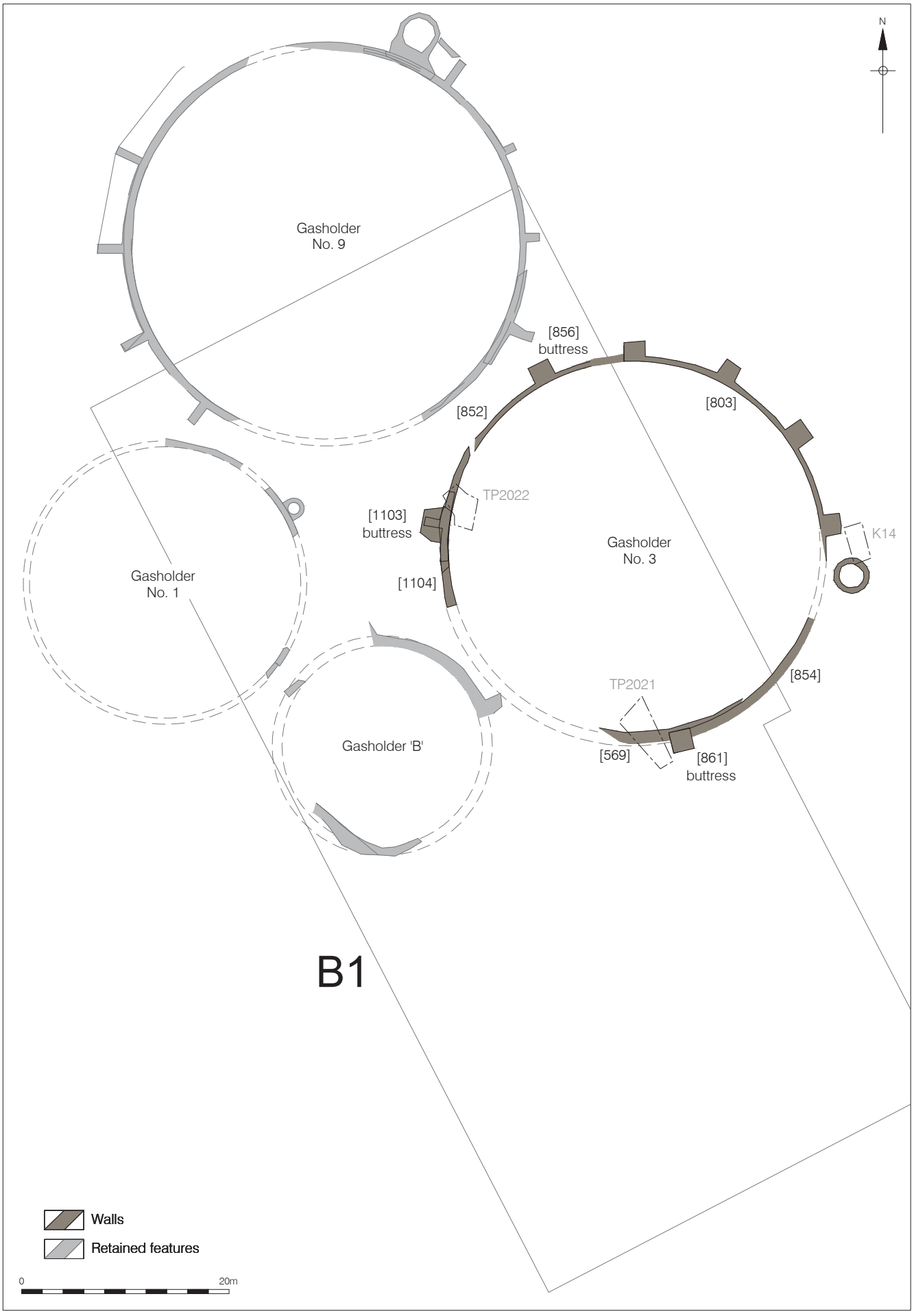
30/11/12 MR

Figure 20
Phase 3b: Early-Mid 19th Century (c.1834-1849)
1:500 at A4



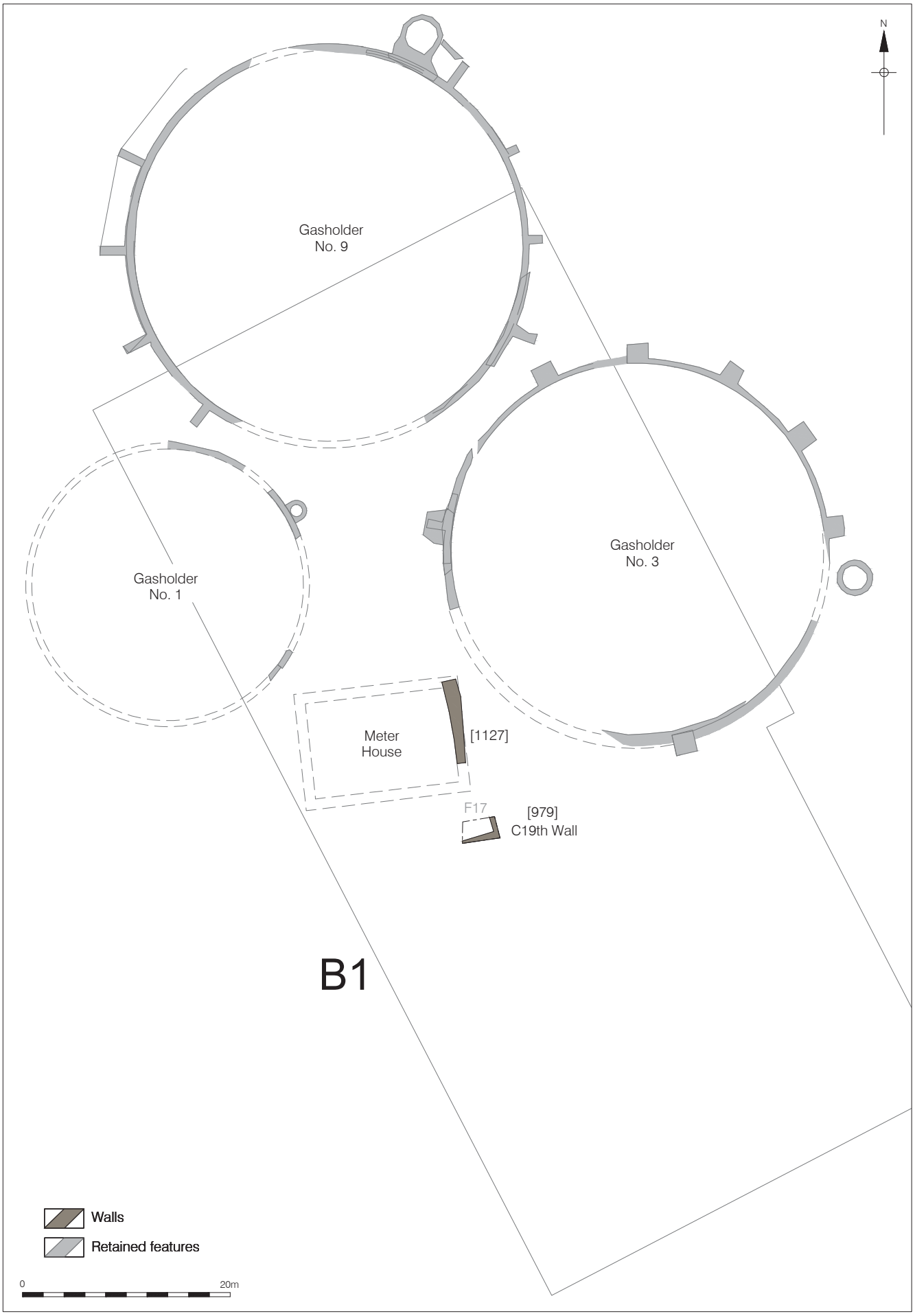
30/11/12 MR

Figure 21
Phase 3c: Early-Mid 19th Century (c.1840-c.1849)
1:500 at A4



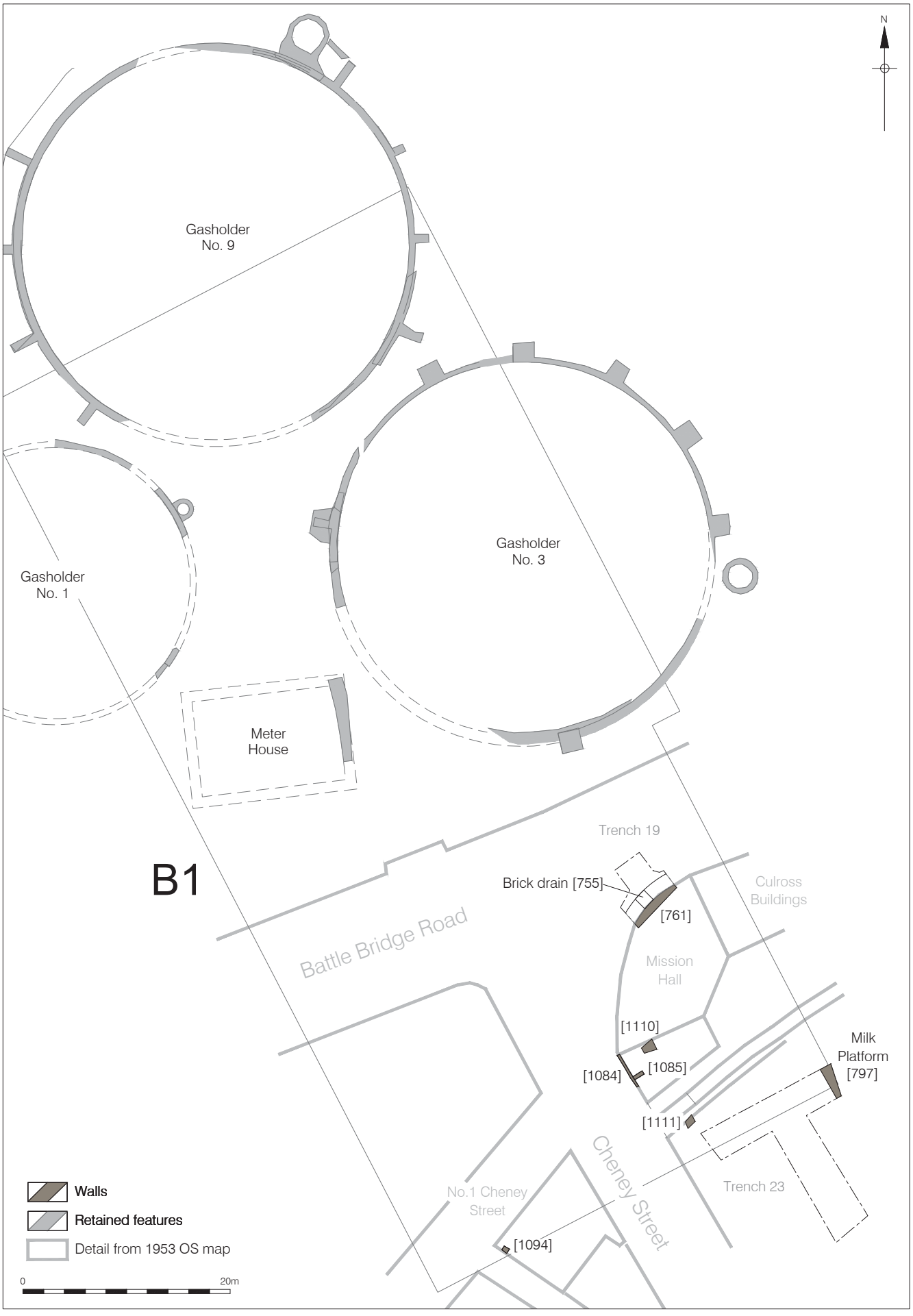
30/11/12 MR

Figure 22
Phase 4: Mid 19th Century (c.1854)
1:500 at A4



30/11/12 MR

Figure 23
Phase 5: Late 19th Century (c.1884-c.1891)
1:500 at A4



30/11/12 MR

Figure 24
Phase 6: The Culross Buildings and the Milk Platform (c.1891-present)
1:500 at A4

P C A

PCA SOUTH
UNIT 54
BROCKLEY CROSS BUSINESS CENTRE
96 ENDWELL ROAD
BROCKLEY
LONDON SE4 2PD
TEL: 020 7732 3925 / 020 7639 9091
FAX: 020 7639 9588
EMAIL: info@pre-construct.com

PCA NORTH
UNIT 19A
TURSDALE BUSINESS PARK
DURHAM DH6 5PG
TEL: 0191 377 1111
FAX: 0191 377 0101
EMAIL: info.north@pre-construct.com

PCA CENTRAL
7 GRANTA TERRACE
STAPLEFORD
CAMBRIDGESHIRE CB22 5DL
TEL: 01223 845 522
FAX: 01223 845 522
EMAIL: info.central@pre-construct.com

PCA WEST
BLOCK 4
CHILCOMB HOUSE
CHILCOMB LANE
WINCHESTER
HAMPSHIRE SO23 8RB
TEL: 01962 849 549
EMAIL: info.west@pre-construct.com

PCA MIDLANDS
17-19 KETTERING RD
LITTLE BOWDEN
MARKET HARBOROUGH
LEICESTERSHIRE LE16 8AN
TEL: 01858 468 333
EMAIL: info.midlands@pre-construct.com