

King's Cross Central Compliance Report Building B1



**BNP PARIBAS
REAL ESTATE**

September 2011

Planning Compliance Report
Plot B1, Kings Cross Central

On behalf of BNP Paribas Real Estate Property Development UK
and King's Cross Central General Partner Ltd

16 September 2011

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Contents

	Page		Page
1 Introduction	4	16 Condition 34 (Development To Be Carried Out In Accordance With Permission – Floorspace Permitted South of the Regent's Canal)	59
2 Condition 6 (Approval of Reserved Matters – General)	14	17 Condition 35 (Development To Be Carried Out In Accordance With Permission – Uses Permitted)	61
3 Condition 14 (Phasing of approvals)	17	18 Condition 36 (Development To Be Carried Out In Accordance With Permission – Uses Permitted)	64
4 Condition 16 (Particulars to Accompany Reserved Matters Applications - Urban Design Report)	21	19 Condition 37 (Basement Floorspace)	66
5 Condition 17 (Particulars to Accompany Reserved Matters Applications - Environmental Sustainability Plan)	23	20 Condition 38 (Basement layout, design access plan)	68
6 Condition 18 (Particulars to Accompany Reserved Matters Applications - Earthworks and Remediation Plan)	27	21 Condition 45 (Development To Be Carried Out In Accordance With Planning Permission – Drainage Infrastructure)	70
7 Condition 19 (Particulars to Accompany Reserved Matters Application - Access Statement)	32	22 Condition 46 (Development To Be Carried Out In Accordance With Planning Permission – Green And Brown Roofs)	71
8 Condition 20 (Particulars to Accompany Reserved Matters Applications – Illustrative Build-out Plan)	34	23 Condition 48 (Development To Be Carried Out In Accordance With Planning Permission – Combined Heat and Power)	73
9 Condition 21 (Particulars to Accompany Reserved Matters Applications – Construction Timetable)	38	24 Condition 49 (Development To Be Carried Out In Accordance With Planning Permission – Car Parking Standards)	74
10 Condition 22 (Particulars to Accompany Reserved Matters Applications – Servicing Strategy)	40	25 Condition 51 (Development To Be Carried Out In Accordance With Planning Permission – Cycle Parking)	77
11 Condition 23 (Particulars to Accompany Reserved Matters Applications - Highways Plan)	42	26 Condition 53 (Gasholder Guide Frames)	79
12 Condition 27 (Details Required by Condition – Floorplans etc.)	44	27 Condition 56 (Archaeology – Archaeological Investigation and Mitigation)	81
13 Condition 28 (Details Required by Condition – Refuse Storage and Collection)	47	28 Condition 60 (Amenity – Plant Noise)	83
14 Condition 31 (Development To Be Carried Out In Accordance With Permission – Parameter Plans and Development Specification)	48	29 Conditions 64 and 65 (Amenity – Volume of Spoil Removal and Lorry Movements)	85
15 Condition 33 (Development To Be Carried Out In Accordance With Permission – Floorspace Permitted Site-wide)	56	30 Conditions 66 and 67 (Amenity – Lorry Movements Importing Infrastructure and Construction Materials)	89
		31 Section 106 Legal Agreement Section I – Community Safety	92
		32 Section 106 Legal Agreement Section GG – Bicycle Storage Facility	94

Appendices

- 1 Site Location Plan
- 2 Schedule of submission drawings
- 3 Archaeological Specification for Watching Brief, IHCM Ltd.
- 4 Written Scheme of Investigation, Pre-Construct Archaeology Ltd.

1 Introduction

- 1.1 Outline planning permission for the mixed use redevelopment of Kings Cross Central was granted on 22 December 2006 (application reference 2004/2307/P) by the London Borough of Camden. This is referred to as the Outline Permission.
- 1.2 The Outline Permission established a zonal masterplan identifying development zones. It set out the permitted disposition of land uses across those zones and parameters for height, bulk and mass of development permitted. These parameters were described in a Development Specification document and associated parameter plans, and assessed in an Environmental Statement. Subsequent detailed proposals that come forward on individual development plots as reserved matters are subject to planning conditions attached to the Outline Planning Permission to ensure that they fall within these approved parameters.
- 1.3 BNP Paribas Real Estate Property Development and King's Cross Central General Partner Ltd are seeking reserved matters approval for the construction of an office building, with retail and other uses at ground and lower ground floor level within Zone B. The site is referred to as Plot B1 and is shown outlined in red on the site location plan attached as Appendix 1.
- 1.4 The purposes of this Planning Compliance Report is to provide the necessary Reserved Matters details referred to in the conditions and specified in the Definitions attached to the Outline Planning Permission in respect of the proposed building at Plot B1, referred to as Building B1. These cover layout, scale, appearance, access and landscaping, except as already established by the relevant Parameter Plans.

This report also addresses other pre-commencement conditions and relevant sections of the s106 Agreement signed on 22 December 2006.

Development Zone B

1.5 Development Zone B is defined on Parameter Plan KXC 05. It is situated to the east of Pancras Road, and will define a new urban square, Pancras Square.

1.6 Zone B is described in Table 2 of the Development Specification. The summary description is:

“Mixed use new development. The principal land uses would be offices (B1) with public health and fitness (use class D2) and shopping/food and drink (A1/A2/A3/A4/A5) uses below. Public health and fitness uses would be partly within basement floorspace. Zone B could also include hotel/serviced apartment accommodation. The application also provides for public bicycle interchange/storage facilities.”

1.7 Table 1 of the Development Specification provides for a maximum of 244,250sqm GEA floorspace in the area south of the Regent’s Canal, of which up to 221,510sqm GEA is to be business and employment space (Class B1).

1.8 Reserved matters approval for the following elements of Zone B has already been granted:

- Zone B basement layout (Reference 2010/0862/P dated 30 April 2010);
- Zone B public realm (Reference 2010/0872/FUL dated 30 April 2010);
- Building B2 (Reference 2010/0862/P, dated 30 April 2010);

- Building B4 (Reference 2008/0868/P, dated 30 April 2010); and
- Building B6 (Reference 2008/0870/P, dated 30 April 2010).

1.9 King's Cross Central General Partner Ltd (KCCLP) has recently submitted details for approval in respect of Building B3 (2011/4090/P). It is soon to submit new proposals for the basement layout and revised proposals for the Zone B public realm.

Proposed Development at Plot B1

1.10 The proposed development. is fully described within Section 1.3 of the Urban Design Report

1.11 The proposed development will occupy the south western part of Zone B. The proposed building will extend north by 96m from a pedestrian access route to the northern side of Development Zone E and the existing German Gymnasium building, between Pancras Road and Pancras Square. It will comprise a basement, and mezzanine basement floor, upper and lower ground floors, and 11 upper floors.

1.12 It will provide 41,035sqm GEA of office floorspace, plus 1,000sqm of Class A1-A5 retail/food and drink space, based on the definitions contained in the footnotes to Table 1 of the Outline Permission.

1.13 The upper floors will solely be in office use.

1.14 The basement of Building B1 will be occupied by plant and servicing facilities, as well as 27 car parking spaces for the occupiers of the office space. Vehicular access to the basement will be provided by a ramp descending from Pancras Road at the northern part of Plot B1. The ramp

will also provide vehicular access to the basement space below the wider Zone B. A separate reserved matters submission in respect of the basement layout is shortly to be made, which will replace the details previously approved under reference 2010/0862/P.

- 1.15 A mezzanine level will be created above the principal basement floor. This will contain 190 cycle storage spaces to serve the building's occupiers, a Metropolitan Police office, to be provided in accordance with Part I clause 21, and Part 2, Section I of the S106 Agreement, storage and related circulation space, and other facilities ancillary to the principal Class B1 office use. There will be direct pedestrian/cyclist access to the cycle storage area from the vehicular ramp.
- 1.16 Due to the east to west fall across the site of approximately 3.80m the proposed development will have a lower ground floor level that fronts onto Pancras Road, and an upper ground floor level that fronts onto Pancras Square.
- 1.17 The principal office entrance will be on the east façade, from Pancras Square, which will access a main lobby at upper ground floor level. There will also be an office entrance from lower ground level on Pancras Road which will be directly connected to the office lobby via escalators.
- 1.18 At lower ground floor level the plans show a public secure cycle parking/storage facility to be provided, in accordance with Part I clause 21 and Part 2, Section GG of the Section 106 Agreement, with a prominent access off Pancras Road. This reflects discussions with Transport for London and LB Camden.
- 1.19 Elsewhere, at upper ground floor level on Pancras Square a mix of retail and restaurant type uses (Class A1-A5) will

be provided to provide activity and interest along these frontages. At least 30% of the retail and restaurant space fronting Pancras Square will be in Class A3 (restaurant) use.

- 1.20 The northern elevation will also have a smaller scale Class A1-A5 kiosk-type retail unit fronting onto the pedestrian through-route between B1 and proposed Building B3 to the north, to ensure this route is appropriately animated.
- 1.21 A further 11 upper storeys of office accommodation will be provided, accessed from dual cores arranged around a central atrium, to ensure that there is flexibility for multiple tenancies either by floor or within floors.
- 1.22 Floors one to seven will extend the full length of the building, providing approximately 3,900sqm floorspace GEA each. Floors eight to eleven will progressively step back from the southern elevation, in response to the height parameters established in the Outline Permission, revealing two roof terraces which will be accessible from the eighth and eleventh floor. These roof terraces will provide planting and accessible decked areas.
- 1.23 The northernmost portions of the tenth and eleventh floors will house a dual height plant room, with louvers rather than glazing on the elevations in this location.
- 1.24 The proposed development has sought to respond to the immediate and wider context, in particular the relationship with the German Gymnasium, Pancras Road, Pancras Square and St Pancras International. The design team has particularly sought to break the mass into four distinct elements expressed in the principal facades, separated by regular “fractures” which emphasise the separate elements and express the main entrance. The steel frame of the

building is expressed in the façade, with the steel emphasising the floor levels on the exterior of the façade. Terracotta is then clad to the exterior to provide a vertical element counterbalancing the horizontality of the metalwork, and to provide texture and shadowing to the glazing. This serves both to create visual interest and to assist in the solar control of the office space through shading.

- 1.25 At the “fractures” delineating the separation between the blocks the façade is indented to accentuate the separation. To further accentuate this sense of separation the structural steel is not expressed externally at these points, and the terracotta cladding gives way to full glazing (with shading for solar control provided by the indent in the facade).

- 1.26 The upper floors, above the principal facades, are set back from the parapet line. The vertical terracotta cladding is replaced by additional steel cladding to create a degree of vertical visual continuity without the use of additional terracotta on the higher levels, which could otherwise become overpowering. Additional glazing is used to extend the fractures up the front the principal facades to the upper floors to ensure that the roof elements read separately rather than forming a unifying roofscape that “flows” over the top of the blocks established at lower levels, thus negating the principle of breaking down the mass of the building into separate vertical elements.

Form and Content of Submission

- 1.27 The details summarised below relate solely to Plot B1, with the proposed development extending to the building envelope.
- 1.28 An updated design for the Zone B basement configuration and amended details for the public realm design of Pancras Square are being brought forward alongside the proposals for Plot B1. These changes are beyond the scope of this submission for Building B1 and are described in separate submissions.
- 1.29 The appropriate completed London Borough of Camden application forms are submitted in accordance with Condition 3 of the Outline Planning Permission. The other conditions that this submission addresses are listed numerically on the application form and are set out with brief summary notes below:-

Condition	Summary Note
6	Reserved matters to include specified details when adjacent to listed
9	Details
10	Landscaping Programme
14	Phasing of approvals
16-23	Reserved matters to include, respectively, Urban Design Report, Environmental Sustainability Plan, Earthworks and Remediation Plan, Access Statement, Illustrative Build-Out Plan, Construction Time-table, Servicing Strategy and Highways Plan.
27	Details of internal floorplans, layouts and floorspace figures.
28	Refuse storage and collection arrangements.
31	Development to follow approved

	Parameter Plans as described in the Development Specification
33-34	Maximum floorspace limits, respectively, for the overall site and the area south of the Regent's Canal.
35 (and Table 1)	Permitted land uses and maximum floorspace for each use within the areas north and south of Regent's Canal.
36 (and Annex)	Maximum floorspace for land use categories within each development zone, within condition 35 maxima.
37	Basement floorspace
38	Basement Uses
45	Peak combined foul and surface water drainage discharge from the whole site.
46	Green and Brown Roofs
48	Incorporation of pipework necessary for connection to district heating/combined heat and power systems.
49 and 51	Car and cycle parking/storage standards respectively.
53	Gas Holder Guide Frames
56	Archaeological works in accordance with approved written scheme of investigation.
60	Noise impact of plant and equipment to meet defined standards.
64-65	Overall movement of spoil off-site (annual volume and lorry movements respectively).
66-67	Overall annual lorry movements for import of infrastructure and construction materials respectively.

Table 1.1: Planning Conditions addressed in reserved matters submission

1.30 A number of relevant conditions have already been discharged by previous submissions and these are not addressed within this Compliance Report. They include:

- Condition 1 – Commencement of development;

- Condition 2 – lapse of planning permission;
- Condition 13 – Phasing of development;
- Condition 14(a) – Phasing of residential and commercial development;
- Condition 55 – Archaeological Recording;
- Condition 59 – Baseline noise monitoring; and
- Condition 68 – Survey of unexploded ordnance.

1.31 As this submission does not include any materially significant landscaping proposals, it is considered that conditions 9 (landscaping details) and 10 (landscaping programme) are not applicable and therefore are not addressed in this report.

1.32 In the remainder of this Compliance Report, each of the relevant conditions is addressed in turn, by providing an account of how the submission satisfies that condition. In some cases, for example the illustrative build-out plan and construction timetable, the relevant information is provided in this report by means of text and plans. In others, compliance is demonstrated by cross-reference to the following free-standing documents submitted with the application:-

- Compilation of scheme layout plans, elevations and sections (listed in Appendix 2);
- Urban Design Report including a response to the relevant Design Guidelines included in the Outline Planning Permission, plus information about car and cycle parking and servicing and the waste and refuse strategy;
- Environmental Sustainability Plan for Plot B1;
- Earthworks and Remediation Plan for Zones B and

E;

- Access Statement for Building B1
- Archaeological Specification and Written Scheme of Investigation for Zones B and E.

1.33 In the Outline Planning Permission, the conditions are presented under a sequence of subject headings and sub-headings. To aid ease of use of this report, the conditions referred to in turn are each accompanied by those corresponding headings.

1.34 In addition, the most relevant parts of the Section 106 Agreement are considered in conjunction with the conditions, specifically, Sections V (Access and Inclusivity), W (Environmental Sustainability), X (Energy), Y (Construction Materials/Waste), Z (Waste) and AA (Water) are addressed alongside conditions 17 and 19, and Section LL (Retail) with Condition 35.

1.35 Sections I and GG of the Section 106 Agreement are considered separately at the end of this report.

2 Condition 6 (Approval of Reserved Matters – General)

2.1 The condition and its reason state:

“In relation to the buildings adjacent to or affecting the setting of listed buildings the Reserved Matters applications shall be supported by the following details:

(a) precise siting of the building where limits of deviation are shown on the Parameter Plans;

(b) all access arrangements;

(c) all elevations within the adjacent to or affecting the listed building;

(d) roof treatments;

(e) external drainage;

(f) all external plant and other equipment;

(g) all infrastructure works associated with the building;

**(h) all public realm works associated with the building;
and**

(i) information that demonstrates how the proposed design and appearance relates in an acceptable manner to all previous Reserved Matters approvals within such buildings (or where development has commenced pursuant to such approvals, the building so commenced) adjacent to or affecting the setting of the listing building.

Reason: In order to safeguard the special architectural and historic interest of the building and to ensure that

the details accord with the assessment in the Environmental Impact Assessment and in accordance with the requirements of policies KC11, B1 and B6 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 6

- 2.2 Condition 6 applies to the Building B1 development on account of its proximity to the listed German Gymnasium, Stanley Building South, St. Pancras Station and King's Cross Station (all designated heritage assets) and, hence, potentially their setting.
- 2.3 To a major extent, the Outline Planning Permission took account of this factor and addressed the requirement for regard to be paid to the setting of the listed buildings through the terms of the approved Development Specification and Parameter Plans. The relevant Parameter Plans have been complied with and in those broad respects the setting of these listed buildings is preserved and, in our view, enhanced in accordance with the statutory duty. This is confirmed by the letter from English Heritage dated 28 November 2005 to LBC which states that the body is **‘satisfied that the outline application as subsequently amended would not harm the setting of nearby listed buildings or the character and appearance of the two conservation areas.’**
- 2.4 The Urban Design Report and the compilation of the submitted scheme plans, elevations and sections together provide the details of the relevant matters listed in condition 6.
- 2.5 The explanatory information in the Urban Design Report demonstrates how the submitted details have further taken

into account the special architectural and historic interest of the aforementioned listed buildings and how these would be preserved or enhanced. English Heritage officers were also in attendance at the Design and Access Forum meeting on 2 August, when the proposals were presented, and were generally content with the proposed design and relationship to the historic context.

2.6 The details provided meet the requirements of condition 6.

3 Condition 14 (Phasing of approvals)

3.1 The condition and its reason state:-

“Unless otherwise agreed in writing by the local planning authority and subject to condition 13, applications for approval of Reserved Matters and/or details pursuant to conditions in compliance with this permission shall be made to the local planning authority in accordance with the following provisions:

(a) Application for approval of the Reserved Matters and/or details pursuant to conditions relating to not less than 70,000 sq metres gross external area of built accommodation shall be made to the local planning authority before the expiration of the three years from the date of this permission;

(b) Application for approval of the Reserved Matters and/or details pursuant to conditions relating to not less than a further 70,000 sq metres gross external area of built accommodation shall be made to the local planning authority before the expiration of six years from the date of this permission, bringing the total building space for which Reserved Matters applications have been submitted to not less than 140,000 sq m gross of built accommodation;

(c) Application for approval of the Reserved Matters and/or details pursuant to conditions relating to not less than a further 70,000 sq metres gross external area of built accommodation shall be made to the local planning authority before the expiration of nine years from the date of this permission, bringing the total building space for which Reserved Matters applications have been submitted to not less than

210,000 sq m gross of built accommodation;

(d) Application for approval of the reserved Matters and/or details pursuant to conditions relating to not less than a further 70,000 sq metres gross external area of built accommodation shall be made to the local planning authority before the expiration of twelve years from the date of this permission, bringing the total building space for which Reserved Matters applications have been submitted to not less than 280,000 sq m gross of built accommodation;

(e) Application for approval of the reserved Matters and/or details pursuant to conditions relating to not less than a further 70,000 sq metres gross external area of built accommodation shall be made to the local planning authority before the expiration of twelve years from the date of this permission, bringing the total building space for which Reserved Matters applications have been submitted to not less than 280,000 sq m gross of built accommodation;

(f) Application for approval of the reserved Matters and/or details pursuant to conditions relating to not less than a further 70,000 sq metres gross external area of built accommodation shall be made to the local planning authority before the expiration of eighteen years from the local planning authority bringing the total building space for which Reserved Matters applications have been submitted to not less than 420,000 sq m gross external area of built accommodation.

Provided that reapplications or variations in relation to the same built accommodation which has already been the subject of previous application for and approvals of Reserved Matters shall not count towards compliance

with the phasing of the submissions as set out in (a) to (f) above.

Reason: To ensure a comprehensive and sustainable development to achieve regeneration, integration and good design, in accordance with the Environmental Impact Assessment, in accordance with policies S1, S2, S3, SKC1, SKC2, SKC3, KC1 and SD6 of the London Borough of Camden Replacement Unitary Development Plan 2006.

Response to Condition 14

- 3.2 Since Outline Permission was granted in December 2006, applications have been made for approval of Reserved Matters in respect of built accommodation on the Eastern Goods Yard site, the Great Northern Hotel and within plots R2, T1, R4, B2, B4, B6, J and R5 North. In addition, full planning permission has been granted for student housing on Plot T6. An application for reserved matters approval for Plot B3 is currently pending determination.
- 3.3 The quantities of floorspace, as gross external area, are set out in Table 3.1 overleaf.

Site	Application Reference No.	Approval Date	Floorspace
Eastern Goods Yard	2007/5228/P	8 April 2008	55,190
Building R2	2008/5052/P	22 January 2009	48,522
Subtotal (70,000m² by Dec 2009)			103,712
Building T1	2009/0415/P	24 April 2009	29,045
Building R4	2010/0389/P	15 April 2010	11,761
Subtotal (140,000m² by Dec 2012)			144,518
Building B2	2010/0864/P	29 April 2010	7,098
Building B4	2010/0868/P	29 April 2010	16,824
Building B6	2010/0870/P	29 April 2010	20,853
Great Northern Hotel	2010/3304/P	3 September 2010	4,548 ¹
Building T6	2010/4468/P	11 January 2011	16,292 ²
Subtotal (210,000m² by Dec 2015)			210,133
Building J	2010/6688/P	11 March 2011	16,265
R5 North	2011/0431/P	8 April 2011	14,237
Building B3	2011/4090/P	Pending	20,404
Subtotal (280,000m² by Dec 2018)			
<i>Building B1</i>			<i>43,192</i>
Total floorspace submitted/approved to date			304,041

Table 3.1: Floorspace submitted / approved to date

¹ This figure includes the additional 20m² approved in the later submission for minor amendments to the Great Northern Hotel scheme with reference 2011/0049/P.

² This figure represents the floorspace below the outline parameter height of 67m AOD as per the S106 Agreement dated 11 January 2011.

4 Condition 16 (Particulars to Accompany Reserved Matters Applications - Urban Design Report)

4.1 The condition and its reason state:-

“Relevant applications for approval of Reserved Matters submitted pursuant to this permission relating to the design of new buildings and to the landscaping of the public realm shall be accompanied by an urban design report which explains the underlying approach of the design and explains how it addresses each of the relevant Design Guidelines.

Reason: To ensure a comprehensive and sustainable development and to achieve good design throughout the development, including protection of the setting of listed buildings and the preservation or enhancement of the character or appearance of conservation areas in accordance with the Environmental Impact Assessment, in accordance with policies B1, B2, B6, B7 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 16

4.2 This condition is addressed by the separate Urban Design Report included with this submission. It demonstrates the underlying approach to the design and how the relevant Design Guidelines in the Outline Planning Permission, including those relating to neighbouring listed buildings, have been observed.

4.3 The scope of the submitted Urban Design Report, however, is broader than this. It also covers the Servicing, Waste and Refuse strategy for the building and outlines the

- 4.4 provision of cycle and car parking within the scheme.
- 4.5 The Urban Design Report is submitted to meet the requirements of condition 16. It follows the scope of Urban Design Reports submitted in respects of Plots B2, B4 and B6 and explains the proposed building's layout, form, design and external appearance, both in general and in key views, and considers the building in the context of the urban design guidelines attached to the outline permission at Annex 1.
- 4.6 The report describes how the building will be of very high quality architectural design and will contribute to the character and quality of the development and wider area.

5 Condition 17 (Particulars to Accompany Reserved Matters Applications - Environmental Sustainability Plan)

5.1 The conditions and its reason state:-

“Relevant applications (or groups of related applications) for approval of Reserved Matters in respect of buildings shall be accompanied by an Environmental Sustainability Plan. The Environmental Sustainability Plan shall explain:

- a) how the proposed building design(s) realise(s) opportunities to include design and technology energy efficiency measures;**
- b) the reduction in carbon emissions achieved through these building design and technology energy efficiency measures, compared with the emissions permitted under the national Building Regulations prevailing at the time the application(s) for approval of reserved matters are submitted;**
- c) the specification for any green and/or brown roofs;**
- d) how energy shall be supplied to the building(s), highlighting;**
 - i. how the building(s) relate(s) to the site-wide strategy for district heating incorporating tri-generation from distributed combined heat and power;**
 - ii. how the building(s) relate(s) to the strategy for using biofuel boilers to supplement the energy supplied through district heating**

systems;

iii. the assessment of the cost-effectiveness and reliability of the supply chain for biofuels; and

iv. any other measures to incorporate renewables.

e) how the proposed building(s) have been designed to achieve a BREEAM and/or Ecohomes rating of "very good" (or an equivalent assessment method and rating) or better; and

f) the incorporation of bird boxes, bat roosts and other wildlife features on buildings.

Reason: To ensure a comprehensive and sustainable development and to achieve good design through the development in accordance with the Environmental Impact Assessment, in accordance with policies SKC1, KC8, B1, N7, and SD9 of the London Borough of Camden Replacement Unitary Development Plan 2006."

Response to Condition 17

5.2 This submission includes a separate Environmental Sustainability Plan which addresses each of the factors listed in the condition and demonstrates that the proposed development achieves very high standards of sustainability.

5.3 The Environmental Sustainability Plan demonstrates that the building has been designed to achieve a very high standard of sustainability, and is predicted to achieve an "Excellent" BREEAM rating. Its design encompasses extensive passive design measures to reduce energy use and reduce solar gain and energy efficient plant systems. It

is expected that these will enable the building to achieve a 12.5% reduction in carbon emissions from Part L of the Building Regulations 2010. Overall, when the connection to the district-wide, low carbon energy system is taken into account, the building is expected to reduce its carbon emissions by 21.5% from 2010 Part L.

- 5.4 Although Building B1 will not be within a priority location for green/brown roofs biodiverse brown roofs totalling approximately 1227sqm will nonetheless be provided.
- 5.5 Building B1 will be connected to the site wide low carbon energy network, which will supply the building's heating and hot water demands. The electricity generated by the site's energy centre, at Plot T1, will offset an estimated 79% of electricity consumption across the KXC site.
- 5.6 Bird and bat boxes will be designed for Building B1 to meet the needs of species such as swallows, black redstarts and pipistrelle bats, to be positioned away from external lighting and publicly accessible areas.
- 5.7 The report at the same time provides information to:-
 - Satisfy conditions 45 and 48 concerned with drainage infrastructure and connection to the district heating system/combined heat and power systems, respectively; and
 - Show how Building B1 responds to the obligations set out in Sections W, Y, Z and AA of the Section 106 Agreement. These sections deal, generally, with environmental sustainability and observance of the site-wide Environmental Sustainability Strategy and Energy Assessment and, specifically, construction materials and waste, operational waste and water efficiency and sustainable drainage, including the

provision of adequate details in reserved matters submissions to demonstrate that the obligations under these sections have been met.

- 5.8 The Environmental Sustainability Plan is submitted to meet the requirements of condition 17.

6 Condition 18 (Particulars to Accompany Reserved Matters Applications - Earthworks and Remediation Plan)

6.1 The condition and reason state:-

“Relevant applications (or groups of related applications) for approval of Reserved Matters shall be accompanied by an Earthworks and Remediation Plan to deliver appropriate site levels and ground conditions for that part of the development and demonstrate compliance with conditions 64 and 65. All works shall be carried out in accordance with the Earthworks and Remediation Plan as approved.

Reason: To ensure the development is carried out in accordance with the assessment and conclusions of the Environmental Impact Assessment, in accordance with policies SD1 and SD10 the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 18

6.2 The information to satisfy Condition 18 is included in the Earthworks and Remediation Plan ('ERP') which forms part of this submission. This document explains the work proposed to achieve appropriate site levels and ground conditions, including decontamination, for Development Zone B as a whole. It also identifies the net quantities of spoil needing to be removed from Zone B as a result of the earthworks strategy described in the Plan.

6.3 An earlier ERP for Development Zones B and E was submitted and approved in April 2010 as part of the Reserved Matters submissions for Buildings B2, B4 and B6, the Zone B public realm and the shared Zone B basement ('the 2010 ERP'). The submitted ERP updates the 2010 ERP in respect of earthworks and remediation

within Development Zone B only, reflecting new data from recent site investigations works and the revised development programme for Zone B.

- 6.4 The ERP has already been submitted for information as part of an 'Enabling Works' application for certain site preparation works within Zone B (application reference 20113564/P, recently approved) and for Building B3 (application reference 2011/4090/P). As well as this submission for B1, it will also be resubmitted for approval alongside Reserved Matters submissions for a revised basement and subsequently for Building B5.
- 6.5 Since the original shared Zone B basement was approved in April 2010, there has been occupier interest in other plots within Zone B, notably B1, the subject of this submission, and in B3 to the north. Subject to the approval of Reserved Matters, construction of these buildings is anticipated to commence in 2012. Works on Buildings B2 and B4, which already have Reserved Matters approval, are likely to start at around the same time or earlier. The consolidation of these buildings into a single phase of construction has prompted a review of the basement design to allow the development and the public realm of Pancras Square to be brought forward more quickly. A number of options have been explored that are consistent with the approved concept of individual building service areas accessed by a single ramp and vehicular route and the design that is now coming forward relies on a more extensive excavation and a podium structure. The earthworks and remediation strategies set out in the submitted ERP have been developed to take account of both the approved shared Zone B basement and the emerging future podium design.
- 6.6 The contents of the submitted ERP represent a comprehensive approach to the earthworks and remediation across Zone B and thereafter, enable a

similarly comprehensive approach to the construction and delivery of the buildings and basement. The proposed works not only contemplate the previously approved schemes for the Zone B public realm, shared basement and Buildings B2, B4 and B6, but also a package of early Enabling Works to facilitate the construction of the basement and the remaining Zone B buildings. These Enabling Works are the subject of a recent approval (reference 2011/3564/P) and they are described in more detail in Section 4.2.2 of the ERP. They can be summarised, in so far as they relate to Plot B1, as:

- Removal and stockpiling/disposal of existing surface finish materials;
- A site-strip to locate the remnant gasholders and verify their positions and condition (in particular, those that have been interpreted primarily from historic maps);
- Removal and demolition of the existing Gas Governor;
- Excavation to basement formation levels, including dewatering of the gas holder bases and removal and/or remediation of redundant gasworks structures and contaminated soils above basement formation level;
- Construction of retaining walls associated with the buildings and basement, and securing land during excavation works; and
- Remediation and/or over-excavation of the redundant structures (including gasholder structures) and contaminated soils beneath basement formation levels.

6.7 In addition, the follow further earthworks will be required for Building B1, as described in Section 4.2.3 of the ERP:

- Commissioning of new Gas Governor on Development Zone V.
- Decommissioning of existing Gas Governor on Plot B1 and removal of associated plant.
- Dewatering of gasholders 1, 3, 9 and B. This may be staged to reflect the nature of the material within the gasholder bases and phase of the construction programme.
- Installation of a piled retaining wall around the western and southern boundaries of Plot B1.
- Completion of the excavation to basement formation level, including the full removal of structures relating to gasholders B, 3 and 9 (to the extent the latter sits within the B1 footprint).
- Over-excavation below the Plot B1 basement level to remove all contents and structures remaining below the footprint relating to gasholders 1, 3, 9 and B. 'Cut-off' wall installed along B1/Pancras Road boundary in respect of Gasholder No.1.
- Backfilling of the over-excavated areas below the basement footprint in controlled lifts with clean, engineered London Clay.
- Foundation piling for Building B1.

6.8 The proposed finished floor levels within Building B1 would be at 17.20m AOD at the lower ground floor level entrance on Pancras Road and 20.95m AOD at the Pancras Square entrance. This will be consistent with Parameter Plan KXC 012 Rev T and provide suitable gradients for adjacent roadways and paths.

6.9 The ERP estimates that the B1 basement and service area would give rise to approximately 45,260m³ of excavation,

principally made ground and London Clay, if a podium based design was adopted.

- 6.10 The Earthworks Remediation Plan is therefore provided to meet the requirements of Condition 18 and is submitted for approval.

7 Condition 19 (Particulars to Accompany Reserved Matters Application - Access Statement)

7.1 The condition and its reason state:-

“Relevant applications for approval of Reserved Matters pursuant to this permission shall be accompanied by an access statement. Each access statement shall:

- a) address the relevant design principles set out in the Access and Inclusivity Strategy dated September 2005;**
- b) highlight any areas where technical or other constraints have prevented or constrained the application of these design principles; and**
- c) include a project programme for that building or phase, to identify the key stages at which important decisions affecting inclusivity and accessibility will be made.**

Reason: To ensure a comprehensive and sustainable development and to achieve good design through the development in accordance with the Environmental Impact Assessment, in accordance with policies SD1, B1, B2, T3, KC6, KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 19

7.2 A separate Access and Inclusivity Statement for Plot B1 forms part of this submission. This demonstrates compliance with the condition requirements, including how the principles set out in the site-wide Access and Inclusivity Strategy have been applied in the design of Plot B1.

- 7.3 In accordance with Section V of the Section 106 Agreement, the evolution of the Building B1 scheme and the preparation of the Access and Inclusivity Statement have been guided by the applicant's designated Inclusive Design Champion, James Holmes-Siedle of All Clear Designs Ltd. The Champion body has extensive experience of the KXC development, from its inception through to the Reserved Matters submissions made and approved to date.
- 7.4 The Access and Inclusivity Statement sets out the measures and design approach adopted to create an accessible and inclusive environment, and describes the measures that will be incorporated within the proposals to facilitate access and use by all people including disabled people, and indicates how the design meets the required design standards, planning policy and good practice guidance.
- 7.5 The Access and Inclusivity Statement is submitted to meet the requirements of condition 19.

8 Condition 20 (Particulars to Accompany Reserved Matters Applications – Illustrative Build-out Plan)

8.1 The condition and its reason state:-

“Relevant applications for approval of Reserved Matters shall be accompanied by an illustrative build out plan showing:

- a) the disposition of any buildings for which approval has been given and the take-up through those approvals of the land uses permitted by this planning permission;**
- b) the disposition of any buildings for which approval of Reserved Matters is sought and how the approved uses are to be incorporated in these buildings;**
- c) how the Development Zones within which buildings for which approval has been given under (a) and those for which approval has been sought under (b) above, may be built out and completed in conformity with this planning permission;**
- d) development zones (or part thereof) for which buildings have yet to come forward for approval of Reserved Matters;**
- e) the status of each area of Principal Public Realm, the phasing of development and its date of adoption or target date of adoption (where appropriate);**
- f) demonstrate ongoing provision of green and brown roofs in accordance with condition 46; and**
- g) the relationship between the buildings/development**

referred to in (a), (b), (c), (d) and (e) above.

Reason: To ensure a comprehensive and sustainable development and to achieve regeneration, integration and good design in accordance the Environmental Impact Assessment, in accordance with policies S1, S2, 53, SKC1 and KC8, of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 20

- 8.2 An Illustrative Build-out Plan is presented on the following page, addressing the subsections of the condition.
- 8.3 In respect of 20(a) above, the plan shows the buildings for which approval has already been given (coloured red), these being the Eastern Goods Yard, Building J, Building R2, Building R4, Building R5, Building T1, Building T6, Building B2, Building B4 Building B6, the Gas Governor in Development Zone V, and the refurbishment of the Great Northern Hotel.
- 8.4 A submission for reserved matters approval for Building B3 was made in August 2011 but has not yet been determined.
- 8.5 Construction works for the Eastern Goods Yard and for Building T1 (specifically the Energy Centre), are now complete, and works are underway on Plots R4, R5 and T6. The Zone B Enabling Works are also underway, following the recent approval.
- 8.6 With regard to 20(b), the plan shows the building for which Reserved Matters approval is now sought (coloured green). The way in which the approved uses are to be incorporated in the building is covered in more detail by the information presented in this Compliance Report in connection with condition 27.

- 8.7 As required by 20(c), the plan shows how the buildings already permitted and that subject to the current Reserved Matters submission would be built-out in accordance with the Outline Planning Permission.
- 8.8 The buildings for which Reserved Matters are yet to come forward are shown on the plan in yellow, as required by 20(d).
- 8.9 In connection with 20(e), no significant public realm works are proposed within this submission. Pancras Square is outside the site boundary of this submission, and is addressed in the approved public realm reserved matters for Pancras Square, the design of which will be amended by an updated landscaping reserved matters submission, to be submitted shortly.
- 8.10 A small area of new public realm is created under the colonnade outside the retail unit at the south-eastern corner of Building B1, and details of this area are shown on the submitted drawings.
- 8.11 Within the wider context, the Station Square and King's Boulevard works are also underway, with the interim King's Boulevard to be completed and opened shortly. Station Square will follow in 2012 to coincide with the opening of the Western Concourse and the Olympics. The final finishes in Station Square are expected to be in place by 2014. The Zone B public realm (i.e. Pancras Square, Turnhalle Square, Canal Square and the remaining secondary streets) would be triggered by the development of the Zone B building. Various Easter Goods Yard public realm works, including Granary Square, are programmed for completion in early summer 2012. The public realm works associated with buildings R4 and R5 north are also anticipated to be completed during 2012.

- 8.12 With regard to 20(f), the plan indicates that Pavilion G1, which was approved under the Eastern Goods Yard submission, is to have a brown roof section, amounting to around 80 sqm. Further areas of green/brown roofs will be provided on Buildings R2, T1 and R4, whilst a green wall will be installed on the perimeter wall of the new Gas Governor. The approved design for Building B4 includes 405 sqm of green roofs in the form of two planted roof terraces whilst the approved design for B6 includes 385 sqm of brown roof. Outside of Zone B, areas of green/brown roof will be provided on Buildings R2, T1, R4, T6, R5 North and J, and a green wall will be installed on the perimeter wall of the new Gas Governor in Development Zone V. The submitted plans for Building B3 also envisage a brown roof.
- 8.13 The illustrative build-out plan, together with the above points, demonstrates the relationships between the different components and phases of the development, as required by 20(g).
- 8.14 The details thus provided are submitted to meet the requirements of condition 20.



Development zones for which buildings have yet to come forward for approval

Subject to a current Reserved Matters submission

Buildings for which approval has been given

Buildings brought forward with this submission

Illustrative Build Out Plan
September 2011

9 Condition 21 (Particulars to Accompany Reserved Matters Applications – Construction Timetable)

9.1 The condition and its reason state:-

“Relevant applications for approval of Reserved Matters shall be accompanied by details of:

- a) the construction timetable for those developments for which approval is sought;**
- b) how that construction timetable relates to the overall sequence of the development and its division into a number of major phases; and**
- c) demonstrates compliance with conditions 66 and 67.**

Reason: To ensure a comprehensive and sustainable development, to protect amenities and ensure safe access in accordance the Environmental Impact Assessment, in accordance with policies S1, S2, S3, SKC1 and KC6 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 21







9.2 The following pages present the anticipated construction timetable for the site clearance/remediation of Zone B and construction of Building B1.

9.3 A series of four plans are provided which place the proposed development within the anticipated sequence of implementation of the KXC development as a whole.

9.4 The construction programme for the construction of Building B1 is also provided, illustrating a main build period from January 2013 to mid J014, with fit out to be complete by October 2014.

- 9.5 The timetable for B1 sets out the likely construction period for the building although the implementation date will ultimately depend on market conditions and occupier demand.
- 9.6 These details are provided to meet the requirements of condition 21.



- | | | | |
|--|-------------------|---|-----------------------------------|
|  | Demolition |  | Shared Service Yard |
|  | Highway Works |  | Enabling Works |
|  | Built Development |  | Relocation of features/facilities |

First Major Phase Enabling Works (Illustrative)

September 2011



- Demolition
- Public Realm
- Highway Works
- Built Development

- Relocation of features/facilities
- E Energy Centre

The First Major Phase (Illustrative)

September 2011



- Demolition
- Public Realm
- Highway Works
- Built Development

- Relocation of features/facilities
- E Energy Centre

The Second Major Phase (Illustrative)

September 2011



Illustrative Scheme Plan (Completed Build Out)

September 2011

Kings Cross Building B1 - Project Timetable

BNP PARIBAS REAL ESTATE					2011												2012												2013												2014											
					J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	
		Start Date	End Date	Months																																																
PLANNING	Reserved Matters Application	Sep-11	Jan-12	5																																																
SITE PREPARATION	Clear B1 Site (by others)	Dec-11	Oct-12	11																																																
	Further Site Investigation (by others)	Jun-12	Aug-12	3																																																
	Bulk Excavation and Site Remediation (by others)	Jun-12	Oct-12	5																																																
PROCUREMENT	Procurement	Sep-11	Oct-12	13																																																
CONSTRUCTION	Substructure	Jan-13	May-13	5																																																
	Superstructure	May-13	Jun-14	14																																																
	Roof and External Cladding	Dec-13	Jul-14	8																																																
	Environmental Services	Jul-13	Mar-14	9																																																
	Finishes	Oct-13	Aug-14	11																																																
	Tenant Fit-Out	Dec-13	Oct-14	11																																																

10 Condition 22 (Particulars to Accompany Reserved Matters Applications – Servicing Strategy)

10.1 The condition and its reason state:-

“A servicing strategy consistent with plan KXC 017 Rev R demonstrating where servicing for any building will be located will support any relevant application for approval of Reserved Matters. The strategy shall include details of the proposed hours of servicing and the mechanisms that will be used to ensure loading and unloading takes place in accordance with the strategy as approved. No servicing of any building shall take place on any part of the highway network or public realm other than in accordance with the servicing strategy so approved.

Reason: To ensure safe, efficient and sustainable access to, and protect amenities in, the development in accordance with the Environmental Impact Assessment, in accordance with policies B1, T1, KC5, KC6 and SD6 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 22

10.2 The requirement for a Servicing Strategy is fulfilled by Section 1.7 of the Urban Design Report, which covers this matter. This includes a detailed plan showing: (i) the position of the entrances/exit ramp off Pancras Road, which is located in accordance with Parameter Plan KXC 017, (ii) the location and configuration of the servicing area within the basement of Building B1, that is within the basement sitting entirely within the footprint of the building, and (iii) the position and sizing of the refuse store. For ease, a plan of the basement area is reproduced overleaf

- 10.3 The revised shared Zone B basement scheme that is being brought forward will be designed to ensure it is compatible with the service area within the footprint of B1, and the current Zone B basement layout is shown, for indicative purposes only, outside the submission boundary, on the submitted basement layout plans.
- 10.4 The Servicing Strategy also outlines the management arrangements that will apply to the basement service area. For example, all delivery vehicles will be required to pass through a 24hr manned security barrier located on the entry ramp from Pancras Road.
- 10.5 Arrangements will be made with primary service and delivery providers to ensure a managed strategy to deliveries wherever possible within the hours of operation.
- 10.6 Vehicles will then follow a one-way route to the loading bay for unloading/pick-up. It is anticipated that deliveries by articulated lorries will be rare, for example for major refits, and therefore they can be scheduled to arrive during the evening or weekend when the service areas are not busy.
- 10.7 The details thus provided meet the requirements of condition 22 and are submitted for approval.

11 Condition 23 (Particulars to Accompany Reserved Matters Applications - Highways Plan)

11.1 The condition and its reason state:-

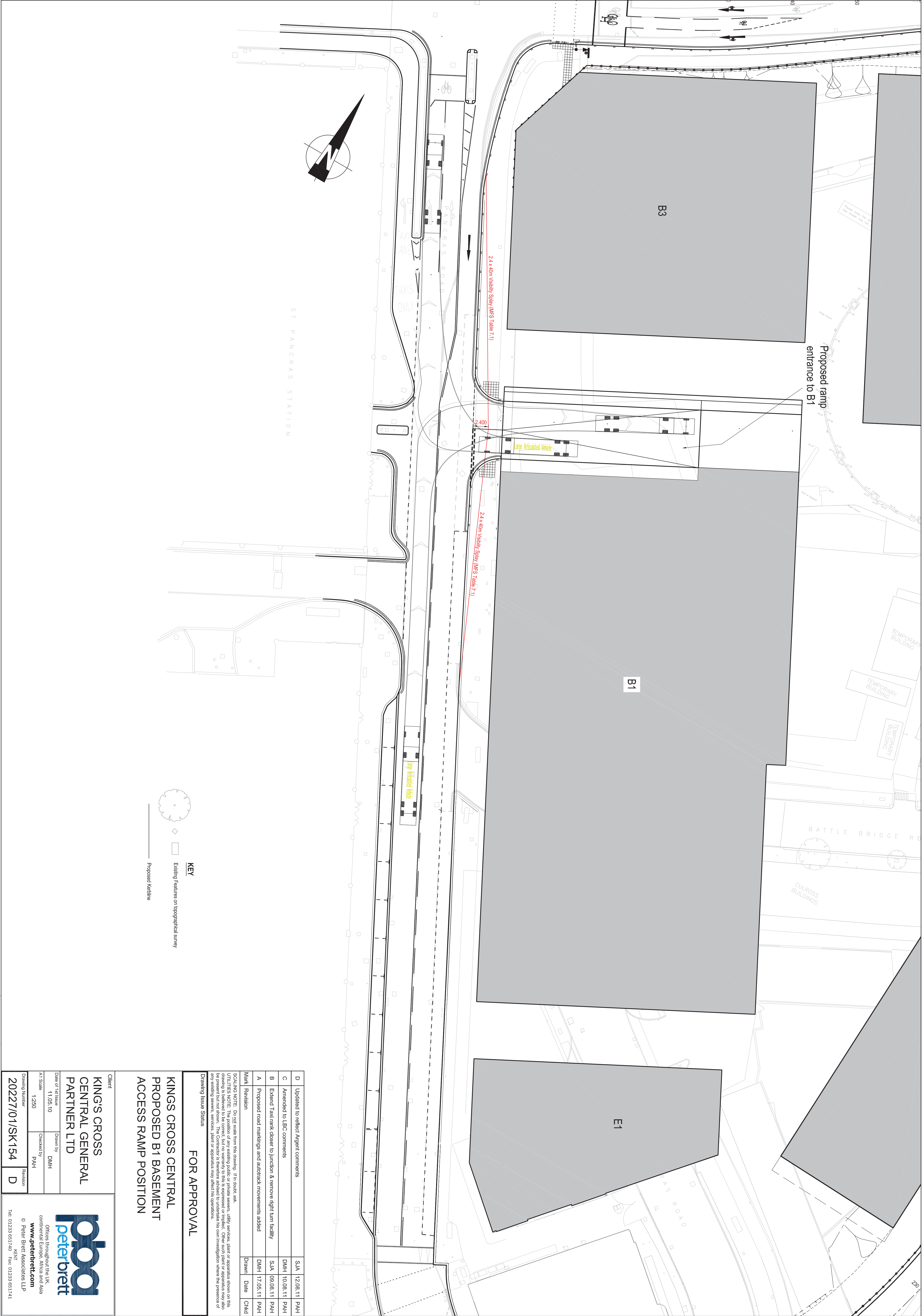
“Relevant applications (or groups of related applications) for approval of Reserved Matters shall be accompanied by a Highways Plan. The Highways Plan shall show any works that are required to the existing adopted highways of York Way, Goods Way and/or Pancras Road, to achieve appropriate means of access to those buildings for which approval is sought. Development shall not commence on those buildings until a detailed scheme for the highway works required has been approved by the local planning authority and the buildings shall not be first occupied until the level of works specified by the local planning authority as being required prior to occupation have been completed and provision has been made for the completion of the remaining works.

Reason: To ensure safe, efficient and sustainable access and to protect amenities and to ensure the development is carried out in accordance with the assessment and conclusions of the Environmental Impact Assessment, in accordance with policies B1, T1, T2, T5, T12, T13, SKC1, KC5 and KC6 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 23

11.2 The building will be serviced via the proposed Zone B basement which will be accessed from Pancras Road. A revised highway plan reference 20227/01/SK154 D will be submitted with the reserved matters submission for the new Zone B basement layout, the submission of which will shortly

follow the submission of these details for Building B1. This plan has been revised to reflect the changes made to amend the position of the entrance ramp within Plot B1. Apart from the change in the location of the entrance ramp there have been no material changes to its detailed design from that shown on Highways Plan 67940_7103 originally approved as part of the Reserved Matters submission for the Pancras Road realignment (ref. 2007/0729/P). For ease, a copy of the plan currently planned to be included within the forthcoming basement reserved matters submission plan is reproduced on the following page.



D	Updated to reflect Argent comments	SJA	12.08.11	PAH
C	Amended to LBC comments	DMH	10.08.11	PAH
B	Extend Taxi rank closer to junction & remove right turn facility	SJA	09.06.11	PAH
A	Proposed road markings and auto-track movements added	DMH	17.05.11	PAH
Mark	Revision	Drawn	Date	Chkd


UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is for information only. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect the operations.

Drawing Issue Status

FOR APPROVAL

KING'S CROSS CENTRAL
PROPOSED B1 BASEMENT
ACCESS RAMP POSITION

Client		KING'S CROSS CENTRAL GENERAL PARTNER LTD	
Date of 1st Issue	Drawn by	DMH	
11.05.10	Checked by	PAH	
AT Scale		1:250	
Drawing Number		Revision	D
20227/01/SK154			

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12 Condition 27 (Details Required by Condition – Floorplans etc.)

12.1 The condition and its reason state:-

“Details and particulars including floorspace figures, floorplans and layouts of the uses, and the vehicle and other servicing and access, including provision for any coach access and parking to be accommodated in built and refurbished accommodation, shall be submitted to and approved in writing by the local planning authority before any of those uses commences and the uses will commence only in accordance with the details so approved.

Reason: To ensure a comprehensive and sustainable development, to ensure safe and efficient access, to achieve good design and protect amenities and to ensure the development is carried out in accordance with the assessment and conclusions of the Environmental Impact Assessment, in accordance with policies SKC2, SKC3, KC1, KC2, KC3, KC6 and T15 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

12.2 The layout plans Wuk_1440_PL_51BS50 to Wuk_1440_PL_51RF50 within the submitted drawings set provide the floorplan, layout and access details required by the condition. Table 11.1 overleaf summarises the floorspace figures floor by floor.

Floor	Office	Retail	Other	Total
Basement Mezzanine			170 ¹	170
LG	1,366	22	892 ²	2,280
UG	2,594	978		3,572
1 st	3,722			3,722
2 nd	3,976			3,976
3 rd	3,976			3,976
4 th	3,976			3,976
5 th	3,976			3,976
6 th	3,986			3,986
7 th	3,876			3,876
8 th	3,004			3,004
9 th	3,004			3,004
10 th	2,135			2,135
11 th	1,444			1,444
TOTAL (excluding Basements)	41,035	1,000	1,062	43,097

Table 12.1 – Proposed Floorspace (sq m, GEA)

¹ In accordance with Note 10 to Table 1 of the Revised Development Specification, attached as Annex 3 to the Outline Planning Permission. This figure includes lower ground and basement floorspace for the Police Office and Bicycle Storage Facility but excludes basement service areas and other infrastructure and utility elements. The Police Office and Bicycle Storage Facility are discussed in Sections 31 and 32, respectively.

² Bicycle Storage Facility

- 12.3 Up to five retail units will be created on the upper ground floors fronting on to Pancras Square, and north onto the route between B1 and B3. These units provide a range of differently sized premises which will be used for a range of uses in Use Classes A1 – A5. At least 30% of the total floorspace fronting Pancras Square (978sqm) will be used for restaurant (Class A3) purposes, as sought by the Retail

Framework at Section LL of the Section 106 Agreement. These retail units are additional to the Bicycle Storage Facility and to the ancillary office café on the lower ground floor, fronting Pancras Road.

- 12.4 Car parking and cycle parking will be provided in the basement and basement mezzanine floors, respectively, as shown on submission drawings Wuk_1440_PL_51S50 and Wuk_1440_PL_51MZ50. 27 car parking spaces will be provided, of which 2 will be disabled. 190 cycle parking spaces will be provided, along with shower, changing and locker facilities. These spaces will be for occupiers of the building and will be additional to the TfL cycle store facility on the lower ground floor.
- 12.5 The level of cycle parking provision exceeds the standards set out in Appendix 6 of the Replacement Unitary Development Plan 2006, which requires 1 cycle space per 250sqm of Class B1 office space and Class A1-A5 retail space. 174 cycle parking spaces are provided for the office occupiers, and a further five for the retail occupiers. An additional six spaces are provided for visitors to the office space and five spaces for visitors to the retail space. These are in addition to the spaces to be provided within the public Bicycle Storage Facility.
- 12.6 The details submitted are to meet the requirements of condition 27 and are for approval.

13 Condition 28 (Details Required by Condition – Refuse Storage and Collection)

13.1 The condition and its reason state:-

“Details of arrangements for storage and collection of refuse, for the development hereby approved, including location, design, screening, operation and the provision of facilities for the storage of recyclable materials shall be submitted to and approved in writing by the LPA as part of the relevant applications for approval of Reserved Matters for each phase of the Development and the development shall be carried out only in accordance with the details so approved and shall be retained thereafter.

Reason: To ensure good design, to safeguard the amenity of the area and ensure that the development is sustainable and has adequate facilities, in accordance with the Environmental Impact Assessment, in accordance with policies SD6 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 28

- 13.2** Access to the service and refuse storage area will be via the Zone B basement, a revised design for which is the subject of a separate submission to be submitted shortly. The servicing and refuse storage areas themselves are within the basement of the Building B1, and full details of the refuse and servicing strategy for the building is provided in in Section 1.7 of the Urban Design Report.
- 13.3** These details are submitted to meet the requirements of condition 28 and are for approval.

14 Condition 31 (Development To Be Carried Out In Accordance With Permission – Parameter Plans and Development Specification)

14.1 The condition and its reason state:-

“The development shall be carried out in accordance with the Revised Parameter Plans and as described in the specified paragraphs of the Revised Development Specification dated September 2005 comprising:

- a) the Principal Public Realm Areas shown on drawing KXC004 Rev S together with paras 4.9, 4.13 (insofar as it relates to public realm), 4.14, 4.17 and 4.19;**
- b) the boundaries of Development Zones shown on drawing KXC005 Rev T together with paras 4.20, 4.21, 4.23 - 4.26, and with Table 2 to the extent that it provides a summary and indicative description of the proposals in each development zone only;**
- c) the Regent's Canal works shown on drawing KXC006 Rev Q together with paras 4.27 - 4.29;**
- d) the Principal Access and Circulation Routes shown on drawing KXC007 Rev S together with paras 4.30 - 4.47 and with Annex C to the extent that it provides a summary and indicative specification for the routes only;**
- e) the Upper Floor Land Uses Along Street Elevations shown on drawing KXC008 Rev R together with paras 4.48 - 4.54 to the extent that these describe the overall distribution of land uses only;**
- f) the Ground Floor Land Uses Along Street Frontages shown on drawing KXC009 Rev P together with paras 4.49 - 4.54 to the extent that these describe the**

- overall distribution of land uses only;
- g) the Proposed Finished Site Levels shown on drawing KXC012 Rev T together with paras 4.62 - 4.67;
 - h) the Development Massing shown on drawing KXC013 Rev L together with paras 4.68 - 4.72 and Table 3;
 - i) the Maximum Building Heights shown on drawing KXC014 Rev W together with paras 4.73 - 4.75;
 - j) the Strategic View Corridor Constraints shown on drawing KXC015 Rev S together with paras 4.79 - 4.81;
 - k) the Basement Zones shown on drawing KXC016 Rev 0 together with paras 3.40 - 3.41 and 4.82 - 4.86;
 - l) the Servicing arrangements shown on drawing KXC017 Rev R, together with para 4.87;
 - m) the Utilities Strategy shown on drawing KXC018 Rev M, together with paras 4.88 and 4.90 - 4.98;
 - n) the Gas Holder Triplet Development shown on drawing KXC020 Rev E together with paras 4.104 and 4.105 to the extent that they show indicative proposals only for the works and land uses; and
 - o) the Priority Zones for Green/Brown Roofs and Wind Turbines shown on drawing KXC021 Rev A, together with paras 3.43, 3.44, 4.106 and 4.107,

except that in relation to (i) above the building heights within Plot S2 identified on drawing KXC005 Rev T shall be at least 6.5m below the maximum heights shown in Parameter Plan KXC014 rev W across at least 80% of the plot, unless otherwise approved in writing by the local planning authority.

Reason: The development is the subject of an Environmental Impact Assessment and any change to the development from the particulars assessed as above might have an impact which has not been identified and assessed. The requirements of this condition are to ensure a comprehensive and sustainable development, to achieve integration, regeneration and good design and to accord with the assessment and conclusions of the Environmental Impact Assessment in accordance with policies S1, S2, S3, SKC1, SKC2, SKC3, SKC4 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 31

14.2 It should be noted that the parameter plans referred to in sub-paragraphs (c) (Regent's Canal), (m) (Utilities) and (n) (Gas Holders) do not apply to the proposed Building B1 development.

14.3 The response to the other relevant paragraphs of Condition 31 is set out below, by heading.

a) the Principal Public Realm Areas shown on drawing KXC004 Rev S together with paras 4.9, 4.13 (insofar as it relates to public realm), 4.14, 4.17 and 4.19

14.4 The proposed development does not include but will adjoin and define areas of principal public realm, namely, Pancras Square and a secondary street to the south, between B1 and Zone E.

(b) Boundaries of Development Zones and types of development in each (Parameter Plan KXC 005 Rev T)

- 14.5 In relation to sub-paragraph (b) of the condition, the boundaries of Building B1 conform to the zone's allowable limits of deviation and the proposed uses are consistent with Table 2 of the (revised) Development Specification.

**(e) and (f) Upper and Ground Floor Land Uses
(Parameter Plans KXC 008 Rev R and KXC 009 Rev P)**

- 14.6 The proposed building will predominantly have shop and food and drink uses at upper ground floor level on Pancras Square. The lower ground floor frontage to Pancras Road will be in office use, although there will also be an entrance to the public Bicycle Storage Facility from the road to the south of the site. The office café space at lower ground floor level (which is ancillary Class B1 floorspace) will also be provided. This is consistent with parameter plan KXC 009 Rev P, which indicates that most of the frontage of B1 to principal public realm may be any permitted use, as defined in Annex B of the Development Specification, with an area of shop use on the south east corner. The Bicycle Storage Facility is a permitted use described in Annex B of the Development Specification.
- 14.7 The proposed building will be in office (Class B1) use at first floor level and above. This is consistent with parameter plan KXC 008 Rev R which requires the upper floors to be in predominantly Class B1 use.

(g) Finished Site Levels (Parameter Plan KXC 012 Rev T)

- 14.8 As explained in the Earthworks and Remediation Plan for Zones B and E, the proposals for Building B1 are consistent with the finished site levels indicated on the relevant parameter plan read in conjunction with the limits of deviation.

(h) Development Massing (Parameter Plan KXC 013 Rev L)

14.9 The massing criterion specifying the maximum percentage, in this case 29%, of the total floorspace applied for within each development zone that may be constructed 30m or above finished ground levels applies to Zone B as a whole, not each individual plot within it. Nevertheless, for information purposes, the applicant has considered the position individually for the current proposals for Building B1. As confirmed by the foot-note on page 34 of the Development Specification, the term 'finished ground floor levels' in this context is to mean the level measured at the main entrance of the building, in this case 20.95m AOD (upper ground floor plan). Reference to the cross-section drawing shows that the 30m level from this reference point falls at 7th floor level. The floorspace table presented in Table 12.1 in connection with condition 27 demonstrates that the amount of floorspace as specified in Annex B to the Outline Planning Permission above the 30m level in Level 8 and above is 9,587sqm (GEA). Reference to the same table shows that the overall amount of floorspace proposed in the building is 43,097sqm GEA. The percentage of floorspace applied for 30m or more above finished ground floor level, therefore, is 22%, that is below the 29% limit for the whole of Zone B.

14.10 Considered cumulatively with the details approved for Buildings B2, B4 and B6, the relevant figures are as follows:

Plot	Floorspace above 30m (sqm)	Total floorspace above ground level (sqm)
B1 (Proposed)	9,442	42,974
B3 (Proposed)	6,805	20,404
B2 (Permitted)	636	7,098
B4 (Permitted)	4,371	16,824

B6 (Permitted)	6,182	20,853
Total	27,581 (25.5%)	108,276

Table 14.1: Cumulative floorspace above 30m for Zone B buildings approved to date, including B1

- 14.11 The combined result for the massing criterion for Building B1 and B3 as proposed and Buildings B2, B4 and B6 as permitted is 23.5%, within the 29% maximum.
- 14.12 Consequently, in as much as Building B1 is only part of Zone B, the proposed development conforms to the parameter plan referred to in sub-paragraph (h) both individually and cumulatively.

(i) Maximum Building Height (Parameter Plan KXC 014 Rev W)

- 14.13 The mass of Building B1 steps up from south to north, with maximum AOD roof heights of +52.225m AOD, +63.775 AOD and +68.950 AOD for the three distinct block heights. The proposal therefore complies with the relevant parameter plan, which defines maximum block heights of +56.0m AOD, +65.0m AOD and +70.0m.

(j) Strategic View Corridors (Parameter Plan KXC 015 Rev S)

- 14.14 The eastern part of Building B1 would be within the width of the former Strategic Viewing Corridor to St. Paul's Cathedral from Parliament Hill, as shown on the relevant parameter plan, but the proposed building height of +68.950 AOD is below the constraint height of 70.4m AOD to 71.1m AOD at this location. Accordingly, the proposed development does not contravene the Strategic Viewing Corridor constraint shown on the parameter plan referred to in sub-paragraph (j) of Condition 31. Of course, the viewing corridors have since

been amended by the July 2010 London View Management Framework SPG, and further amendments are proposed in the July 2011 consultation draft SPG. For this reason, parameter plan KXC 014 is the more important and proposals which comply with that parameter plan will always comply with parameter plan KXC 015.

(k) and (l) Basement Zones (Parameter Plan KXC 016 Rev O) and Servicing Arrangements (Parameter Plan KXC 017 Rev R)

14.15 The parameter plan referred to in (k) confirms the acceptability of providing a basement and some lower ground floor in Building B1. The B1 basement will form part of the wider Zone B basement, and will include the access ramp to the shared Zone B basement from Pancras Road in accordance with parameter plan KXC017. The B1 basement will house the servicing, refuse, car/cycle parking and storage functions for the building. Full details of the basement within the footprint of Building B1 are provided in this submission, and a parallel reserved matters application is being made to seek approval for a revised layout for the wider Zone B basement, to ensure the two integrate successfully.

14.16 As described above the servicing arrangements are described in paragraph 1.7 of the Urban Design Report.

14.17 The proposed access ramp to the Zone B basement area is within the area of frontage to Pancras Road shown on the parameter plan referred to in paragraph (l) and thus complies.

(O) Priority Zones for Green and Brown Roofs and Wind Turbines (Parameter Plan KXC 021 Rev A)

- 14.18 The parameter plan referred to in sub-paragraph (o) shows Priority Zones for green/brown roofs and wind turbines.
- 14.19 As explained in more detail in relation to Condition 46, a total of 1,227 sqm of brown roof is proposed for the 11th floor roof level, even though development Zone B is not identified as a Priority Zone for such provision on the relevant parameter plan.

Summary

- 14.20 In summary, the submitted drawings set and reports, together with the explanation above, demonstrate that the proposed development will be carried out in accordance with the approved Parameter Plans and the Development Specification, as required by condition 31.

15 Condition 33 (Development To Be Carried Out In Accordance With Permission – Floorspace Permitted Site-wide)

15.1 The condition and its reason state:-

“The total floorspace constructed and used pursuant to this outline planning permission shall not exceed 713,090 sqm gross external area, provided that this total floorspace excludes:

(a) basements to be constructed in accordance with condition 31(k) other than the public bicycle interchange/storage facilities and public health and fitness facilities in Development Zone B partly within basement space specified in Table 1 and Annex B attached;

(b) infrastructure and utilities forming part of and supporting the development including the substations, transformers, waste storage and ancillary recycling facilities;

(c) rooftop plant;

(d) the district gas governor; and

(e) car parking other than the multi storey car park.

Reason: The development is the subject of an Environmental Impact Assessment and any change to the development from the particulars assessed might have an impact which has not been identified and assessed. The requirements of this condition are to ensure a comprehensive and sustainable development, to achieve integration, regeneration and good design, to protect the setting of listed buildings, to preserve or enhance the character or appearance of conservation areas and protect Strategic Views and to accord with the

assessment and conclusions of the Environmental Impact Assessment, in accordance with policies S1, S2, S3, SKC1, SKC2, SKC3 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 33

- 15.2 The proposed floorspace in Building B1 is 43,097 sqm GEA sqm, as set out in Table 12.1 presented in connection with condition 27.
- 15.3 Table 15.1 summarises the floorspace currently with reserved matters approval across Kings Cross Central. Submissions currently being determined are noted in italics.

Plot	Reference Date	Total Floorspace (sqm)
Eastern Goods Yard	2007/5228/P 8 April 2008	55,190 sqm
Building R2	2008/5052/P 22 January 2009	48,522 sqm
Building T1	2009/0415/P 24 April 2009	29,045 sqm
Building T6	2010/4468/P 11 January 2011	16,292 sqm ¹
Building R4	2010/0389/P 15 April 2010	11,761 sqm
Building R5	2011/0431/P 8 April 2011	14,237 sqm
Zone J	2010/6688/P 11 March 2011	16,265 sqm
Building B2	2010/0862/P 30 April 2010	7,098 sqm
Building B4	2010/0868/P 30 April 2010	16,824 sqm
Building B6	2010/0870/P 30 April 2010	20,853 sqm

Great Northern Hotel	2010/3304/P 3 October 2010 2011/0049/P 14 March 2011	4,548 sqm
<i>Building B3</i>	<i>2011/4090/P Currently being determined</i>	<i>20,404 sqm</i>
<i>Building B1</i>	<i>This submission</i>	<i>43,097 sqm</i>
Total floorspace submitted/approved		304,136sqm

Table 15.1: KXC site-wide cumulative floorspace totals

Notes:

¹ Floorspace below outline parameter height of 67m AOD as agreed in s106 agreement dated 11 January 2011

Condition 33 maximum floorspace site-wide: 713,090 sqm

Condition 34 maximum area south of Regent's Canal: 244,250sqm

- 15.4 Table 15.1 demonstrates that there is a total of 304,136 sqm GEA of floorspace for which there is existing reserved matters approval or for which submissions are currently being determined. This is less than the 713,090 sqm maximum permitted by Condition 33.
- 15.5 The details submitted enable LBC to monitor the position with regard to floorspace build-up and do not require approval.

16 Condition 34 (Development To Be Carried Out In Accordance With Permission – Floorspace Permitted South of the Regent’s Canal)

16.1 The condition and its reason state:-

“The maximum floorspace of buildings constructed and refurbished in accordance with condition 33 within the Development north of Regent’s Canal shall not exceed 468,480 sqm gross external area and south of Regent’s Canal shall not exceed 244,250 sqm gross external area.

Reason: The development is the subject of an Environmental Impact Assessment and any change to the development from the particulars assessed might have an impact which has not been identified and assessed. The requirements of this condition are to ensure a comprehensive and sustainable development, to achieve integration, regeneration and good design, to protect the setting of listed buildings, to preserve or enhance the character or appearance of Conservation Areas and protect Strategic Views and accord with the assessment and conclusions of the Environmental Impact Assessment, in accordance with policies and policies S1, S2, S3, SKC1, SKC2, SKC3 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 34

16.2 The proposed total floorspace in Building B1 is 43,097sqm, as set out in Table 12.1 presented in connection with condition 27.

16.3 Table 16.1 summarises the floorspace currently with reserved matters approval south of Regent’s Canal.

Plot	Reference Date	Total Floorspace (sqm)
Building B2	2010/0862/P 30 April 2010	7,098 sqm
Building B4	2010/0868/P 30 April 2010	16,824 sqm
Building B6	2010/0870/P 30 April 2010	20,853 sqm
Great Northern Hotel	2010/3304/P 3 October 2010 2011/0049/P 14 March 2011	4,548 sqm
<i>Building B3</i>	<i>2011/4090/P Currently awaiting determination</i>	<i>20,404 sqm</i>
<i>Building B1</i>	<i>This submission</i>	<i>43,097 sqm</i>
Total floorspace submitted/approved		112,824 sqm

Table 16.1: KXC site-wide cumulative floorspace totals south of the Regent's Canal

Notes:

Condition 33 maximum floorspace site-wide: 713,090 sqm

Condition 34 maximum area south of Regent's Canal: 244,250sqm

- 16.4 This amounts to 112,824 sqm of floorspace with reserved matters approval or for which submissions are currently being determined. This is less than the 244,250sqm south of Regent's Canal permitted by Condition 34.
- 16.5 The details submitted enable LBC to monitor the position with regard to floorspace build-up and do not require approval.

17 Condition 35 (Development To Be Carried Out In Accordance With Permission – Uses Permitted)

17.1 The condition and its reason state:-

“Permission is hereby granted for the following uses as set out in the description of development to take place within buildings constructed and refurbished within the Development:

- (a) Business and employment uses within Class B1;**
- (b) Residential uses within Class C3 and student accommodation and a residential home within Class C2;**
- (c) Hotel use within Class C1 and serviced apartments (sui generis outside of Class C3);**
- (d) Shopping, food and drink uses within Classes A1, A2, A3, A4 and A5;**
- (e) Uses within Class D1;**
- (f) Cinema use(s);**
- (g) Uses within Class D2, and nightclub uses and casino use;**
- (h) A multi storey car park;**
- (i) Other miscellaneous uses, including public bicycle interchange/storage facilities, substations, transformers, waste storage and recycling facilities and the gas governor.**

and the floorspace constructed and used pursuant to the planning permission shall not, unless otherwise agreed in writing by the local planning authority, exceed in the case of any use or group of uses within each of the areas north and south of Regent’s Canal the individual

maximum floorspace figures as set out in Table 1 attached, that Table being read together with the notes 4 to 13 inclusive.

Reason: The development is the subject of an Environmental Impact Assessment and any change to the development from the particulars assessed might have an impact which has not been identified and assessed. The requirements of this condition are to ensure a comprehensive and sustainable development, to achieve integration, regeneration and good design, to protect the setting of listed buildings, to preserve or enhance the character or appearance of conservation areas and protect Strategic Views and to accord with the assessment and conclusions of the Environmental Impact Assessment, in accordance with policies S1, S2, S3, SKC1 SKC2, SKC3, KC2 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

- 17.2 Table 17.1 following this section shows that the proposed floorspace for the uses within the proposed Building B1 development, together with those for Buildings B2, B4, B6 and the Great Northern Hotel for which reserved matters approval already exists, and for Building B3 as currently proposed in application 2011/4090/P, would not exceed the maximum figures for the relevant land uses applying within the area south of the Regent’s Canal, as set out in Table 1 to the Outline Planning Permission.
- 17.3 These details enable LBC to monitor the position on floorspace provided and do not require approval.
- 17.4 Furthermore Clause 1 of Section LL of the Section 106 agreement contains an overall limit on the amount of floorspace that can be first occupied at Kings Cross Central

for uses within Classes A1 – A5 of 45,925sqm GEA, of which no more than 32,500sqm GEA can be first occupied for Classes A1 and A2, and no more than 15,000sqm GEA can be first occupied for Classes A3, A4 and A5. The limit on the amount of Class A1-A5 floorspace south of the Regent's Canal set out in Table 1 of the Outline Permission of 15,060 sqm is below this limit; in complying with this limit, as set out above, the limit on the overall amount of Class A1-A5 floorspace in Clause 1 of Section LL is also satisfied.

- 17.5 The precise uses to which the proposed Class A1-A5 floorspace in Building B1, and much of the approved Class A1-A5 retail floorspace elsewhere in Kings Cross Central, will be put has not yet been determined in the majority of cases. Section LL requires that, prior to the first occupation of new retail floorspace, the Council approve the proposed use, location and size of unit, should it be inconsistent with the Retail Framework set out in the Schedule. In this way the further more detailed requirements of Section LL on the disposition of uses within Classes A1 – A5 can be met as and when potential occupiers for completed units are identified.
- 17.6 Notwithstanding this the applicants have committed that at least 30% of the total floorspace taken up for Class A1-A5 retail and food and drink use within B1 and fronting on Pancras Square will be first occupied for uses within Class A3 (restaurant) use. in this way Building B1 will be consistent with the Retail Framework set out within Section LL of the Section 106 Agreement.

Maximum Use (sqm GEA)	Building B1	Building B2	Building B3	Building B4	Building B6	Great Northern Hotel	TOTAL	Maximum for area south of Regent's Canal
Office (B1)	41,035	5,720	17,248	13,670	17,559		95,232	221,510
Residential (C3)	n/a	n/a	n/a	n/a	n/a		0	2,200
Hotel (C1)	n/a	n/a	n/a	n/a	n/a	4515	4,515	32,625
Shops (A1-A5)	1,000	301	n/a	1,085	1,333	33	3,752	15,060
Non-residential institution (D1)	n/a	n/a	2,066	n/a	n/a		2,066	3,950
Assembly or Leisure (D2)	n/a	n/a	2,772	n/a	n/a		2,772	4,455
Multi-storey car park	n/a	n/a	0	n/a	n/a		0	0
Other	1,062	68	0	n/a	n/a		1,130	1,375

Table 17.1: KXC floor space south of the Regent's Canal by land use (GEA).

Note:

1. The floorspace figures in Table 1 to the Outline Planning Permission exclude new basement floorspace within buildings with the exception of the proposed TfL bicycle interchange/storage facilities, Metropolitan Police facility and D2 uses. Consequently, the Zone B basement is not included in Table 17.1.
2. 'Other' refers to service entrances and access to London Underground Ltd (LUL) facilities and public bicycle interchange/storage facilities.

18 Condition 36 (Development To Be Carried Out In Accordance With Permission – Uses Permitted)

18.1 The condition and its reason state:-

“Unless otherwise agreed in writing by the local planning authority, the new and refurbished floorspace constructed as part of the development hereby permitted, within the maxima set out in condition 35, will be distributed between the Development Zones in accordance with the maximum floorspace allocations in Annex B attached subject to Annex B (north and south of the canal) being read together with the notes excluding notes 4 and 5 and Annex B (north of the Canal) being read together with the notes excluding note 15.

Reason: The development is the subject of an Environmental Impact Assessment and any change to the development from the particulars assessed might have an impact which has not been identified and assessed. The requirements of this condition are to ensure a comprehensive and sustainable development, to achieve integration, regeneration and good design, to protect the setting of listed buildings, to preserve or enhance the character or appearance of conservation areas and protect Strategic Views and to accord with the assessment and conclusions of the Environmental Impact Assessment, in accordance with policies S1, S2, S3, SKC1, SKC2, SKC3, KC2 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 36

18.2 Table 18.1 following this section shows that the proposed floorspace for the uses within the proposed Building B1

development, together with those for Buildings B2, B4, B6 for which reserved matters approval already exists, and for Building B3 as currently proposed in application 2011/4090/P, would not, subject to one exception, exceed the maximum figures for the relevant land uses applying within Development Zone B, as set out in Annex B to the Outline Planning Permission.

- 18.3 The exception is the D1 category, where the Zone B total is potentially exceeded by 566sqm due to the flexible B1/D1 uses applied for in relation to the access centre and library in Building B3. Building B1 would not include any D1 uses and this is not of direct relevance to the B1 submission.

Maximum Use (sqm GEA)	Building B1	Building B2	Building B3	Building B4	Building B6	TOTAL	Maximum Development Zone B
Office (B1)	41,035	5,720	17,248	13,670	17,559	95,232	120,100
Residential (C3)	n/a	n/a	n/a	n/a	n/a	0	0
Hotel (C1)	n/a	n/a	n/a	n/a	n/a	0	27,950
Shops (A1-A5)	1,000	301	n/a	1,085	1,333	3,719	5,350
Non-residential institution (D1)	n/a	n/a	2,066	n/a	n/a	2,066	1,500
Assembly or Leisure (D2)	n/a	n/a	2,772	n/a	n/a	2,772	3,750
Multi-storey car park	n/a	n/a	0	n/a	n/a	0	0
Other	1,062	68	0	n/a	n/a	1,130	1,200

Table 18.1: KXC floor space south in Zone B by land use (GEA).

Note:

1. The floorspace figures in Table 1 to the Outline Planning Permission exclude new basement floorspace within buildings with the exception of the proposed TfL bicycle interchange/storage facilities and D2 uses. Consequently, the Zone B basement is not included in Table 18.1.
2. 'Other' refers to service entrances and access to London Underground Ltd (LUL) facilities and public bicycle interchange/storage facilities.

19 Condition 37 (Basement Floorspace)

19.1 The condition and its reason state:-

“The basement floorspace to be constructed in accordance with this permission, and specifically with conditions 33 and 35 shall be constructed in accordance with condition 31(k) above and shall not exceed 83,500sqm gross external area in total (comprising 32,000sqm gross external area to the south of the Regent’s Canal and up to 51,500sqm gross external area to the north of the Regents Canal).

Reason: The development is the subject of an Environmental Impact Assessment and any change to the development from the particulars assessed might have an impact which has not been identified and assessed. The requirements of this condition are to ensure a comprehensive and sustainable development, to achieve integration, regeneration and good design, and to accord with the assessment and conclusions of the Environmental Impact Assessment, in accordance with policies S1, S2, S3. SKC1, SKC2, SKC3, KC2 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

19.2 The basement floorspace proposed under this submission totals 7,150sqm GEA.

19.3 The amount of new basement floorspace already approved is shown in Table 19.1 below. Taking into account the proposed B3 basement service area, and the revised proposals for the Zone B basement the cumulative total of new basement floorspace approved to date across the Kings Cross Central site is 27,671sqm GEA.

- 19.4 The combined total for the approved Shared Service Yard, Great Northern Hotel basement and the proposed shared Zone B basement and B3/B1 basement service areas falls well below the total of 32,000sqm permitted in the area to the south of the Regent's Canal.

Development	New Basement Floorspace
Eastern Goods Yard	2,376
Building R2	3,883
Building J	2,267
Subtotal north of Canal	8,526
Shared Service Yard ¹	1,907
Zone B Basement ^{1 2}	8,335
Great Northern Hotel	1,259
<i>Building B3</i>	1,342
<i>Building B1</i>	7,150
Subtotal south of Canal	19,993
Total	28,519

Table 19.1 Basement Floorspace

1 In accordance with paragraph 4.85 of the Revised Development Specification, the approved floorspace for the Shared Service Yard and proposed floorspace for the shared Zone B basement excludes the access ramp and service roads.

2 Revised proposals for the Zone B basement are being brought forward under a separate reserved matters submission imminently. It is the new floorspace which is reflected in the table above.

- 19.5 This information allows the LPA to monitor the position with new basement floorspace provided and does not require approval.

20 Condition 38 (Basement layout, design access plan)

20.1 The condition and its reason state:-

“Details of this basement floorspace including layout, design, access, the provision of plant and ventilation, shall be included in the relevant application for approval of Reserved matters. The basement space so permitted shall only be used for purposes ancillary to the primary purposes permitted for the relevant buildings including the storage of plant equipment, building services, plant and equipment, other ancillary storage, servicing and parking.

Reasons: To ensure a comprehensive and sustainable development to ensure safe and efficient access, to achieve good design and protect amenities in accordance with the Environmental Impact Assessment, in accordance with policies SKC2, SKC3, KC1, KC2, KC3, KC6 and T15 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

20.2 The Urban Design Report and plans Wuk_1440_PL_51BS50 and Wuk_1440_PL_51MZ50 as submitted include details of the physical layout, design, access, plant and ventilation within the proposed basement area, as required by Condition 38. Further, they show the indicative relationship between the proposed B1 basement service area and the wider Zone B basement, a new design for which will be submitted for reserved matters approval shortly.

20.3 The plans also indicate the intended uses to be provided at basement levels. These mainly comprise refuse storage, car and bicycle parking, shower and changing facilities and a fitness facility, and office and retail storage space. These uses are all ancillary to the main function of the building, to provide Class B1 office floorspace as required by this

condition.

- 20.4 In addition, it is also proposed that the Metropolitan Police facility required by Section I of the Section 106 Agreement will be provided on the basement mezzanine level. This has been agreed in discussions with the Metropolitan Police as the most suitable location for their unit, as it will be directly accessible from the ramp/basement without the need to access a principal shared core or main lobby space. The police facility will not be public facing, allowing officers to spend more time on patrol rather than tying resources to a manned front desk. It would not therefore be suitable for an externally facing position as this would create dead, inactive frontage.

21 Condition 45 (Development To Be Carried Out In Accordance With Planning Permission – Drainage Infrastructure)

21.1 The condition and its reason state:-

“The new drainage infrastructure within the site shall be designed to achieve a combined (storm and foul) peak discharge to the existing combined sewers of 2,292 l/s or less.

Reason: To protect future occupiers of the development, services and utilities, and prevent the pollution of the water environment, in accordance with policy SD9 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 45

21.2 A statement to show compliance with this condition is included in the Environmental Sustainability Plan submitted in response to Condition 17.

21.3 This demonstrates that a range of design measures have been incorporated into Building B1 to ensure that the peak discharge from the development is kept as low as possible to ensure the overall target discharge rate can be met.

21.4 The site wide drainage system, to which Building B1 will connect, has been designed to prevent surface water flooding during the worst case 1 in 30 year flood event, and to ensure no building flooding occurs in the 1 in 200 year flood event, plus a 20% allowance for climate change.

21.5 The site wide system is designed to ensure that peak discharges are attenuated to flows of 2,292 l/s or less as required by this condition.

22 Condition 46 (Development To Be Carried Out In Accordance With Planning Permission – Green And Brown Roofs)

22.1 The condition and its Reason state:-

“At least 15% of the roofs of new buildings constructed pursuant to the planning permission shall be green and/or brown roofs as defined in the Revised Development Specification dated September 2005.

Reason: To ensure a comprehensive and sustainable development and to satisfactorily provide for biodiversity in accordance with the Environmental Impact Assessment, in accordance with policy KC8 and N7 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 46

22.2 Building B1 is not identified on Parameter Plan KXC021 as being located within a Priority Zone for green/brown roofs. Plan Wuk_1440_PL_51RF50 of the submitted drawing set shows that the building will nevertheless provide significant areas of brown roof. Some 1,227 sq m of brown roof at 11th floor level, in addition to the planting on the terrace area, is proposed. The brown roof will cover 29% of the building roof area. Further details of these green roofs are provided in Section 1.4 of the B1 Urban Design Report and in the Environmental Sustainability Plan.

22.3 Table 21.1 confirms that the green roofs on Building B1, together with those provided on approved Buildings R2, R4, R5 North, T1, B4, B3, B6, J and the Granary Square Pavilion (G1) will make a significant contribution to the site-wide requirement established by Condition 46 for at least 15% of the roofs of new buildings to be of green/brown type (as

defined in the revised Development Specification).

Building	Total Roof Area (sqm)	% Area of green/brown roof (sqm)
Eastern Goods Yard (Pavilion G1)	80	-
Building T1	3,570	72%
Building R2	5,750	40%
Building R4	150	13%
Building R5 North	1601	53%
Building B4	405	39%
Building B6	385	28%
Building J	2,162	32%
<i>Building B3</i>	<i>470</i>	<i>29%</i>
<i>Building B1</i>	<i>4,287</i>	<i>29%</i>
Total % area across KXC	18,860	43%

Table 22.1: Green/brown roofs submitted/approved at Kings Cross Central

22.4 These details meet the requirements of condition 46.

23 Condition 48 (Development To Be Carried Out In Accordance With Planning Permission – Combined Heat and Power)

23.1 The condition and its reason state:-

“All new building within development zones A, B, J, K, L, N, P, Q, R, S and T shall incorporate the necessary pipework to connect to district heating/combined heat and power systems.

Reason: to ensure a comprehensive and sustainable development and to satisfactorily provide for an efficient energy supply in accordance with the Environmental Impact Assessment, in accordance with Policies KC8 and SD9 of the London Borough of Camden Replacement Unitary Development Plan 2006”.

Response to Condition 46

23.2 As fully explained in the Environmental Sustainability Plan in connection with condition 17(d) on energy supply, Building B1 will incorporate the necessary pipework for connection to the site-wide district heating system, which includes the energy centre within Building T1 (already approved under reference 2009/0415/P and constructed). It is thus demonstrated that condition 48 will be fulfilled.

24 Condition 49 (Development To Be Carried Out In Accordance With Planning Permission – Car Parking Standards)

24.1 The condition and its reason state:-

“Unless otherwise agreed in writing by the local planning authority, the development shall be constructed in accordance with the following:

a) maximum car parking/storage standards:

i) Residential: 800 spaces for 1,700 residential units at an average ratio of 0.47 per unit across all unit types and tenures;

ii) Student Housing: 25 spaces for 650 units at an average ratio of 1.26 units;

iii) Hotel/serviced apartments: No parking provision south of canal other than parking for people with disabilities (to be agreed in writing by the local planning authority at the Reserved Matter stage). Hotel resident parking at 1 space per 750 sqm north of canal;

iv) Class D1/D2 uses;

1 space per 1,500 sqm gross floor area south of canal

1 space per 1,000 sqm gross floor area north of canal

Additional provision may be permitted if justified for health care purposes or to meet the needs of staff working anti-social hours;

v) Class B1 uses;

Staff/operational parking at 1 space per 1,500 sqm

gross floor area south of canal

Staff/operational parking at 1 space per 1,250 sqm

gross floor area north of canal;

vi) Classes A1 to A5 inclusive uses;

1 space per 1,500 sqm gross floor area south of canal;

1 space per 1,000 sqm gross floor area north of canal;

- b) these standards shall apply to the overall development including parking provided along new streets within the built development; within the multi-storey car park in Development Zone T and within the basements and any undercrofts of buildings;
- c) 5% of the spaces provided within these standards shall be for people with disabilities. Any additional parking required by the local planning authority for people with disabilities may be provided in addition to the above standards; and
- d) the standards exclude provision for city car club spaces (such spaces may be provided in addition to the above) and the provision of service bays to be approved as part of Reserved Matters for the development.

Reason: To ensure a comprehensive and sustainable development and to ensure that the development complies with the Environmental Impact Assessment, in accordance with policies KC6, KC7, TI, T7, T9, TI0 and Appendix 6 (parking standards) in the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 49

- 24.2 Car parking for Building B1 will be provided in the building's basement, as shown on Drawing Wuk_1440_PL_51BS50 (Basement Floor Plan).
- 24.3 Of the 27 spaces proposed, 2 will be for the disabled; that is in excess of the 5% standard required for compliance with the condition. Further details regarding car parking provision, including the location of the spaces, is provided within the Urban Design Report.
- 24.4 Condition 49 permits up to 1 space per 1,500sqm of office development, in the area south of the Regent's Canal. A total of 41,035sqm of office space is provided, which equates to a maximum level of car parking provision of 27 spaces, as set out in Table 24.1.

Use	Office (Class B1)
Floorspace	41,035
Spaces:floorspace	1 : 1,500sqm
Maximum Provision	27.357
Actual Provision	27

Table 24.1: Car parking provision

- 24.5 These details meet the requirements of condition 49.

25 Condition 51 (Development To Be Carried Out In Accordance With Planning Permission – Cycle Parking)

25.1 The condition and its reason state:-

“Unless otherwise agreed in writing by the local planning authority, the development shall be constructed in accordance with the cycle parking/storage standards as set out in Appendix 6 of the London Borough of Camden Replacement Unitary Development Plan 2006.

Reason: To ensure a comprehensive and sustainable development and in order to provide satisfactory provision for cyclists in the development in accordance with the Environmental Impact Assessment, in accordance with policies KC6, T3 and Appendix 6 (parking standards) in the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 51

25.2 190 employee cycle parking and storage will be provided on the basement mezzanine floor in Building B1. These will be allocated for users of Building B1 specifically. 174 spaces will be available for users of the office space, six for visitors to the office space, and ten for the retail space (occupiers and visitors).

25.3 Drawing Wuk_1440_PL_51MZ50, enclosed in the submission, illustrates where the cycle parking will be located. These are in addition to the public cycle parking spaces that will be located within the Bicycle Storage Facility, described in the Urban Design Report and under Part 2, Section GG of the Legal Agreement, below.

25.4 When considered against the total floorspace for Building B1, the proposed number of spaces will meet the minimum

requirement for staff spaces based on the Unitary Development Plan Standards referred to in the condition (1 space per 250 sqm over a threshold of 500 sqm). Table 25.1 illustrates this.

Use	Office (Class B1)	Retail (A1-A5)
Floorspace	41,035	1,000
Spaces:floorspace	Staff 1 : 250, or part Visitor 10% of visitors	Staff 1 : 250 Customers 1 : 250
Target Provision	164 staff 6 visitor	4 Staff 4 Customers
Actual Provision	174 staff 6 visitor	5 Staff 5 Customers

Table 25.1: Cycle parking provision

25.5 Externally, additional visitor provision is made for 70 cycle spaces within the Zone B public realm. Details of these spaces were approved in the Reserved Matters submission for the Zone B public realm, although amendments to the location of some of the spaces have been proposed as part of the recent (undetermined) B3 submission.

25.6 These details meet the requirements of condition 51.

26 Condition 53 (Gasholder Guide Frames)

26.1 The condition and its reason state:-

No buildings shall be occupied within Development Zone B until:

- a. Approval in writing from the local planning authority has been issued for the exact location for the Gas Holder number 8 guide frame within development zone N shown on drawing KXC005 Rev T;
- b. A contract has been placed for the works of dismantling, refurbishment and re-erection of the Gas Holder number 8 guide frame;
- c. Approval in writing from the local planning authority has been issued for a method statement and programme for the movement and secure storage of the dismantled Linked Triplet Gas Holder guide frames. The means of movement and secure storage of the dismantled Linked Triplet Gas Holder guide frames shall be carried out in accordance with such method statement and programme;
- d. A contract has been placed for the movement and secure storage of the dismantled Linked Triplet Gas Holder guide frames and evidence of such contract has been submitted to the local planning authority; and
- e. A contract has been placed for the relocation and re-provision of the gas governor within development zone V and evidence of such contract has been submitted to the local planning authority; or alternatively written confirmation has been given to the local planning authority that the gas governor will

not be relocated and re-provided.

Reason: To ensure a comprehensive and sustainable development and good design to safeguard the special architectural and historic interest of listed buildings/structures and to protect or enhance the character or appearance of the conservation areas in accordance with the Environmental Impact Assessment, in accordance with policies B7 and KC11 of the London Borough of Camden Replacement Unitary Development Plan 2006.

Response to Condition 53

- 26.2 This condition does not require formal discharge until prior to the occupation of buildings within Zone B.
- 26.3 Notwithstanding this, Gas Holder 8 has already been dismantled and placed into secure storage to enable its refurbishment. It is planned to plan to place a contract for its refurbishment and re-erection next year, 2012. The triplet pieces have similarly been taken off site and stored securely. The replacement gas governor in Zone V is already under construction.

27 Condition 56 (Archaeology – Archaeological Investigation and Mitigation)

27.1 The condition and its reason state:-

“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 for investigation which has been submitted by the applicant and approved by the local planning authority.

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

Response to Condition 56

27.2 Appendix 3 contains an Archaeological Specification for a watching brief for Zones B and E (to include Plot B1) during the proposed enabling and construction works in the ground by IHCM Ltd. Appendix 4 contains the corresponding Written Scheme of Investigation for the watching brief prepared by the nominated contractor, Pre-Construct Archaeology Ltd.

27.3 These documents are submitted for approval by LBC and implementation of the programme of works involved will be secured in accordance with condition 56 before development takes place. These documents have already been approved pursuant to Condition 56 in respect of Buildings B2, B4 and

B6, and the recent Enabling Works submission (ref.2011/3564/P) and are simply being resubmitted in support of subsequent Zone B submissions.

28 Condition 60 (Amenity – Plant Noise)

28.1 The condition and its reason state:-

“Applications for approval of Reserved Matters shall include full particulars of the noise impact of any plant or equipment included in that application which shall meet the following standards unless otherwise agreed in writing by the local planning authority:

(a) noise levels at a point 1 metre external to sensitive facades to be at least 5dB(A) less than the existing background measurement (LA90) expressed in dB(A) when all plant/equipment are in operation;

(b) where it is anticipated that any plant/equipment will have a noise that has a distinguishable, discrete continuous note (whine, hiss, screech, hum) and/or if there are distinct impulses (bangs, clicks, clatters, thumps) special attention to be given to reducing the noise levels from the piece of plant/equipment at any sensitive façade to at least 10dB(A) below the LA90, expressed in dB(A).

Reason: To ensure a sustainable development and to safeguard the amenities of the development and adjoining premises and the area generally and to ensure that the development is carried out in accordance with the Environmental Impact Assessment, in accordance with SD1, SD6, SD7 and KC8 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Condition 60

28.2 In conformity with condition 60, all mechanical plant contributing to the building services will be specified and installed to achieve an acoustic performance at neighbouring

property of at a least 5 dBA below the prevailing baseline, established and approved pursuant to Condition 59.

- 28.3 The preliminary plant selections and acoustic design works undertaken to date demonstrate that compliance with the specified criteria set out in Table 25.1 below would be achieved. These criteria have been derived having regard to the requirements of condition 60 and in the context of the prevailing noise climate established in relation to condition 59. They have been applied to the appropriate assessment, assuming that all non-emergency plant is operating simultaneously. With regard to emergency plant, discussions with the LBC Environmental Health Department have established that this may have a 5 dB relaxation from the relevant criteria for standard plant.

Operational Mode	LAeq Noise Level of all operating plant (dB re 2x10 ⁻⁵ Pa)
Normal	49
Emergency	54

Table 28.1: Plant Noise Emission Criteria (8:00 – 18:00 hours)

- 28.4 To secure compliance with condition 60, a further 5 dB reduction to the above criteria will be made in the case of any plant or equipment within Building B1 where it is anticipated that noise will have the particular characteristics described in clause (b) of condition 60.
- 28.5 The design standards described above to achieve the required acoustic performance will be applied to any alternative plant selections made as a result of further design development. Details of the noise impact of any alternative subsequent plant selections will be notified to the Council.

29 Conditions 64 and 65 (Amenity – Volume of Spoil Removal and Lorry Movements)

29.1 These conditions and their reason state:-

Condition 64

“Unless otherwise agreed in writing by the local planning authority the volume of spoil removed from the site shall not exceed 270,000 cubic metres within any calendar year.

Reason: To safeguard the amenities of the development, the adjoining premises and the area generally and to ensure that the development is carried out in accordance with the Environmental Impact Assessment, in accordance with policies SD6, SD8, SD12, KC6 and TI2 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Condition 65

“Unless otherwise agreed in writing by the local planning authority the number of lorry movements removing spoil from the site shall not exceed 31,500 within any calendar year.

Reason: To safeguard the amenities of the development, the adjoining premises and the area generally and to ensure that the development is carried out in accordance with the Environmental Impact Assessment, in accordance with policies SD6, SD8, SD12 and T12 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Conditions 64 and 65

- 29.2 The spoil arising from earthworks for Plot B1 is addressed in the Earthworks Remediation Plan included to satisfy Condition 18. As set in that report the excavation for Building B1, for a “podium” basement scheme (ie consistent with the new Zone B basement design to be submitted shortly), is estimated at 45,260m³ of spoil, plus a further 4,500m³ to be removed during piling. This is in addition to the spoil to be removed from the approved shared Zone B basement, including the service areas of Buildings B2, B4 and B6.
- 29.3 It is anticipated that the majority of the excavation and soil export will take place in 2012 as part of the wider Enabling Works for Zone B (45,260m³). Further spoil removal may occur in 2013 during work on the sub-structure (4,500m³).
- 29.4 It has also been assumed that the full amount of spoil will be removed by lorry for disposal off-site. The figures therefore represent a worst-case scenario in terms of spoil removal and lorry movements.
- 29.5 Table 29.1 overleaf summarises the anticipated net spoil to be exported from the Kings Cross Central site in the period 2011-2013.

	2,011	2,012	2,013
Eastern Goods Yard	3,000	0	0
Regent's Canal, Goods Way and the Boulevard ('SEFI')	5,600	6,850	0
Building R2	0	0	33,300
Building T1	0	0	0
Building R4	-3,852	0	0
Station Square	110	0	0
Great Northern Hotel	0	0	0
Building T6	6,945	0	0
Building J	10,712	0	0
R5 North	2,335	0	0
<i>Zone B Basement</i>	<i>20,322</i>	<i>37,313</i>	<i>8,995</i>
<i>Building B3</i>	<i>11,358</i>	<i>7,572</i>	<i>0</i>
<i>Building B1</i>	<i>0</i>	<i>45,260</i>	<i>0</i>
Total	56,530	96,995	42,295

Table 29.1: Anticipated net spoil exported from the KXC site (m³) ²

Notes

1 The Zone B Basement is taken to include the communal service road and the basement service areas for B2, B4 and B6, and is based on the revised scheme to be submitted shortly after B1. It does not include the B3 service area, as proposed in the B3 reserved matters submission (2011/4090/P) or the B1 basement as proposed, both of which are identified separately.

2 The table excludes completed projects such as the Shared Service Yard and Interim Service Road.

- 29.6 Table 29.1 demonstrates that, even with the worst-case assumptions outlined above, the peak anticipated spoil remove in 2012, remains significantly lower than the 270,000m³ limit specified by Condition 64.

29.7 Table 29.2 sets out the projected lorry movements arising from this spoil removal, on the assumption of 8.5m³ per lorry.

	2011	2012	2013
Eastern Goods Yard	353	0	0
Regent's Canal, Goods Way and the Boulevard ('SEFI')	659	806	0
Building R2	0	0	3,918
Building T1	0	0	0
Building R4	0	0	0
Station Square	13	0	0
Great Northern Hotel	0	0	0
Building T6	817	0	0
Building J	1,260	0	0
R5 North	275	0	0
<i>Zone B Basement</i>	2,391	4,390	1,058
<i>Building B3</i>	1,336	891	0
<i>Building B1</i>	0	5,325	0
Total	7,104	11,412	4,976

Table 29.2: Anticipated lorry loads of spoil export from Kings Cross Central site

29.8 Table 27.2 demonstrates that, in the peak year (2012), the total lorry loads would be significantly lower than the maximum specified in Condition 65 of 31,500 lorries.

30 Conditions 66 and 67 (Amenity – Lorry Movements Importing Infrastructure and Construction Materials)

30.1 The conditions and their reasons state:-

Condition 66

“Unless otherwise agreed in writing by the local planning authority the number of lorry movements importing infrastructure materials to the site shall not exceed 8,300 within any calendar year.

Reason: To safeguard the amenities of the development, the adjoining premises and the area generally and to ensure that the development is carried out in accordance with the Environmental Impact Assessment, in accordance with policies SD6, SD8, SD12, KC6 and T12 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Condition 67

“Unless otherwise agreed in writing by the local planning authority the number of lorry movements importing construction materials and plant to the site shall not exceed 73,000 within any calendar year.

Reason: To safeguard the amenities of the development, the adjoining premises and the area generally and to ensure that the development is carried out in accordance with the Environmental Impact Assessment, in accordance with policies SD6, SD8, SD12, KC6 and T12 of the London Borough of Camden Replacement Unitary Development Plan 2006.”

Response to Conditions 66 and 67

- 30.2 Infrastructure materials are not defined in the condition or elsewhere in the planning permission document, but adopting a consistent approach with previous Reserved Matters submissions, they are taken to include road/paving build-up, kerbs, lighting poles, manholes/gullies, utility pipes and ducts and associated backfill and bedding provisions, landscape build-up and trees/planting and piling mats.
- 30.3 Infrastructure materials do not make up a materially significant proportion of the incoming materials for Building B1 and therefore the limited amount of infrastructure materials are considered jointly with construction materials in accordance with Condition 67. Taking the two elements together, the estimated number of lorries delivering infrastructure and construction materials to Building B1, together with deliveries to other approved or submitted works in the King's Cross Central development, are set out in Table 29.1, overleaf.

	2011	2012	2013	2014	2015
Eastern Goods Yard	2,000	0	0	0	0
Regent's Canal, Goods Way and the Boulevard ('SEFI')	900	1,500	0	0	0
Building R2	0	0	5,250	5,200	2,450
Building T1	2,440	0	0	0	0
Building T4	3,864	356	0	0	0
Building B2	0	433	676	0	0
Building B4	0	1,190	999	0	0
Building B6	0	486	1437	656	0
zone B Public Realm	0	0	100	100	0
Station Square	81	67	23	19	0
Great Northern Hotel	195	585	0	0	0
Building T6	8,260	12,000	1,800	0	0
Building J	535	3,540	1,820	0	0
R5 North	2,983	3,515	0	0	0
<i>Zone B Basement</i>	<i>0</i>	<i>4,100</i>	<i>2,446</i>	<i>2,430</i>	<i>0</i>
<i>Building B3</i>	<i>0</i>	<i>2,756</i>	<i>3,010</i>	<i>997</i>	<i>0</i>
<i>Building B1</i>	<i>0</i>	<i>0</i>	<i>4,358</i>	<i>3631</i>	<i>0</i>
Total	21,258	30,528	21,919	13,033	2,450

Table 30.1: Projected construction lorry movements, Building B1

30.4 The figures for any one year are therefore significantly below the overall combined yearly limit of 81,300 lorries (8,300 plus 73,000) for infrastructure and construction materials under Conditions 66 and 67.

30.5 These figures are provided so that the Council can monitor compliance with the conditions and do not require approval.

31 Section 106 Legal Agreement Section I – Community Safety

- 31.1 Section I of the Section 106 Legal Agreement requires the developer to offer to provide a Police Office. This is defined as:

“Accommodation of not less than 150sqm NIA to shell and core for use as a police control/IT room and help desk.”

Response to Section I

- 31.2 A Police Office is proposed for the basement mezzanine level, of 150sqm NIA. It will have direct pedestrian/cycle access from the basement access ramp. It is described in more detail in the Urban Design Report for Building B1.
- 31.3 The Metropolitan Police have made it clear during design discussions that they no longer envisage the facility having a public facing help desk role, as the function of the facility now proposed is to provide a base/support for a community policing team that will be visible on patrol and outside of the office facility. The office will not have a help desk role to avoid having to staff this, so reducing officer availability elsewhere, particularly on patrol. The Metropolitan Police therefore indicated that they would prefer a more discreetly sited location without a shop unit type frontage. This led to the proposal to include the office on the basement mezzanine level which meets their requirements.
- 31.4 The location and configuration of the Police Office has been developed in consultation with the Metropolitan Police and a Lease Offer pursuant to Clause 21 of Part 1 of the Legal Agreement was served on 16 August 2011.

- 31.5 Provision of this facility within three months of practical completion of the building will satisfy the developer's obligation under Clause 1 and 2 of Section I, Part 2 of the Section 106 Agreement.

32 Section 106 Legal Agreement Section GG – Bicycle Storage Facility

- 32.1 Section GG of the Section 106 Legal Agreement requires the developer to offer to provide a Bicycle Storage Facility. This is defined as:

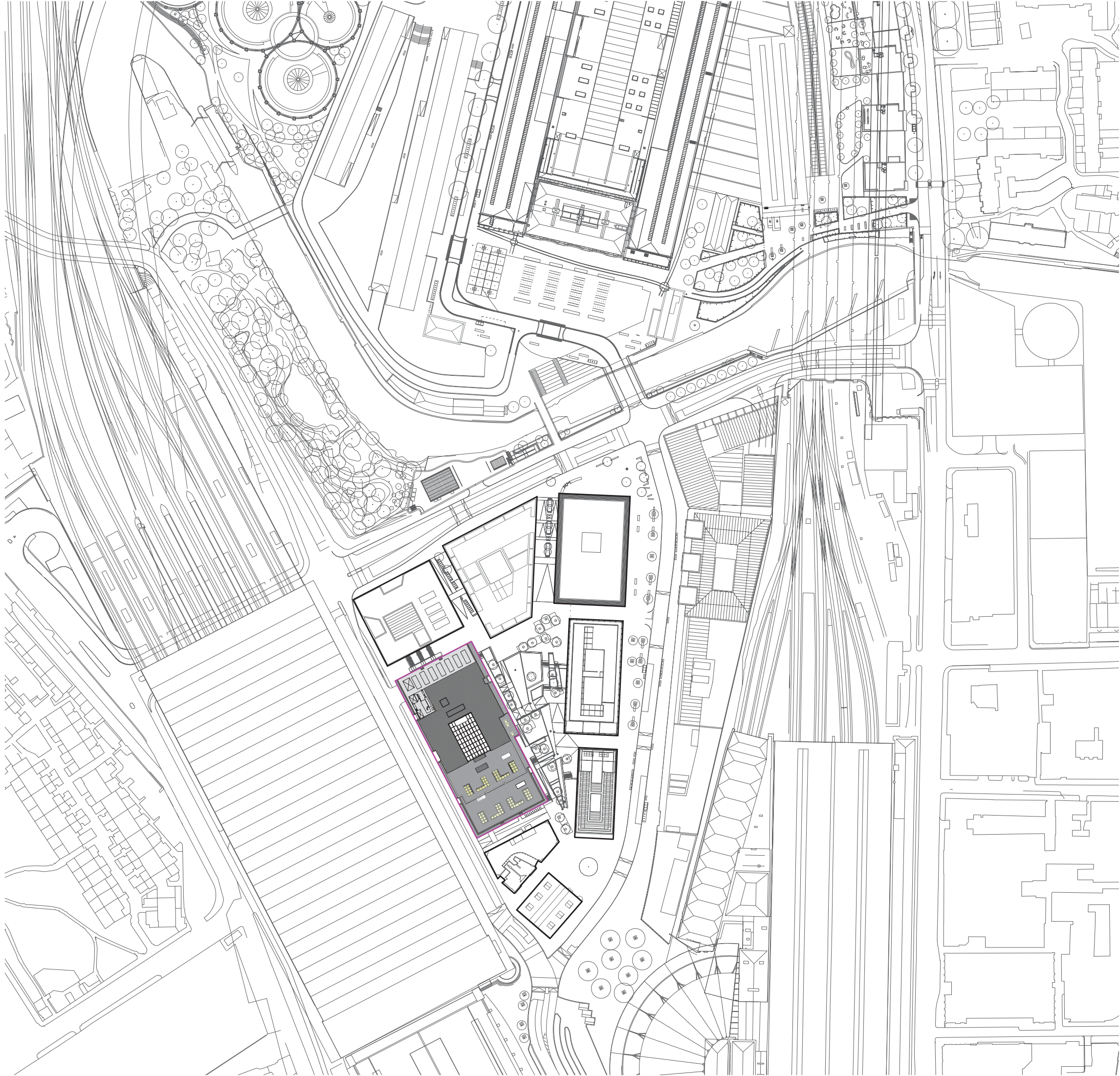
“Accommodation of not less than 810 sqm GIA in the lower ground floor of Plot B1 as shown on attached drawing KXC005 Rev T for use as a public bicycle interchange/storage facility.”

Response to Section I

- 32.2 Plans have been developed to provide a Bicycle Storage Facility that complies with the specification set out in Section GG. An area of 892sqm GEA (815sqm NIA) was identified in discussions with Transport for London and a Lease Offer served in full accordance with Clause 21.
- 32.3 Following a series of meetings and written correspondence, we understand that Transport for London is unlikely to accept the lease offer because of significant changes in TfL's financial position since completing the Section 106 Agreement in 2006 and today. TfL has indicated that it still supports the delivery of some form of public Bicycle Storage Facility at this location.
- 32.4 Consequently, whilst these contractual discussions are being finalised, part of the Bicycle Storage Facility shown on Plan Wuk_1449_PL_51BS50 is identified as either cycle storage or ancillary office storage space. In this way, TfL's position should it ultimately resolve to accept the Lease Offer will not be prejudiced and a unit that meets the specification set in Section GG of the Section 106 Agreement can still be provided. Should TfL however decline the offer there is scope and flexibility to provide a smaller facility in conjunction

with either TfL or other stakeholders.

- 32.5 The area shown for the Bicycle Storage Facility will be located on the lower ground floor, accessed from the pedestrian path running to the south of the building. The facility is described in more detail in the Urban Design Report.



notes

- The contractor is responsible for checking dimensions, tolerances and references. Any discrepancy to be verified with the Architect before proceeding with the works.
- Where an item is covered by drawings to different scales the larger scale drawing is to be worked to.
- Do not scale drawing. Figured dimensions to be worked to in all cases.



Date	Rev	Comment

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Issued by:
WILMOTTE UK Ltd

Purpose of Issue
For Approval


Client




Project
King's Cross Central
Plot B1

Drawing
Site Location

Drawing no Wuk_1440_PL_51SL50		Rev -
Date Drawn	Date Checked	Date Approved
Scale 1:2000 @A3	Date 15.09.11	

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Schedule of Drawings

Drawing Title	Drawing No.	Scale at A3
For approval		
Site Location	WUK_1440_PL_51SL50	1/ 2000
Site Plan	WUK_1440_PL_51SP50	1/ 1000
Basement Floor Plan	WUK_1440_PL_51BS50	1/ 400
Mezzanine Floor Plan	WUK_1440_PL_51MZ50	1/ 400
Lower Ground Floor Plan	WUK_1440_PL_51LG50	1/ 400
Upper Ground Floor Plan	WUK_1440_PL_51UG50	1/ 400
First Floor Plan	WUK_1440_PL_510150	1/ 400
Second Floor Plan	WUK_1440_PL_510250	1/ 400
Third Floor Plan	WUK_1440_PL_510350	1/ 400
Fourth Floor Plan	WUK_1440_PL_510450	1/ 400
Fifth Floor Plan	WUK_1440_PL_510550	1/ 400
Sixth Floor Plan	WUK_1440_PL_510650	1/ 400
Seventh Floor Plan	WUK_1440_PL_510750	1/ 400
Eighth Floor Plan	WUK_1440_PL_510850	1/ 400
Ninth Floor Plan	WUK_1440_PL_510950	1/ 400
TenthFloor Plan	WUK_1440_PL_511050	1/ 400
Roof Plan	WUK_1440_PL_51RF50	1/ 400
North elevation	Wuk_1440_PL_53NO50	1/ 400
East elevation	Wuk_1440_PL_53EA50	1/ 400
South elevation	Wuk_1440_PL_53SO50	1/ 400
West elevation	Wuk_1440_PL_53WE50	1/ 400
North-South Section	Wuk_1440_520150	1/ 400
East-West Section	Wuk_1440_520250	1/ 400
Facade Details 01 West Elevation	Wuk_1440_PL_55WE31	1/ 100
Facade Details 02 West Elevation	Wuk_1440_PL_55WE32	1/ 100
Facade Details 03 West Elevation	Wuk_1440_PL_55WE33	1/ 100

Argent (King's Cross) Ltd

**King's Cross Central -
Southern Area**

Archaeological
Specification for
Development Zones B
and E

February 2010

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number

Contents

		Page
1	Introduction	1
1.1	Objective of this Specification	1
1.2	Outline Planning Conditions	1
1.3	Summary History of King's Cross Central	2
1.4	Background History of Plot B and E	2
1.4.1	Summary	2
1.4.2	General Gas Industry Site History	3
1.4.3	Immediate Archaeological Features Associated with Gasholder No. 8	4
1.4.4	Other Gas Industry Facilities Associated with the Gasholder No. 8 in Development Zones B	4
1.4.5	Urban History and Other Heritage Resources within Blocks B and E	5
1.5	Potential Archaeological Resources South of Regent's Canal	6
1.6	Previous Archaeological Works	6
1.7	The General Character of the Engineering Construction Works in the Southern Area	10
1.8	Archaeological Watching Brief Process	10
2	Details of Enabling Works	12
2.1	Trial Pitting and Borehole Investigations	12
2.2	Site Preparation and Removal of Old Foundations and Obstructions	12
2.3	Construction of Temporary Works	12
2.4	Cut and Fill Earthworks and Including the Treatment and Removal of Soil Contamination	12
2.5	Excavation of Basements, Sumps, Pits and other Small 'Area' Excavations within Buildings	13
2.6	Piling, including forming of Pile Caps and Ground Beams	13
2.7	External Shallow and Deep Buried Services	13
2.8	Hard and Soft Landscaping	13
3	Archaeological Objectives of the Watching Brief	14
3.1	Definitions	14
3.1.1	Archaeological Watching Brief	14
4	Archaeological Programme of Works	15
4.1	General Archaeological Watching Brief Objectives at King's Cross Central	15
4.2	General Archaeological Objectives Prior to Construction	15
4.3	Archaeology During Constuction	15
4.4	Other General Archaeological Undertakings	16
4.5	Specific Archaeological Research Objectives Related to Blocks B and E	16
5	Actions by the Archaeological Contractor Prior to and During the Development Programme on Each Zone	17

6	Salvage	18
7	Provisions to be Made by the Archaeological Contractor after the Site Works on Each Zone	19
8	Provisions by the Principal Engineering Contractors and Developer in Support of the Archaeological Site Works on Each Plot	20
8.1	General Developer Provisions	20
8.2	General Contractor Provisions	20
8.3	Technical Contractor Provisions	20
9	The Archaeological Contractor Nominated for the Watching Brief on Each Plot	22
10	References	23

Figures

- 1 General Location Plan showing Development Zones and Plots
- 2 Zone B Site Superimposed on the Ordnance Survey Plan of 1896
- 3 Test pit locations for previous PBA archaeological investigations

1 Introduction

1.1 Objective of this Specification

Enabling and construction works in the ground are being brought forward as part of the development of Development Zones B and E, which lie in the southern area of the King's Cross Central (KXC) site. Zone B is broken down into 6 separate plots referred to as B1, B2, B3, B4, B5 and B6, which sit around a new piece of principal public realm referred to as Pancras Square. Zone E includes one new building, E1, which will wrap around the existing Grade II listed Stanley Building South. The buildings in Zone B will share a common basement. The basement for Building E1, although separate to the shared Zone B basement, will be accessed via the same. Details of these works will be submitted as reserved matters pursuant to conditions attached to the KXC outline planning permission dated 22 December 2006 (ref: 2004/2307/P), (the 'Outline Planning Permission'). Figure 1 shows the location of the Development Zones and plots.

This Archaeological Specification relates to archaeological mitigation works for **Development Zones B and E**. The mitigation proposed for these zones is consistent with that proposed for all of the plots south and north of Regent's Canal, in order to achieve a holistic approach and ensure the implementation of consistent sets of archaeological investigation objectives and methods, with combined post-site documentation outputs.

The other KXC Development Zones will be separately addressed as buildings in these zones are brought forward for Reserved Matters Approval.

The KXC Environmental Statement submitted with the outline planning application characterizes the Southern Area prior to first phase urban development and then through the many episodes of change and adaptation during the 19th and first half of the 20th centuries – as a dynamic hub of activity between King's Cross and St Pancras Stations, and economic and social decline in the latter decades of the 20th century.

Heritage documentation and mitigation objectives related to the existing Gasholder No. 8 guide frame, are addressed in a Specification and Written Scheme of Investigation for Building Recording and Analysis for the Gasholder No.8 Guide Frame, submitted and approved (application ref. 2008/5668/L) pursuant to Condition 3 of Listed Building Consent 2004/2315/L for the dismantling of the same structure. The recording standards set out in the documents are stated to include the bell and the tank as and when works to these elements are undertaken.

A Specification and Written Scheme of Investigation for Building Recording and Analysis was also submitted and approved in relation to the now demolished Stanley Building North (application ref. 2007/0769/L) pursuant to Condition 3 of Listed Building Consent 2004/2313/L for the demolition of the same building. A separate Specification and Written Scheme of Investigation will be submitted for building recording works relating to Stanley Building South as part of any Reserved Matters submission relating to the same.

1.2 Outline Planning Conditions

Conditions 56 of the Outline Planning Permission requires a programme of 'Archaeological Investigation and Mitigation' to be carried out during the implementation of the scheme. Condition 56 requires:

"the implementation of a programme of archaeological work in accordance with a written scheme of investigation"

For the Southern Area, an Archaeological Watching Brief process was determined to be the appropriate mitigation measure, as identified within the Environmental Statement. This specification sets out the strategy to ensure archaeological objectives are achieved to satisfy Condition 56 and implement the Environmental Statement.

1.3 Summary History of King's Cross Central

In summary, the developmental history of the KXC site, including Zones B and E, is outlined below. It is to be noted that the Sites and Monuments Records and research undertaken for the KXC Environmental Statement do not allow a precise characterisation of the pre-Industrial period archaeological history:

1. Wooded landscape in prehistoric times generally used for ad hoc activities with increasing small clearance for farming from Neolithic times onwards.
2. Agricultural landscape in Roman to Post-Medieval times on the eastern flanking slope of the Fleet Valley.
3. 17th and 18th century shallow quarrying for weathered clayey soils for brick making.
4. Construction of the Regent's Canal in the opening decades of the 19th century.
5. Early 19th century establishment of a gas industry south of Regent's Canal.
6. Phased urban development comprising terraced housing with some areas of commerce and a little light industry, with replacement with some blocks of flats.
7. The mid 19th century creation of the Great Northern Railway Goods Depot then involving the following activities in the Northern Area of KXC:
 - In the north, the terracing back of the gentle south facing slopes to create a sub-horizontal ground surface.
 - In the south, the raising of the ground level with spoil from the north end of KXC, to complete the level landscape as it approaches the Regent's Canal.
 - Construction of an arrangement of buildings servicing the railway industry sited to the south.
 - Construction of a vast network of railway tracks throughout the North Area of KXC.
8. A period of stability of railway, and urban functions from the late 19th century through to after World War II.
9. Early 20th century decline of the gas making industry.
10. Some damage in World War II as a result of German bombing.
11. Decline of the railway functions in the 1960s -1980s with phased demolition of the more major buildings in the Northern Area and removal of many areas of railway sidings.
12. A series of temporary uses in the surviving buildings and open areas. Removal in 2001-3 of all residual railway related buildings and infrastructure. Removal of Stanley Building North and Culross Buildings and upgrading of the German Gym.
13. Large-scale ground disturbances associated with the construction of the Channel Tunnel Rail Link out of St Pancras Station, the LUL Northern Ticket Hall and the KXC Shared Service Yard. Removal of the Triplet Gasholder guide frame. Some remodelling of Pancras Way.

To assist in relating the present-day site topography to its former railway and other uses, Figure 2 is included in this Specification. It shows the site in 1896, at a time when it had reached maximum development and after which changes are relatively minor.

1.4 Background History of Development Zones B and E

1.4.1 Summary

Development Zone B is substantially the former gas works.

The start of the industrial development of the area was initiated by the insertion of the Regent's Canal in the first quarter of the 19th century (opened 1820). This permitted the immediate development of the Pancras Works south of the canal, roughly opposite the Eastern Goods Yard. Further south, generally between King's Cross Station and St Pancras Station, mixed residential and commercial development occurred at this time. As the gas industry expanded and the great railway works were inserted so there was piecemeal changes then some major removal of the residential and light commercial urban fabric.

The gas works ceased making coal gas in 1904, with a brief revival in 1907, and its manufacturing plant was demolished in 1911. The gasholders remained in use, linked to trunk mains.

Zone E and the south west corner of Zone B formerly comprised an area of residential development. Today, only Stanley Building South and the immediate hard landscaping survives. The Stanley Buildings originally included five blocks of approximately 20 m by 12 m. They were purpose-built in 1864-5 as low-rental 'philanthropic' housing by the Improved Industrial Dwellings Co. One five-storey block remains, identified here as Stanley Building South.

Four of the former blocks have been demolished pursuant to Listed Building Consent 2004/2313/L, in order to accommodate the extension of St Pancras Station for the Channel Tunnel Rail Link terminal and for the realignment of Pancras Way.

Stanley Building South is currently unoccupied. It is listed Grade II and lies within the King's Cross St. Pancras Conservation Area.

The Stanley buildings had no basements. Consequently, earlier made ground survives here and forms part of the infill of the historic River Fleet valley.

1.4.2 General Gas Industry Site History

The former gasworks within the KXC site, locally known as the Imperial Gasworks or Pancras Works, was built as the principal works of the Imperial Gas Light and Coke Company. When opened in 1824 this was the largest gasworks in the world. The works was sited alongside the Regent's Canal. It used coal initially delivered to the works by the canal and then later via a viaduct across the Regent's Canal from the Goods Yard. The gas was produced in large retort houses. This was then stored in the gasholders on the site, which acted as reservoirs so that an adequate supply of gas was always available when required. The Gas Light and Coke Co. acquired the Imperial Gas Light and Coke Company in 1876.

The consumption of gas was steadily climbing throughout the second half of the 19th century, in response to London's rising population and prosperity and falling costs in the making of gas. Proportionate increases in gas storage capacity were needed to meet peak demands at all the company's works. With connection by trunk mains to the company's huge Beckton gas works supplementing local production, several of the Pancras gasholders came to be enlarged in the 1880s. By 1900 the works occupied 11 acres (4.6 hectares), of which more than half was devoted to gas storage.

Gasholder No. 8, centrally placed in Zone B, was designed by John Clark, the engineer of the Pancras Works, and its ironwork was built by Westwood and Wrights in 1883. Both they and Clark had been responsible for the 'telescoping' of the three 'Siamese Triplet' Gasholders Nos. 10, 11, and 12, completed in 1880 and located to the north west of Zone B, where the modern canopy of St Pancras Station is now sited. The brick tank of No. 8, set deeply into the ground, had been constructed c.1853 for a previous gasholder, and was now deepened by 2 feet to 28 feet (8.5 m), still considerably less than the exceptional 55 feet (16.8 m) depth of the tanks of the triplet group. So the new bell of No. 8 was given three telescopic 'lifts', within a guide frame some 83 feet (25.3 m) tall, compared with the two lifts, within guide frames 108 feet (32.9 m) tall, of the reconstructed triplet group. With different proportions, the guide frame of No. 8 has only two tiers of columns and girders compared with the three tiers of the triplet group.

All of these guide frames were based stylistically on those of John Clark's father, Joseph, some of whose work may be seen at the Bethnal Green and Bromley-by-Bow gasholder stations.

Although No. 8 is the only gasholder guide frame still standing today on the gasworks site, it may be noted here that in 1886-7 two other gasholders were enlarged and two more were added, with a new style of guide frame in lattice girder construction (with resemblance to the wind girders of St Pancras Station trainshed). There were then no fewer than nine substantial gasholders on the site, seven of which remained until the commencement of the CTRL works in 2001. Several of the gasholder tanks are still found within the ground of Zone B, founded at various depth and backfilled. Developed piecemeal on a constricted site, the holders were smaller and more attuned to the urban setting than some other London gasholders of the period. They presented a remarkable townscape - and landmark for people approaching St Pancras Station by train.

The Pancras Works ceased to make gas in 1904, but the gasholders continued in use, storing town gas piped from other gasworks. In the 1970s town gas was replaced by natural gas brought ashore from the North Sea, although again the gasholders continued in use.

The high-pressure national gas grid established first in the 1960s for the distribution of natural gas has an inherent storage capacity and flexibility, allowing a considerable and ongoing reduction in the national stock of gasholders. However, high-pressure mains cannot be used in built-up areas, and meeting the peaks of demand in large cities remains a problem. The removal of several of the gasholders, necessitated by the alignment of the CTRL and sanctioned by the CTRL Act of 1996, required an augmentation of the regional gas supply network. With that achieved, all of the Pancras Works gasholders were decommissioned and purged of gas in 2000.

1.4.3 Immediate Archaeological Features Associated with Gasholder No. 8

The depth of the brick tank, recorded at 28 feet (8.5 m), is one-third of the full height of the bell, which is some 25 m. To reduce the amount of excavation, it was normal to leave the soil in the central portion of the tank in place, in the form of an inverted cone or "dumpling" to ensure stability of the soil. The bottom of the tank and the sloped sides of this 'dumpling' would be sealed with a layer of puddled clay or concrete if necessary, to prevent leakage of water out of the tank. On this site, the tank will assuredly cut into the underlying impermeable London Clay, and so these surfaces are likely to have received only a thin 'blinding' of concrete.

The wall of the tank will increase in thickness with depth, stepping out several times on the outer face to provide adequate resistance as a compressive ring against earth pressure, which would otherwise tend to force the walls inwards. Vertical piers to support the guide columns will project behind the wall, probably capped with a massive padstone. The inner face of the wall will be a uniform cylinder with vertical iron guides attached to the face. A central pillar in the tank provides support to the bell trusses when the tank is empty.

Immediately adjoining the tank on its south-west side, there is a circular brick well for the pipes that descend beneath the bottom of the tank wall to convey gas into and out of the gasholder bell. This had until 2001 a traditional hand-operated pump, with flywheel, for removing any accumulated water.

1.4.4 Other Gas Industry Facilities Associated with Gasholder No. 8 in Development Zone B

According to Ordnance Survey mapping dated 1871, Development Zone B included the following elements of the gasworks, remnants of which may still be in the ground on site and along the proposed Boulevard and the present day Goods Way:

1. A significant portion of one of the major Retort Houses.
2. Sets of Condensers and Tar Wells.
3. Sets of Boilers and Pumps and Hydraulic Mains.

4. Sets of Scrubbers.
5. Sets of Purifiers.
6. Store House.
7. Crushing House.
8. Gas delivery pipes and machinery.
9. Wells and pumps for topping up the Gasholder tanks.
10. Coal, clinker and coal waste holding pens.
11. A large variety of small cylindrical tanks
12. Offices/stores
13. Associated hard landscaping.

1.4.5 Urban History and Other Heritage Resources within Blocks B and E

Limited development on the southern part of the KXC site took place in the late 18th century, stimulated by 'The New Road', to the south of KXC. The development was substantially one of low quality two storey terraced housing, the layout of which responded to field and property boundaries, the somewhat ad-hoc exploitation of soils for brick/tile making, the Fleet Sewer, and the Small Pox Hospital grounds (under King's Cross Station). Today, the orientations of the German Gymnasium and Stanley Building South, and their surrounding local roads, are based on this first phase development pattern.

There was further piecemeal expansion of the King's Cross residential area in the second and third decades of the 19th century, including the areas of terraced housing bordering Suffolk Street, Cheney Street, Ashby Street, Northampton Street and Norfolk Street south of the gas works, with Upper Edmond Street to the east. These streets were generally located towards the southern end of Development Zone B. This street pattern was diagonally placed across the previous agricultural field pattern.

The housing was typified by 2 storey structures and those on Suffolk Street West possibly having half basements. The houses generally fronted the roads and had rear extension kitchens and with 'privies' set at the bottom of small yards/gardens.

The existing housing between the two stations remained for a few more years. The erection in 1864-5 of the original five blocks of Stanley Buildings, an early project of Sir Sidney Waterlow's philanthropic and profit-restricted Improved Industrial Dwellings Company, responded to existing poor local housing conditions and the imminent dispossession of sites by the Midland Railway. The German Gymnasium, part of a contemporaneous redevelopment on Pancras Road, reflected other aspects of mid-Victorian Society.

Further platforms and sidings were added to the west of King's Cross Station before 1894 including new "docks" for express milk traffic and for horses and carriages (which subsequently became a Motor rail terminal). This facility was within Zone B at the south end. To improve road traffic circulation around the station, a new bridge was built across the enlarged "throat" of the station, with a western approach along the southern edge of the gas works. This was officially named Battle Bridge Road in 1873, possibly in advance of its construction. These works, set at a lower level related to rail tracks entering from the north where joining with the main rail routes passing under the Regent's Canal. The Milk Dock displaced the remaining pocket of back-street houses so that the railway extended west as far as Cheney Street.

By 1894 most of the residential streets had been swept away leaving the Stanley Buildings to the west and the German Gymnasium at the south end of this KXC development area.

Pressure on land made it more difficult for railway workers to find decent affordable housing close to their place of work, and to that end, the Great Northern Railway in 1891-2 erected a tenement-style block of flats along the new Battle Bridge Road called the Culcross Buildings.

It was accompanied by a mission hall, Culross Hall, one of three provided by the company for its employees spiritual needs. The Culross Buildings were totally unrelated to the few remaining earlier buildings in the area, such as the German Gymnasium (1864/5) and the Stanley Buildings (1864/5), and were demolished in 2008 pursuant to Conservation Area Consent 2004/2317/C.

1.5 Potential Archaeological Resources in Development Zones B and E

Related to the two Development Zones are identified the following potential industrial and earlier aged remains, generally noted from north to south:

Block/Plot Reference	Potential Industrial Remains
B3 and B5	Foundations of the Gasholder No. 8 - brick wall to the north.
B5	Gasholder No. 8 foundations.
B3, B4, B5, B6	Gasholder No. 8 buried infrastructure (with some connections to above ground features including an upstanding pump).
B1, B3, B4, B5, B6	Foundations and complex Infrastructure associated with the other gasholders, notably, wells for water used within the gasholder tanks and lots of interconnecting metal pipes.
Mostly B5 and B6	Buildings and related artefacts associated with the gas manufacturing process (see Section 1.4.4 above).
Whole of Zone B	Soil formations associated with the gas works, some of which may be contaminated.
B3 and B5	Surface setts and sub surface make up of Battle Bridge Road.
B1, B2 and B4	Basement and foundations of Culross Buildings.
Zone E and Plot B1	Foundations and surrounding infrastructure to demolished Stanley Buildings.
Generally Zones B and E	Made ground soil formations predating first phase urban development.
Generally Zone B and E	Natural soil formations associated with the Fleet river and valley and generally of prehistoric times, back to the last glaciation.

1.6 Previous Archaeological Works

Associated with the construction of the CTRL there have been some archaeological investigations. The archaeological fieldwork data resulting from these works has not been made available to IHCM for the purpose of supporting mitigation objectives in the southern development plots. It is understood that reports on these investigations have not yet been issued by the Archaeological Contractor for LCR.

There has been some archaeological works in the Southern Area for KXC, associated with the design and procurement of the Boulevard to be located to the east of Zone B and where the Pancras Works was also located, and Pancras Road to the west where Stanley Building North was once sited. Further, as part of earlier submissions to discharge Condition 3 of Listed Building Consent 2004/2313/L and Condition 3 of Conservation Area Consent 2004/2317/C, there has been phased recording of Stanley Building North and the Culross Buildings (both now demolished). All the field work was carried out by Pre Construct

Archaeology Ltd. The table below provides an initial summary of PCA's findings, illustrating the character of the discoveries located in the position shown on Figure 3. The findings are still being evaluated and analysed through the post-excavation programme of archaeological work.

Test Pit Reference	Brief Description
Trial Pit 1	A red brick wall and possible footing was observed at 20.15mOD, aligned north to south, and was 2.64m deep. This wall was only visible on the eastern excavation limit and extended beyond the limits of excavation.
Trial Pit 2	A red brick wall and possible associated brick surface were observed in this pit. The wall was observed at 19.54mOD and extended beyond the limits of excavation in the north of the pit. The surface was observed at 18.29mOD and extended beyond the limits of excavation in the south of the pit.
Trial Pit 3	A modern brick inspection chamber and what appeared to be a concrete pad were observed in this pit. The concrete was observed at 17.44mOD and was 0.52m thick.
Trial Pit 4	Five, probably associated, red brick walls and the remnants of a paved sandstone surface were observed in this pit. The masonry was first observed at 19.28mOD and continued to a depth of 17.68mOD. The sandstone paving was observed at 18.53mOD and was 0.1m deep.
Trial Pit 5	A dark brownish red brick surface was observed between 18.48mOD and 18.08mOD. It was 0.1m thick and extended beyond the limit of excavation.
Trial Pit 6	Two concrete surfaces were observed in this test pit. The upper surface observed at 19.16mOD was 0.3m deep. The lower surface observed at 18.56mOD was 0.4m deep and had dark staining from the ground contaminants.
Trial Pit 7	Was abandoned
Trial Pit 8	Two metal pipes were observed in this pit. One pipe, 0.2m in diameter, was observed at 19.57mOD and was aligned northeast southwest. The other pipe was found to be 0.45m in diameter at 19.15mOD and was aligned northwest southeast.
Trial Pit 9	A curved brick wall was observed at 19.29mOD. The wall was 1.8m high and located on a concrete footing in the eastern part of this pit. The concrete footing was observed at 17.49mOD and was 1.5m deep.
Trial Pit 10	A yellow stock brick wall was observed at 20.17mOD and measured 1.44m north to south, 0.22m east to west. It was of uncertain depth. A metal pipe measuring 0.30m in diameter was observed at 18.93mOD and was aligned northwest to southeast. It was not possible to ascertain a relationship between the wall and the pipe due to the limited scope of the excavations
Trial Pit 11	A concrete wall and its footing aligned east to west were observed at 20.40mOD and 17.56mOD respectively. These extended beyond the limits of excavation. The wall was found to be 2.84m deep but of uncertain thickness and the footing was found to be at least 1.0m wide and of uncertain depth.
Trial Pit 12	The wall of the gasholder was observed at 18.96mOD, this was found to have sandstone blocks capping the brickwork. An interior brick surface was recorded at 18.21mOD and was 0.2m deep. Further excavations inside the gasholder were hampered by the presence of contaminated ground water. The trial pit was excavated to a depth of 4.5m.
Trial Pit 13	The wall of the gasholder was observed at 18.94mOD, this was excavated to a depth of 3.2m. Excavations inside the gasholder revealed that the brickwork stepped in by 0.8m giving the wall an overall width of 1.42m.
Trial Pit 14	A cobbled surface was observed at 19.15mOD, this had been truncated in the east of the pit. No other structures were observed.
Trial Pit 15	Modern reinforced concrete was observed at 18.04mOD and was 0.1m thick. This is possibly the base of the attenuation tank. No other structures were observed.
Trial Pit 16	The cobbled road surface was observed at 19.14mOD (ground level). At

	16.34mOD what appeared to be a thin concrete surface extending beyond the limit of excavation was observed
Trial Pit 17	The cobbled road surface was observed at 19.04mOD (ground level). At 18.64mOD a patchy reddish brown brick surface was found to be 0.1m deep. This extended beyond the excavation limits.
Trial Pit 18	No structures were observed in this pit. Made ground deposits were observed to depth of 4.3m.
Trial Pit 19	No structures were observed in this pit. Made ground deposits were observed to depth of 3.2m
Trial Pit 20	No structures were observed in this pit. Made ground deposits were observed to depth of 1.2m.
Trial Pit 21	Modern services were observed at 17.96mOD. The trial pit was abandoned.
Trial Pit 21a	No structures were observed in this pit. Made ground deposits were observed to depth of 4.5m.
Trial Pit 22	A pipe was observed at 14.20mOD. The excavation was abandoned at a depth of 4.5m.
Trial Pit 23	A cobbled surface was observed at 15.58mOD, this extended beyond the excavation limits. No further structures were observed.
Trial Pit 24	An east-west aligned red brick wall was observed at 14.86mOD, measuring 0.5m in width, 1.04m in height. The wall extended beyond the excavation limits.
Trial Pits 25, 26	These were not excavated.
Trial Pit 27	Only modern backfill was observed. The trial pit was not surveyed due to access problems.
Trial Pit 28	No structures were observed in this pit. Made ground deposits were observed to a depth of 4.5m.
Trial Pit 29	No structures were observed in this pit. Made ground deposits were observed to a depth of 4.5m.
Trial Pit 30	No structures were observed in this pit. Made ground deposits were observed to a depth of 4.5m.
Trial Pit 31	This exposed more of the gasholder's curved wall. This was recorded with a total station due to the presence of contaminants.
Pancras Road	Brief Description
General ground reduction to road formation level for the recreation of Pancras Road - to the south and	Natural clay observed at 15.77 m OD overlain by 19th century made ground including structural remains of the foundation of the original western end of the German Gymnasium. Culvert and footings of 19th century variously found to the south and north of the Gym including of Stanley Building North. The 19th century features found heavily truncated by 20th century ground works. No

north of the German Gymnasium.	formations found of Prehistoric to 18th century date were identified and considered to have been truncated.
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1.7 The General Character of the Engineering Construction Works in the Southern Area

The engineering works (enabling and construction works) will be phased and submitted to the London Borough of Camden as part of the planning process. There is to be a holistic approach to the ground works in Zones B and E, basically comprising the construction of a piled retaining wall, the creation of a double-height basement and piling for each proposed structure.

The relevant works affecting the potential archaeological resources and mitigation undertakings will likely include:

1. Trial pitting to visually inspect the shallow ground conditions and establish the precise location of obstructions buried in the ground.
2. Sinking of bore holes to provide design data in respect of deep ground conditions and foundation designs.
3. Site preparation including the removal of present ground surfaces, any surviving upstanding features and obstructions in the way of proposed ground works.
4. Construction and forming of temporary works.
5. Cut and fill earthworks to new formation level including the treatment of any contaminated soils encountered.
6. Excavation for shallow and deep buried services.
7. Excavation of basements and sumps, pits and other small area excavations.
8. Piling including forming of pile caps and ground beams.
9. Hard and soft landscaping around the proposed buildings, where a large number of known and evaluated heritage features will be removed.

The nature of those works most relevant to archaeology are described in greater detail in Section 2 of this Specification. This is to be read with the engineering and architectural plans and other documents provided in the individual plot submissions.

It is likely that there will be design development prior to construction but not affecting the archaeological mitigation, related to the above types of engineering works.

1.8 Archaeological Watching Brief Process

A series of Archaeological Watching Briefs will accompany the engineering works in the two Development Zones, providing archaeological information to satisfy the aforementioned Planning Condition 56. Section 3 of this specification defines an Archaeological Watching Brief. The Archaeological Watching Briefs will occur wherever there are to be ground works, unless designed out and approved in writing with the London Borough of Camden and English Heritage.

Paragraph 10.8.1 and Table 10.8 of the KXC Environmental Statement sets out the mitigation measures proposed. It confirms that Archaeological Watching Briefs would be in place where any engineering ground works would occur which would encounter made ground from the 19th Century or earlier, or River Fleet Alluvium.

The Watching Brief will conform to standards required by the Institute of Field Archaeologists and the guidelines of the Greater London Archaeological Advisory Service of

English Heritage. The Archaeological Contractor shall be a member of the Institute of Field Archaeologists.

The archaeological officer of English Heritage for the London Borough of Camden, will be given access to monitor the archaeological site and post-site works on behalf of English Heritage and for the London Borough of Camden.

IHCM (International Heritage Conservation and Management) is the Archaeological Consultant to the Employer for this work, Argent (King's Cross) Limited.

The phasing of developments, and thus archaeological works, will allow for a process of adapting and modifying archaeological watching brief objectives.

Note

This specification is one of a series prepared for undertaking Archaeological Watching Briefs in the King's Cross Central scheme. They have common content in regard to general requirements for site and post-site works, together with specific requirements for each development site, based on the nature of the site, the archaeological potential and the works proposed.

2 Details of Enabling Works

The design for the construction of the many buildings and associated hard/soft landscaping within the Southern Area will be detailed within submission documents for each plot scheme. The schemes will include those undertakings referred to in Section 1.7 above. The main processes are explained further below.

2.1 Trial Pitting and Borehole Investigations

The engineering designs for the new construction requires there to be programmes of further geotechnical investigations. These aim to investigate the shallow and deep ground conditions (made-ground, alluvium and London Clay), with observation trial pits and bore holes respectively.

The location of the pits will result from further assessment of the engineering findings and of the planned insertion of temporary and permanent new works and ground obstructions. Many of the pits will be 1 to 5m deep and shored so the pit faces can be hand logged. Some deeper probing may occur, at levels unsafe for general trial pitting excavations. The engineering investigations will also address ground contamination and the need for remediation.

2.2 Site Preparation and Removal of Old Foundations and Obstructions

Each scheme in the Southern Area is to be built in an area of complex ground conditions resulting from more than 200 years of development and change, the latest (modern) phase of which can be presently observed and relates to completion of the CTRL scheme and early KXC works. Section 1.7 above indicates where development related ground works are likely to be located.

2.3 Construction of Temporary Works

Given the scale and scope of the developments within the site, it is likely that the engineering contractors and sub-contractors would need to undertake temporary works. Such works may involve local excavation into the ground for:

- Connections to services.
- Fences.
- Crane bases.
- Foundations for huts.
- Forming hard standing for cars and construction plant.

2.4 Cut and Fill Earthworks and Including the Treatment and Removal of Soil Contamination

Given the industrial and commercial history of King's Cross, it is likely that there are still localities of 'hot-spots' of soil contamination. The contamination, if it is related to 19th century industrial processes, may have a heritage interest, especially where such contamination is associated with structural remains and industrial processes and where the contamination needs treatment or disposal.

It is likely that contamination would be found during earthworks, shallow remodelling of the ground to a new formation level, and at times of excavation associated with basement and infrastructure construction.

2.5 Excavation of Basements, Sumps, Pits and other Small 'Area' Excavations within Buildings

The development proposal includes for permanent spaces set in the ground and includes:

- A shared double-height Zone B basement and single-level basement for Building E1. The latter basement will be accessed via the Zone B basement. Some basements may be formed within a piled retaining wall and / or within temporary works. Some construction may also occur within open excavations with battered faces.
- Duct chambers.
- Lift sumps.
- Headings.

It is the excavation of basements that would provide the greatest opportunity for archaeologically investigating any surviving historic ground conditions and structural remains.

2.6 Piling, including forming of Pile Caps and Ground Beams

The type of buildings being constructed favours piled foundations and a substructure of pile caps/pile rafts and ground beams. The piling may occur before the forming of basements and other below-ground sump structures. For archaeological objectives, piling would allow for assessing ground conditions before larger-scale ground works occur. If basements are formed first, the piling would have no archaeological interest requiring the Archaeological Contractor to monitor their construction.

2.7 External Shallow and Deep Buried Services

The construction works may necessitate diversion of existing buried services and definitely the insertion of new ones. Shallow infrastructure works may be located above soil formations of archaeological interest. Services inserted in trenches below 0.5 m deep, and in areas where there may be physical obstructions and ground contamination, could traverse through or below archaeologically interesting ground conditions.

2.8 Hard and Soft Landscaping

The formation of roads, squares and other open areas will variously replace the presently-found modern and surviving older surfaces, following the insertion of new services.

To achieve the new hard and soft landscaping will also require surface and shallow (0 - 0.5 m below ground level) and deep (0.5 - 2.5 m below ground level) buried archaeological remains to be locally removed.

3 Archaeological Objectives of the Watching Brief

3.1 Definitions

3.1.1 Archaeological Watching Brief

An Archaeological Watching Brief, as recommended by the Institute of Field Archaeologists (IFA, 1994), refers to:

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

In all cases, the watching brief is intended:

"to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works."

"to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support a treatment to a satisfactory and proper standard."

"to establish and make available information about the archaeological resource existing on a site."

The Institute stresses that an Archaeological Watching Brief is not intended to reduce the requirement for excavation or preservation of known or probable deposits, and is intended only to guide, not to replace, any requirement for contingent excavation or preservation of possible deposits.

4 Archaeological Programme of Works

4.1 General Archaeological Watching Brief Objectives at King's Cross Central

The Archaeological Watching Briefs will collect and interpret data from the many site-based engineering components of the development scheme for Zones B and E in the Southern Area of KXC.

The archaeological objectives will be related to:

1. Determining the character of the site and landscape prior to first-phase industrial development, including information about the rural topography with evidence of Prehistoric to Post-Medieval land use; the exploitation of soils for brick making; early commercial development as part of the rapidly expanding early to mid 19th century industrial fabric of London.
2. The mid 18th to early 19th century 'early' urban and commercial land uses, prior to the insertion of the great mid 19th century railway buildings and associated railway facilities.
3. The character of foundations and soils of mid to late 19th century, specifically related to the existing gas and railway related buildings and associated landscaping.
4. Adding archaeological data to that obtained for CTRL and LUL development works that have been taking place for the last few years at King's Cross and St. Pancras.
5. The Archaeological Watching Briefs will also provide specialist advice to the Development Manager (Argent) and the Engineer and the Principal Engineering Contractor for each plot on made-ground and historic engineering features during the site works, if and when discoveries are made. The Archaeological Watching Brief will monitor site works to reduce the chance of accidental damage occurring to retained heritage buildings.
6. Updating Archaeological Watching Brief objectives (project design) from time to time as plots are developed and new schemes arise, responding to findings and interpretation discussions between all concerned parties.
7. For Development Zones B and E, providing one or more interim reports on the findings, planned to be issued during the ground works development programme and a draft final report within six months following the completion of site works in each zone.

4.2 General Archaeological Objectives Prior to Construction

Prior to the start of engineering site works in each zone the opportunity will be taken to investigate a set of archaeological objectives. Some works will be 'archaeologically driven', providing an opportunity to undertake archaeological investigation by 'excavation' and 'strip and map' techniques. These investigations will then be taken off the agenda for being undertaken as Watching Briefs during the construction phase of the scheme.

4.3 Archaeology During Constuction

During the engineering ground works for the scheme a programme of archaeology will be undertaken. The programme will be developed related to the engineering undertakings and

modified to respond to findings made during the pre-development archaeological evaluation works.

4.4 Other General Archaeological Undertakings

It is likely that other archaeological mitigation will be required during the engineering programme of ground works but it is not possible to precisely forecast all of these. This will be subject to discussion with the London Borough of Camden and English Heritage at the time.

4.5 Specific Archaeological Research Objectives Related to Blocks B and E

The following investigation objectives have been formulated for Development Zones B and E:

- 1) Determining of the internal layout arrangements of buildings, and how these relate to map and other contemporary documentation.
- 2) Understanding and documenting construction techniques of the many former buildings on site, especially those associated with the gas production and storage. Examination of any surviving foundations related to the former Stanley buildings and Culross Buildings.
- 3) The finding of any evidence of how the gas industry buildings and structures functioned.
- 4) The detailed examination of the infrastructure.
- 5) Documenting of any surviving evidence of the hard landscape on and around the development footprint.
- 6) The understanding of site preparation of the site ready for first phase urban uses.
- 7) Identification and examination of pre-railway development made-ground and site conditions, including of the possible occupation on the east side of the Fleet valley channel. This may include soil sampling for investigation of the hisitoric environment.

It is not possible to show on a plan where the archaeological programme of works will occur but it is assumed that it would be throughout Zones B and E, where ever there are to be temporary and permanent new ground works.

It is not intended to investigate the whole of Development Zone B given the industrial character of the site. The locations for investigation will be determined as a result of:

- 1) Future engineering site investigations.
- 2) Safety regarding access and ground contamination.
- 3) The engineering sequence and programme of works.
- 4) Site discussions with the London Borough of Camden and English Heritage.
- 5) Evaluation of findings where the works shall occur in phases potentially spanning several years.

5 Actions by the Archaeological Contractor Prior to and During the Development Programme on Each Zone

To satisfy Archaeological investigation requirements, the appointed Archaeological Contractor shall:

1. Provide a Written Scheme of Investigation (WSI) for IHCM, for onward submission to the London Borough of Camden and English Heritage. This shall be approved in writing prior to development work starting on site.
2. Provide a Health & Safety Plan under CDM Regulations and work to it.
3. Obtain an archaeological site code.
4. Be fully familiar with the heritage documentation undertaken by IHCM in the Environmental Statement produced for Argent (King's Cross) Limited – to be provided at tender.
5. Be familiar with archaeological site works carried out for CTRL.
6. Be familiar with the conditions attached to the Planning, Listed Building and Conservation Area Consents associated with the King's Cross Central development.
7. Coordinate the fieldwork programme with Argent, the Engineer, IHCM and the English Heritage archaeological officer representing the London Borough of Camden.
8. Attend, unless otherwise agreed, all works that are on and that penetrate below the present hard landscape surfaces.
9. Generally advise the Principal Engineering Contractor on made-ground and structural features within it, related to the site history potentially spanning Prehistoric to Modern times. Advise on archaeological value of the heritage assets, with an assumption that only remains (including building fabric) of no and low value may be penetrated/removed without the agreement of IHCM and/or Camden/English Heritage.
10. Observe and document, from ground level, machine excavation without shoring and hand digging undertaken by the Principal Engineering Contractor.
11. Descend at agreed times pits and areas less than 1.2 m deep without shoring, and deeper pits with shoring, to observe, explore, photograph and document made ground and alluvial soil formations, structural remains of the various buildings and other archaeological remains.
12. Provide advice to the Principal Engineering Contractor on backfilling and reinstatement, ensuring protection of archaeological features and accurate historic reinstatement respectively.
13. Provide within one week of the end of a watching brief episode a brief 'Initial Summary' of results of the watching Brief, indicating the suspected significance of any observed remains, together with a simplified diagram illustrating the location, depth and adjacent features. The 'Initial Summary' will be submitted by e-mail to IHCM and London Borough of Camden and English Heritage within the one week period from the end of the watching brief. As comprehensive archaeological and geotechnical reports become available from site works in nearby development plots, these will be made available as soon as possible to all relevant parties (and in any event within the timescales specified in Section 7.0), to inform evaluation and mitigation objectives and methods for the development processes being addressed in this Specification.

6 Salvage

The Archaeological Contractor will identify and retain where appropriate archaeological artefacts to determine those with a potential for archaeological archiving; those for reuse within the plot scheme; materials with a potential to be reused within KXC; materials with a potential for reuse on heritage projects elsewhere; and material that can be disposed of. The Archaeological Contractor will ensure appropriate heritage documentation is complete.

IHCM will coordinate archaeological salvage particularly of Hydraulic artefacts that may have an important museum use in London and nationally.

In summary, moveable artefacts found during the archaeological programme of works will be:

1. Recovered and documented by standard archaeological methods.
2. Evaluated for conservation, interest to the development objectives and for heritage value.
3. Typically lodged as part of the archaeological archive.
4. Considered as architectural salvage for reuse within the scheme and KXC, or, considered for a disposal strategy.

No architectural salvage will be necessary within the terms of this archaeological specification, given that a programme of heritage activities related to Gasholder No. 8 has already been approved pursuant to an earlier Reserved Matters submission.

7 Provisions to be Made by the Archaeological Contractor after the Site Works on Each Zone

The following requirements are to be satisfied by the Archaeological Contractor:

1. Provision of a factual and interpretive report on the site works in respect of made ground and alluvial soil formations, structural remains, artefacts and ecofacts. The report shall conform to methods prescribed by 'MAP2', Management of Archaeological Projects Draft 2 (English Heritage, 1991) and by English Heritage Greater London Division (English Heritage, 1998, Archaeological Guidance Papers 3 and 4). The report shall contain text, drawings and photographs as appropriate.
2. Provision of each agreed report in draft one month following the completion of site works, and the final reports one month after receiving comments on the drafts from IHCM.
3. Provision of a completed 'Online Access to the Index of Archaeological Investigation' form (OASIS form) to English Heritage.
4. Lodging of the site paper archive with the Museum of London. Artefacts are to be retained by the landowners or their nominated agency pending consideration of the potential for museum displays.
5. The documents and archive from Plot B and E shall be used with similar from the other development plots to result in an holistic analysis and publication/report on the heritage of KXC.

8 Provisions by the Principal Engineering Contractors and Developer in Support of the Archaeological Site Works on Each Plot

8.1 General Developer Provisions

1. Office and temporary accommodation for the Archaeological Contractor.
2. Male and female washing and lavatory facilities for the Archaeological Contractor.
3. Secure storage for the Archaeological Contractor.
4. CDM Co-ordinator role for CDM Regulations.
5. Contract Manager.

8.2 General Contractor Provisions

1. Production of investigation and construction method statements that reference the integration of archaeological site works.
2. Right of legal entry to the plot and preparation of the site ready for archaeological attendance.
3. All electricity and lighting necessary for archaeological equipment and working conditions.
4. Site induction to ensure safe working methods by archaeologists and approved visitors.

8.3 Technical Contractor Provisions

1. Allow inspection of and provide technical advice on services drawings.
2. With the Engineer or other client representative define all possible constraints that have to be taken into account and including those related to:
 - Nearby Listed Buildings.
 - Conservation Areas.
 - Working near to active railway corridors.
 - Locations where archaeological salvage is required.
3. Dispose of the spoil from the agreed archaeological working areas, if and when necessary.
4. Provide geotechnical advice and information to aid archaeological works and interpretation programme.
5. Prepare and undertake break-out of 20th century structures and soils agreed with the Archaeological Consultant.
6. Provide all supportive works to excavations deeper than 1.2 m, where access is required and the excavation faces are not battered.
7. Break out all unnatural obstructions impeding archaeological works when requested by the Archaeological Contractor.
8. Provide, if necessary, tent covers over evaluation areas to be dug in winter conditions where very sensitive archaeological resources are encountered.

9. Provide labour for moving spoil away from investigation areas, pits and trenches being used for approved archaeological purposes.
10. Provide labour for protecting archaeological surfaces when temporary works are being set in place.
11. Undertake any required reinstatement of the excavation areas incorporating as necessary special protective materials over important/fragile archaeological resources (Terram and / or sand). In practice, little or no reinstatement will be required here, as the excavations will be continued down to formation level.

9 The Archaeological Contractor Nominated for the Watching Brief on Each Plot

The Archaeological Contractor proposed for the Archaeological Watching Brief is:

Gary Brown and Helen Hawkins

Pre-Construct Archaeology Ltd

Unit 54 Brockley Cross Business Centre

96 Endwell Road

Brockley

London SE4 2PD

Tel: 020 7732 3925

Fax: 020 7732 7896

Or, alternatively, the Watching Brief may be undertaken by IHCM to satisfy special client requirements.

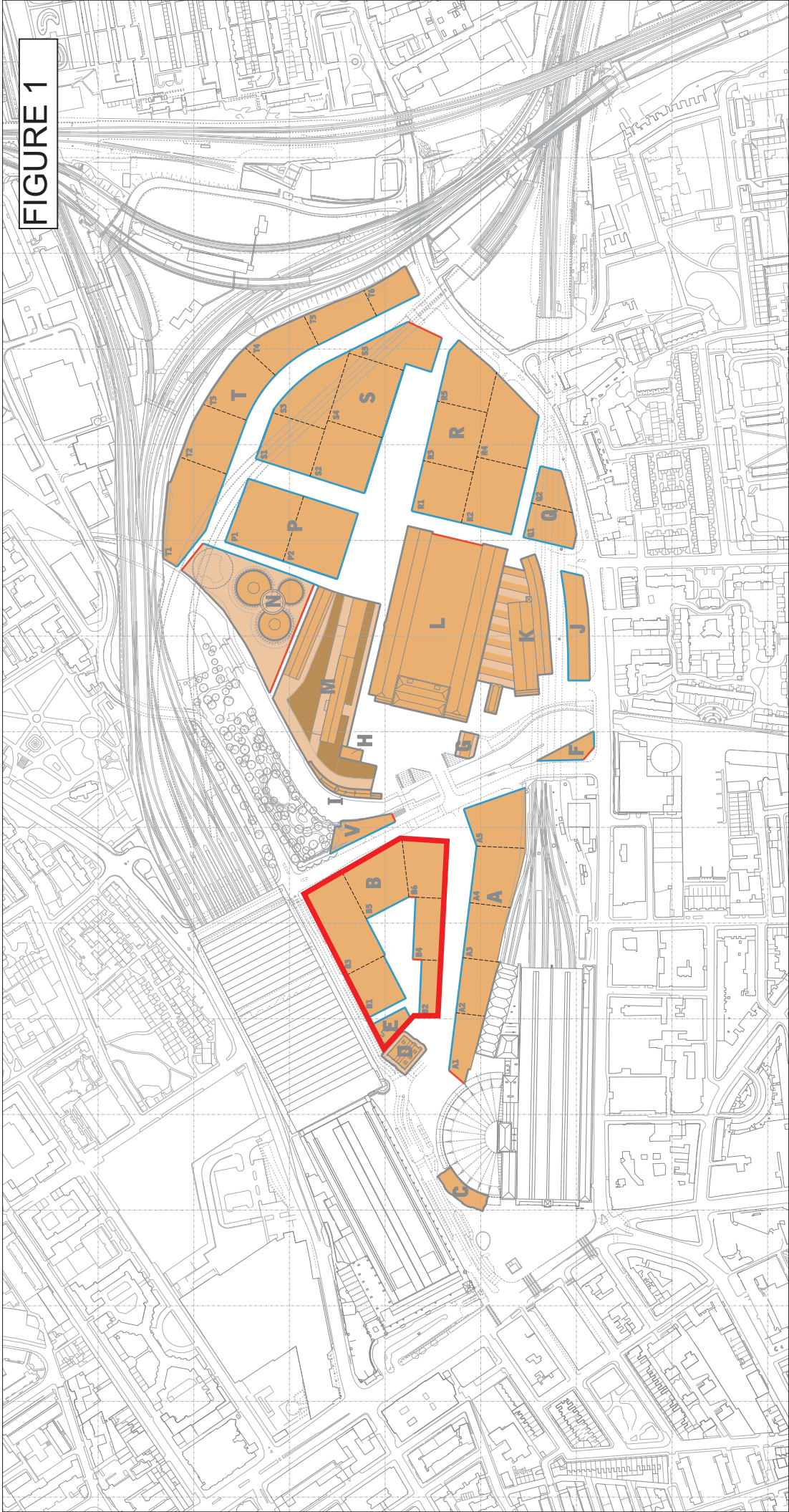
10 References

English Heritage. Management of Archaeological Projects. 1991.

English Heritage. Standards and Practices in Archaeological Fieldwork in London, Archaeological Guidance Paper 3. June 1998.

English Heritage. Archaeological Reports, Archaeological Guidance Paper 4. June 1998.

Institute of Field Archaeologists. Standards for Archaeological Watching Briefs. 1994.



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Argent (King's Cross) Limited

King's Cross Central
Main Site Planning Application
Revised Development Specification
Revised Parameter Plans
Scale 1:4000 @ A3

Key:

- Development Zones
- Development Zone Boundary
- Development Zone Boundary (L.O.D. $\pm 1.0m$)
- Development Zone Boundary (L.O.D. $\pm 5m$)
- Indicative Subdivision into Development Plots
- West Handside Canopy

Study area boundary
(Zone B and E)

In some cases, Development Zones include areas of public realm, as shown in drawing KXC 004. For example, Development Zone M includes the Coal Drops Yard, between the Eastern and Western Coal Drops, which would be refurbished as part of the public realm.

Indicative Position & Orientation for Gas Holder Guide Frames, which would be re-erected within Development Zone N

KXC 005 Development Zones

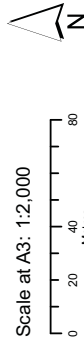
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Figure 2

Boundaries

— Zone B and E - Site Boundary

Note: -
Red line shown on the image was generated
by supplier and does not indicate area of interest



Project Title:

Kings Cross Central - Zone B and E

Drawing Group Title:

Earthworks & Remediation Plan

Drawing Title:

Historic Mapping 1896

Spatial Reference System:

British National Grid

By VC: xx

Chkd: xx

Date: 2009-03-30

Client Name:

Job Number:

67940-13

Figure Number:

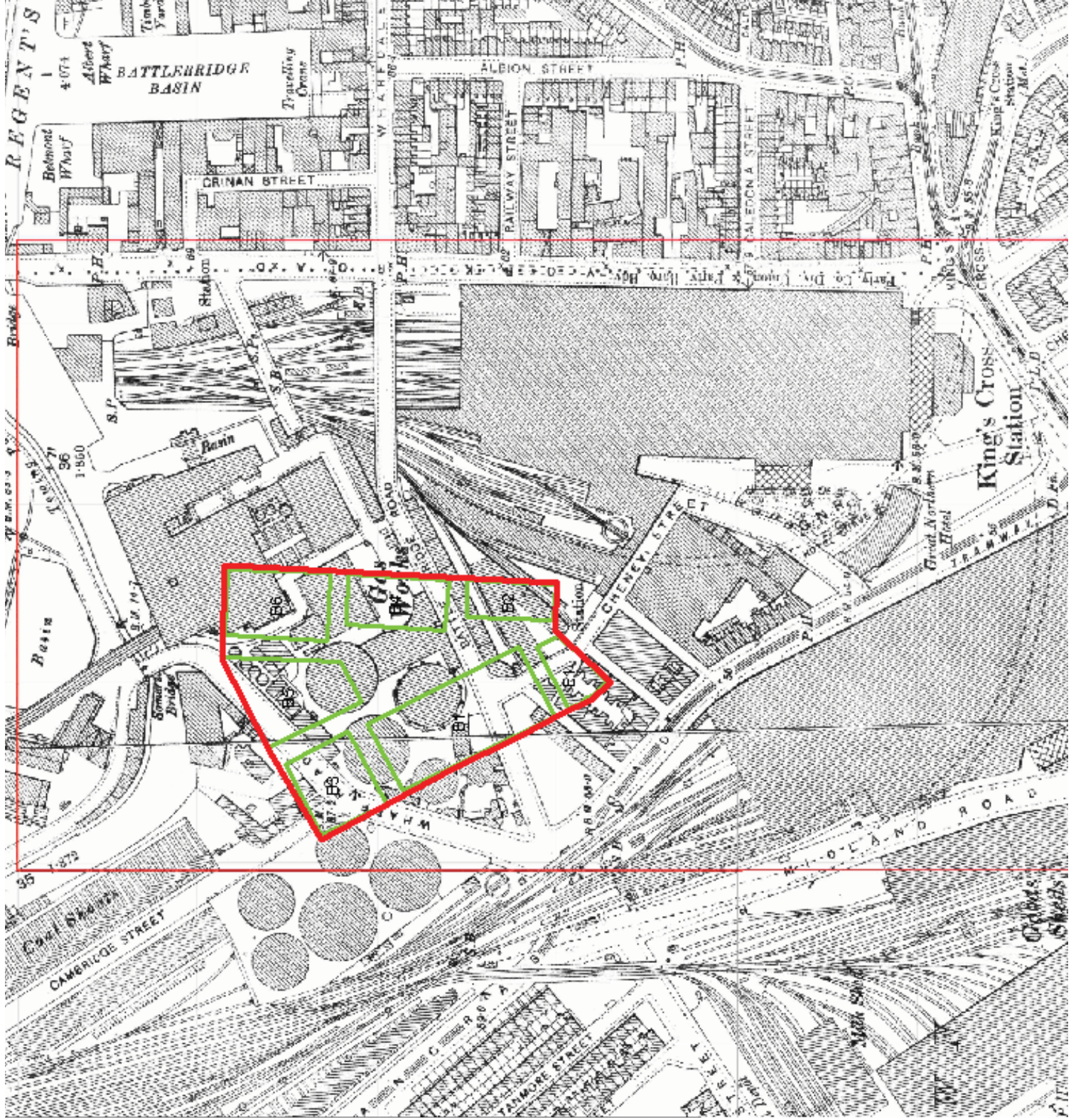
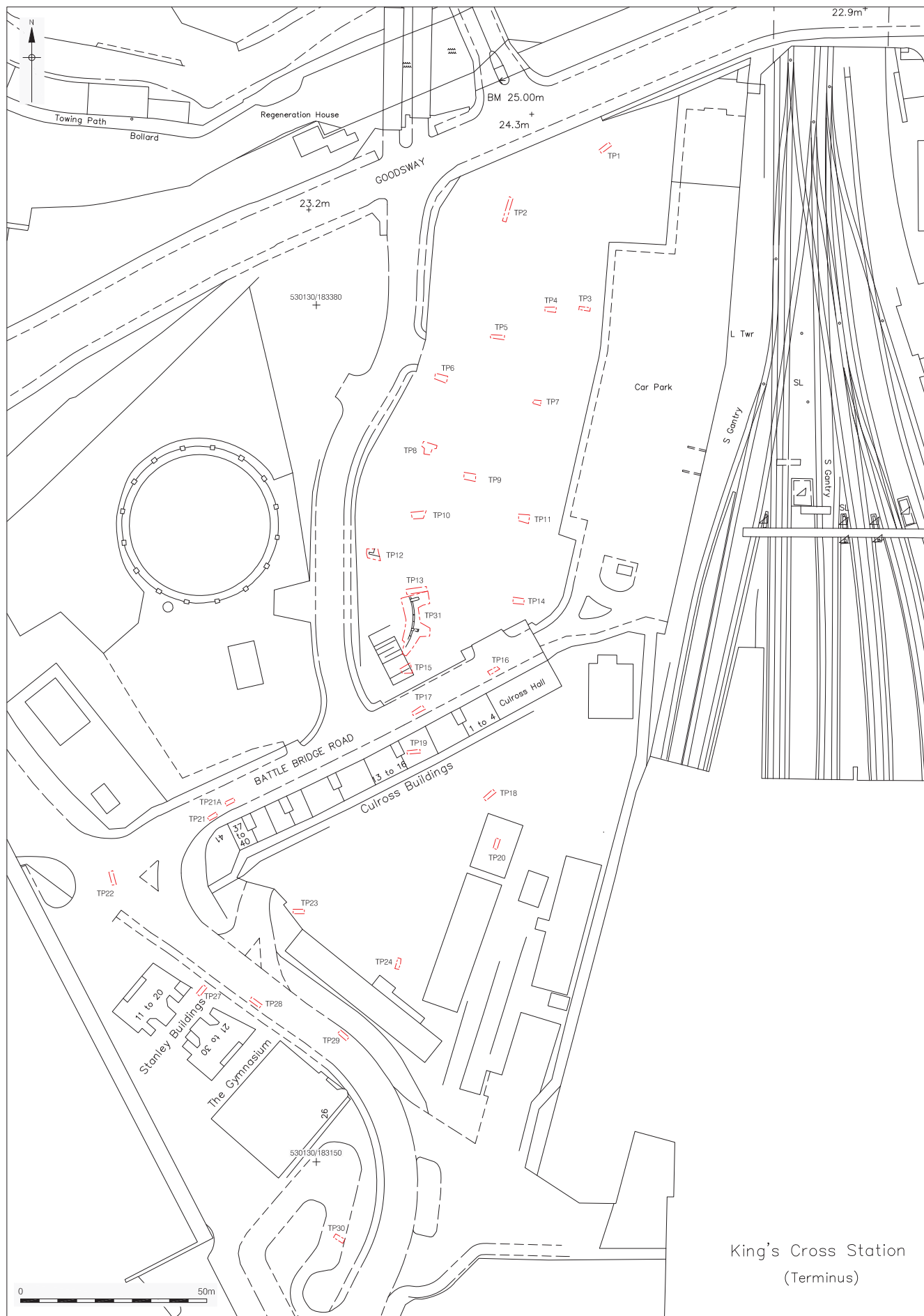


Figure 3



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**WRITTEN SCHEME OF INVESTIGATION
FOR AN
ARCHAEOLOGICAL WATCHING BRIEF
AT
DEVELOPMENT ZONES B AND E
KING'S CROSS CENTRAL
LONDON BOROUGH OF CAMDEN**

FOR

Argent (King's Cross) Limited

Helen Hawkins

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

February 2010

CONTENTS

1	INTRODUCTION	3
2	THE WATCHING BRIEF AND LOCAL EXCAVATIONS	9
3	GROUNDWORKS	10
4	RESOURCES AND PROGRAMMING.....	13
5	TIMETABLE.....	14

1 INTRODUCTION

1.1 Objective of this Written scheme of Investigation

Enabling and construction works in the ground are being brought forward as part of the development of Development Zones B and E, which lie in the southern area of the King's Cross Central ('KXC') site. Zone B is broken down into 6 separate plots referred to as B1, B2, B3, B4, B5 and B6, which sit around a new piece of principal public realm referred to as Pancras Square. Zone E includes one new building, E1, which will wrap around the existing Grade II listed Stanley Building South. The buildings in Zone B will share a common basement. The basement for building E1, although separate to the shared Zone B basement, will be accessed via the same. Details of these works will be submitted as Reserved Matters pursuant to conditions attached to the KXC outline planning permission dated 22 December 2006 (ref: 2004/2307/P), (the 'Outline Planning Permission'). Figure 1 shows the location of the Development Zones and plots.

This Written Scheme of Investigation (WSI) relates to archaeological investigation works for **Development Zones B and E**.

Condition 56 of the outline planning permission 2004/2307/P requires a programme of archaeological investigation and recording be prepared and implemented. Pre-Construct Archaeology Ltd is nominated as the archaeological contractor to undertake these works.

For the Development Zones B and E, an Archaeological Watching Brief process was determined to be the appropriate mitigation measure, as identified within the Environmental Statement. This Written Scheme of Investigation sets out the strategy to ensure archaeological objectives are achieved to satisfy Condition 56 and implement the Environmental Statement.

In preparing this document full reference has been made to the Specification as prepared by International Heritage Conservation and Management Ltd. ('IHCM') which provides the strategy for archaeological investigation and mitigation of the potential effects on Development Zones B and E, as reported in the Environmental Statement. It commits to undertaking appropriate works and directs the contents of the Written Scheme of Investigation provided by the commissioned archaeological contractor. As such, the specification fulfils the requirements of Condition 56 of the Outline Planning Permission.

The 'Archaeological Watching Brief(s)' will be applied to the engineering and construction works within Development Zones B and E, for example:

1. Trial pitting to visually inspect the shallow ground conditions and establish the precise location of obstructions buried in the ground.
2. Sinking of bore holes to provide design data in respect of deep ground conditions and foundation designs.
3. Site preparation including the removing of present ground surfaces, the removal of any surviving upstanding features and removal of obstructions in the way of proposed ground works.
4. Construction and forming of temporary works.
5. Cut and fill earthworks to new formation level including the treatment of any contaminated soils encountered.
6. Excavation for shallow and deep buried services.
7. Excavation of basements and sumps, pits and other small area excavations.
8. Piling including forming of pile caps and ground beams.
9. Hard and soft landscaping around the proposed buildings, where a large number of known and evaluated heritage features will be removed.

The locations of the archaeological works are generally wherever there are to be ground works. Specific undertakings are defined in Section 1.8 above and other locations, but presently not yet determined, can be anticipated.

1.2 Background History of Plot B and E

1.2.1 Summary

Development Zone B is substantially the former gas works.

The start of the industrial development of the area was initiated by the insertion of the Regent's Canal in the first quarter of the 19th century (opened 1820). This permitted the immediate development of the Pancras Works south of the canal, roughly opposite the Eastern Goods Yard. Further south, generally between King's Cross Station and St Pancras Station, mixed residential and commercial development occurred at this time. As the gas industry expanded and the great railway works were inserted so there were piecemeal changes then some major removal of the residential and light commercial urban fabric.

The gas works ceased making coal gas in 1904, with a brief revival in 1907, and its manufacturing plant was demolished in 1911. The gasholders remained in use, linked to trunk mains.

Zone E and the south west corner of Zone B formerly comprised an area of residential development. Today, only Stanley Building South and the immediate hard landscaping survive. The Stanley Buildings originally included five blocks of approximately 20 m by 12 m. They were purpose-built in 1864-5 as low-rental 'philanthropic' housing by the Improved Industrial Dwellings Co. One five-storey block remains, identified here as Stanley Building South.

Four of the former blocks have been demolished pursuant to Listed Building Consent 2004/2313/L in order to accommodate the extension of St. Pancras Station for the Channel Tunnel Rail Link terminal and for the realignment of Pancras Way.

Stanley Building South is currently unoccupied. It is listed Grade II and lies within the King's Cross St. Pancras Conservation Area.

The Stanley Buildings had no basements. Consequently, earlier made ground survives here and forms part of the infill of the historic River Fleet valley.

1.2.2 General Gas Industry Site History

The former gasworks within the KXC site, known as the Imperial Gasworks or Pancras Works, was built as the principal works of the Imperial Gas Light and Coke Company. When opened in 1824 this was the largest gasworks in the world. The works was sited alongside the Regent's Canal. It used coal initially delivered to the works by the canal and then later via a viaduct across the Regent's Canal from the Goods Yard. The gas was produced in large retort houses. This was then stored in the gasholders on the site, which acted as reservoirs so that an adequate supply of gas was always available when required. The Gas Light and Coke Co. acquired the Imperial Gas Light and Coke Company in 1876.

The consumption of gas was steadily climbing throughout the second half of the 19th century, in response to London's rising population and prosperity and falling costs in the making of gas. Proportionate increases in gas storage capacity were needed to meet peak demands at all the company's works. With connection by trunk mains to the company's huge Beckton gas works supplementing local production, several of the Pancras gasholders came to be enlarged in the 1880s. By 1900 the works occupied 11 acres (4.6 hectares), of which more than half was devoted to gas storage.

Gasholder No. 8, centrally placed in Zone B, was designed by John Clark, the engineer of the Pancras Works, and its ironwork was built by Westwood and Wrights in 1883. Both they and Clark had been responsible for the 'telescoping' of the three 'Siamese Triplet' gasholders Nos. 10, 11, and 12, completed in 1880 and located to the north west of Zone B, where the modern canopy of St Pancras Station is now

sited. The brick tank of No. 8, set deeply into in the ground, had been constructed c.1853 for a previous gasholder, and was now deepened by 2 feet to 28 feet (8.5 m), still considerably less than the exceptional 55 feet (16.8 m) depth of the tanks of the triplet group. So the new bell of No. 8 was given three telescopic 'lifts', within a guide frame some 83 feet (25.3 m) tall, compared with the two lifts, within guide frames 108 feet (32.9 m) tall, of the reconstructed triplet group. With different proportions, the guide frame of No. 8 has only two tiers of columns and girders compared with the three tiers of the triplet group.

All of these guide frames were based stylistically on those of John Clark's father, Joseph, some of whose work may be seen at the Bethnal Green and Bromley-by-Bow gasholder stations.

Although No. 8 is the only gasholder guide frame still standing today on the gasworks site, it may be noted here that in 1886-7 two other gasholders were enlarged and two more were added, with a new style of guide frame in lattice girder construction (with resemblance to the wind girders of St Pancras Station trainshed). There were then no fewer than nine substantial gasholders on the site, seven of which remained until the commencement of the CTRL works in 2001. Several of the gasholder tanks are still found within the ground of Zone B, founded at various depth and backfilled. Developed piecemeal on a constricted site, the holders were smaller and more attuned to the urban setting than some other London gasholders of the period. They presented a remarkable townscape - and landmark for people approaching St Pancras Station by train.

The Pancras Works ceased to make gas in 1904, but the gasholders continued in use, storing town gas piped from other gasworks. In the 1970s town gas was replaced by natural gas brought ashore from the North Sea, although again the gasholders continued in use.

The high-pressure national gas grid established first in the 1960s for the distribution of natural gas has an inherent storage capacity and flexibility, allowing a considerable and ongoing reduction in the national stock of gasholders. However, high-pressure mains cannot be used in built-up areas, and meeting the peaks of demand in large cities remains a problem. The removal of several of the gasholders, necessitated by the alignment of the CTRL and sanctioned by the CTRL Act of 1996, required an augmentation of the regional gas supply network. With that achieved all of the Pancras Works gasholders were decommissioned and purged of gas in 2000.

1.2.3 Immediate Archaeological Features Associated with Gasholder No. 8

The depth of the brick tank, recorded at 28 feet (8.5 m), is one-third of the full height of the bell, which is some 25 m. To reduce the amount of excavation, it was normal to leave the soil in the central portion of the tank in place, in the form of an inverted cone or "dumpling" to ensure stability of the soil. The bottom of the tank and the sloped sides of this 'dumpling' would be sealed with a layer of puddled clay or concrete if necessary, to prevent leakage of water out of the tank. On this site, the tank will assuredly cut into the underlying impermeable London Clay, and so these surfaces are likely to have received only a thin 'blinding' of concrete.

The wall of the tank will increase in thickness with depth, stepping out several times on the outer face to provide adequate resistance as a compressive ring against earth pressure, which would otherwise tend to force the walls inwards. Vertical piers to support the guide columns will project behind the wall, probably capped with a massive padstone. The inner face of the wall will be a uniform cylinder with vertical iron guides attached to the face. A central pillar in the tank provides support to the bell trusses when the tank is empty.

Immediately adjoining the tank on its south-west side, there is a circular brick well for the pipes that descend beneath the bottom of the tank wall to convey gas into and out of the gasholder bell. This had until 2001 a traditional hand-operated pump, with flywheel, for removing any accumulated water.

1.2.4 Other Gas Industry Facilities Associated with the Gasholder No. 8 in Development Zones B.

According to Ordnance Survey mapping dated 1871 Development Zone B included the following elements of the gasworks, remnants of which may still be in the ground on site and along the proposed Boulevard and the present day Goods Way:

1. A significant portion of one of the major Retort Houses.
2. Sets of Condensers and Tar Wells.
3. Sets of Boilers and Pumps and Hydraulic Mains.
4. Sets of Scrubbers.
5. Sets of Purifiers.
6. Store House.
7. Crushing House.
8. Gas delivery pipes and machinery.
9. Wells and pumps for topping up the gasholder tanks.
10. Coal, clinker and coal waste holding pens.
11. A large variety of small cylindrical tanks
12. Offices/stores
13. Associated hard landscaping.

1.2.5 Urban History and Other Heritage Resources within Blocks B and E

Limited development on the southern part of the KXC site took place in the late 18th century, stimulated by 'The New Road', to the south of KXC. The development was substantially one of low quality two storey terraced housing, the layout of which responded to field and property boundaries, the somewhat ad-hoc exploitation of soils for brick/tile making, the Fleet Sewer, and the Small Pox Hospital grounds (under King's Cross Station). Today, the orientations of the German Gymnasium and Stanley Building South, and their surrounding local roads, are based on this first phase development pattern.

There was further piecemeal expansion of the King's Cross residential area in the second and third decades of the 19th century, including the areas of terraced housing bordering Suffolk Street, Cheney Street, Ashby Street, Northampton Street and Norfolk Street south of the gas works, with Upper Edmond Street to the east. These streets were generally located towards the southern end of Development Zone B. This street pattern was diagonally placed across the previous agricultural field pattern.

The housing was typified by two storey structures and those on Suffolk Street West possibly having half basements. The houses generally fronted the roads and had rear extension kitchens and with 'privies' set at the bottom of small yards/gardens.

The existing housing between the two stations remained for a few more years. The erection in 1864-5 of the original five blocks of Stanley Buildings, an early project of Sir Sidney Waterlow's philanthropic and profit-restricted Improved Industrial Dwellings Company, responded to existing poor local housing conditions and the imminent dispossession of sites by the Midland Railway. The German Gymnasium, part of a contemporaneous redevelopment on Pancras Road, reflected other aspects of mid-Victorian Society.

Further platforms and sidings were added to the west of King's Cross Station before 1894 including new "docks" for express milk traffic and for horses and carriages (which subsequently became a Motor rail terminal). This facility was within Zone B at the south end. To improve road traffic circulation around the station, a new bridge

was built across the enlarged “throat” of the station, with a western approach along the southern edge of the gas works. This was officially named Battle Bridge Road in 1873, possibly in advance of its construction. These works, set at a lower level related to rail tracks entering from the north where joining with the main rail routes passing under the Regent’s Canal. The Milk Dock displaced the remaining pocket of back-street houses so that the railway extended west as far as Cheney Street

By 1894 most of the residential streets had been swept away leaving the Stanley Buildings to the west and the German Gymnasium at the south end of this KXC development area.

Pressure on land made it more difficult for railway workers to find decent affordable housing close to their place of work, and to that end the Great Northern Railway in 1891-2 erected a tenement-style block of flats along the new Battle Bridge Road called the Culross Buildings. It was accompanied by a mission hall, Culross Hall, one of three provided by the company for its employees’ spiritual needs. The Culross Buildings were totally unrelated to the few remaining earlier buildings in the area, such as the German Gymnasium (1864/5) and the Stanley Buildings (1864/5), and were demolished in 2008 pursuant to Conservation Area Consent 2004/2317/C.

1.3 Potential Archaeological Resources in Development Zones B and E

Potential archaeological resources related to the site are listed below:

Block/Plot Reference	Potential Industrial Remains
B3 and B5	Foundations of the Gasholder No 8 Brick wall to the north
B5	Gasholder No 8 foundations.
B3, B4, B5, B6	Gasholder No 8 buried infrastructure (with some connections to above ground features including an upstanding pump)
B1, B3, B4, B5, B6	Foundations and Infrastructure associated with the other gasholders – of particular note are wells for water used within the gasholder tanks.
Mostly B5 and B6	Buildings and related artefacts associated with the gas manufacturing process
Whole of Zone B	Soil formations associated with the gas works, some of which may be contaminated.
B3 and B5	Surface setts and sub surface make up of Battle Bridge Road
B1, B2 and B4	Basement and foundations of Culross Buildings
Zone E and Plot B1	Foundations and surrounding infrastructure to demolished Stanley Buildings
Generally Zones B and E	Made ground soil formations predating first phase urban development.

Generally Zone B and E	Natural soil formations associated with the Fleet river and valley and generally of prehistoric times, back to the last glaciation.
------------------------	---

1.4 Archaeological Objectives

The strategy defined by IHCM (February 2010) outlines the Archaeological Watching Brief process and references a series of archaeological objectives and these are set out below:

The Archaeological Watching Briefs will collect and interpret data from the many site-based engineering components of the redevelopment scheme. The archaeological objectives shall be related to:

1. Determining the character of the site and landscape prior to first-phase industrial development, including information about the rural topography with evidence of prehistoric to post-medieval land use; the exploitation of soils for brick making; early commercial development as part of the rapidly expanding early to mid 19th century industrial fabric of London.
2. The mid 18th to early 19th century 'early' urban and commercial land uses, prior to the insertion of the mid 19th century railway buildings and associated railway facilities.
3. The character of foundations and soils of mid 19th to early 20th century.
4. Adding archaeological data to that obtained for CTRL and LUL development works that have been taking place for the last few years at King's Cross and St. Pancras.
5. The Archaeological Watching Briefs will also provide specialist advice to the Developer (Argent), the Engineer, and the Principal Engineering Contractor on made ground and historic engineering features during the site works, if and when discoveries are made. The Archaeological Watching Brief will monitor site works to reduce the chance of accidental damage occurring to retained heritage buildings.
6. Updating Archaeological Watching Brief and local Excavation objectives (project design) from time to time, responding to findings and interpretation discussions between all concerned parties.
7. One or more interim reports on the findings are planned to be issued during the ground works development programme and a draft final report within six months following the completion of site works.

The watching brief/s and local excavations will follow both Institute of Field Archaeologists guidelines and the methodologies set out in English Heritage (GLAAS) Guidance Papers¹. All archaeological works will be monitored by GLAAS on behalf of London Borough of Camden and by IHCM on behalf of the developers.

¹ English Heritage, Greater London Archaeology Advisory Service, "Archaeological Guidance Papers: 1 Written Schemes of Investigation; 2 Desk-Based Assessments; 3 Standards and Practices in Archaeological Fieldwork in London; 4 Archaeological Reports; 5 Evaluations", revised June 1998.

2 THE WATCHING BRIEF AND LOCAL EXCAVATIONS

All necessary site investigations and earthworks will be monitored by a suitably experienced archaeologist or archaeologists. The archaeologists will ensure that any archaeologically sensitive remains are recorded, and the relevant parties notified.

Pre-Construct Archaeology Ltd. is a Registered Archaeological Organisation with the Institute of Field Archaeologists.

The attending archaeologist will be provided with additional staff should the workload require it. The implementation of all groundworks will show due consideration for potential archaeological remains and the need to excavate/monitor them.

On completion of the fieldwork proper provision will be made for a full report on the results of the watching brief.

3 GROUNDWORKS

3.1 Method Statement

Areas of groundworks will be broken out by the engineering contractor, whereupon the attending archaeologist will monitor, identify, record and retrieve (as far as possible) archaeological remains that may be uncovered during the course of the invasive works, or, archaeologically excavate them should they be proved to be of high and moderate archaeological significance. Notification of progress will be made to all relevant parties (IHCM, Argent, the London Borough of Camden and GLAAS).

All methodologies set out here are understood as being possible given the likelihood that some contamination is present. This will be confirmed by the results of existing and ongoing site investigations. Prior to commencement PCA will be provided with copies of all ground soil contamination reports and any other appropriate reports in order to determine the level of PPE to be worn.

All gold and silver will be removed to a safe place and reported to the local coroner according to the procedures relating to Treasure Act 1996. Where removal cannot be effected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.

If significant archaeological remains are accidentally encountered during the course of the investigations, or other groundworks, with the agreement of relevant parties, digging will locally stop to allow the archaeological remains to be investigated and recorded by the archaeologist, if not to be preserved *in situ*. Further engineering excavation will then proceed until the desired formation level is achieved. Necessary horizontal and vertical trench faces will be cleaned before recording.

3.2 Access and Safety

Reasonable access to archaeological areas will be arranged for representatives of the London Borough of Camden and other representatives of English Heritage who wish to be satisfied, through site inspections, that the archaeological works are being conducted to proper professional standards and in accordance with the agreements made.

All relevant health and safety legislation, regulations and codes of practice will be respected. The groundworks contractor will be responsible for overall health and safety on the site.

It is assumed that there will be contaminants present at the site and therefore requiring appropriate level of PPE. The engineering contractor shall provide any additional protection for archaeological undertakings should more severe contamination be encountered. A gas monitor should also be provided. Some of the work may be located within the area of the former gasworks. Work in these areas will be undertaken wearing appropriate extra PPE as required. If the archaeologist believes the trench to be contaminated, they will not enter the trench and will seek a second opinion from PCA's health and safety officer.

If the site is considered to be 'confined space' then appropriately qualified staff must be employed as must the appropriate associated equipment.

3.3 Recording Systems

A unique-number site code system will be agreed with the Museum of London.

The recording systems adopted during the investigations will be broadly compatible with those most widely used elsewhere in the Borough. Where there is any doubt as to the appropriate recording technique the Museum of London recording manual will be used.

The site archive will be organised so as to be compatible with the other archaeological archives produced in the Borough. Individual descriptions of all archaeological strata and features excavated and exposed will be entered onto prepared *pro-forma*, for example, Test Pit Recording Sheets. If complex stratigraphy or structures are encountered *pro-forma* Single Context Recording Sheets will be

used. Sample recording sheets, sample registers, findings recording sheets, accession catalogues, and the photography record cards will follow the Museum of London equivalents. This requirement for archival compatibility extends to the use of computerised databases.

A 'site location plan' indicating the site north and based on current Ordnance Survey data (reproduced with the permission of the Controller of HMSO) will be prepared. The location of the OS bench marks used and the site TBM will also be indicated.

Some record of the full extent in plan of any archaeological deposits encountered will be made; these plans will be on polyester based drawing film, will be related to the site grid and at a scale of 1:10 or 1:20. 'Single context planning' will be used on deeply stratified sites. The results will be digitised.

Sections will be drawn to scale or measured sketches will be made according to the relative safety of individual test pits.

The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections, following transfer of information from the engineering contractor.

If the site complexity is such as to justify its use the 'Harris Matrix' stratification diagram will be used to record stratigraphic relationships. This record will be compiled and fully checked during the course of the excavations.

A photographic record of the investigations will be prepared. This will include black and white prints and colour transparencies (on 35mm film), illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted.

3.4 Treatment of Finds

Different sampling strategies may be employed according to the perceived importance of the deposit or feature under investigation. Close attention will be given to sampling for date and structure. Sample size will take into account the frequency with which material is likely to occur.

All finds retrieval policies of the Museum of London will be adopted and all identified finds and artefacts will be retained unless the Museum of London policy states otherwise.

All finds will be treated in a proper manner and will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in the United Kingdom Institute for Conservation's *'Conservation Guidelines No.2'* and the Museum of London's *'Standards for the Preparation of Finds to be Permanently Retained by the Museum of London'*. All metal objects will be x-rayed and then selected for conservation.

Lodging of the site paper archive with the Museum of London. Artefacts are to be retained by the landowners or their nominated agency pending consideration of the potential for museum displays on and off site.

3.5 Reports and archives

A report will be written up summarising the results of the archaeological watching brief on the investigation and earthworks, incorporating the data from the one or more phases of watching brief. The site and area historical, archaeological and geological background, site methodologies, results and any recommendations for further work will be set out and illustrated as appropriate. Copies of the report will be submitted via IHCM to English Heritage, the Borough's Planning Department, the Camden Local Studies Library and Argent.

The integrity of the site archive will be maintained. The finds and records will be available for public consultation. Appropriate guidance set out in the Museum and Galleries Commission's **'Standards in the Museum Care of Archaeological Collections'** (1992) and the Society of Museum archaeologist's draft **'Selection and**

Retention and Dispersal of Archaeological Collections' (1992), will be followed in all circumstances.

If the finds are not to be donated to the appropriate Museum, arrangements will be made for a comprehensive record of all relevant materials (including detailed drawings, photographs and descriptions of individual finds), which can instead constitute the archaeological archive, but see 3.4.4 above.

The minimum acceptable standard for the site archive is defined in the '**Management of Archaeological Projects 5.4'** and '**Appendix 3'**. It will include all materials recovered, (or the comprehensive records of such materials as referred to above) and all written, drawn, and photographic records relating directly to the investigations. It will be quantified, ordered, indexed, and internally consistent before transfer to the Museum of London. It will also contain a site matrix, a site summary and brief written observations on the artefactual and environmental data.

United Kingdom Institute for Conservation guidelines for the preparation of excavation archives for long-term storage (1990) will be followed.

A short summary of the results of the work, even if negative, will be submitted to the Greater London SMR and NAR (using the appropriate archaeological report forms), and for publication in the appropriate academic journals including the 'Excavation Round-Up' of the **London Archaeologist**. Such publications will meet the minimum requirements set out in Appendix 7, '**Management of Archaeological Projects'** 1991, and derive from a 'phase 2 review' as defined in the same document.

4 RESOURCES AND PROGRAMMING

It is imperative that all soil excavation be undertaken under the supervision of an archaeologist in order not to cause unnecessary damage to identified archaeological deposits.

Accommodation, as well as welfare facilities and tool storage, will be required for the watching brief archaeologist and excavation team. It is assumed that these will be provided by the groundworks contractor at or near the site.

The site works will be inspected and monitored by Richard Hughes, IHCM, on behalf of Argent and Kim Stabler, English Heritage (GLAAS), on behalf of English Heritage and the London Borough of Camden.

The Health and Safety policies of Pre-Construct Archaeology Limited will be followed and in accordance with all statutory regulations. Full acknowledgement will be made to existing site policies and procedures.

The archaeological works will be supervised by a member of staff who has undertaken similar exercises.



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