



Sainsbury's Supermarkets Ltd

Foodstore Development, Hamstead

Archaeology and Heritage Desk-Based Assessment

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Arndale Court, Otley Road, Headingley, Leeds, LS6 2UJ

Tel: 0113 219 7109

Email: kirsten.holland@wyg.com



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Prepared by:	Kirsten Holland Principal Archaeologist	Signed:	
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Checked by:	Martin Brown Principal Archaeologist	Signed:	
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Verified by:	Peter Harrison Regional Director	Signed:	
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1.0 Introduction

This Archaeological and Heritage Desk-Based Assessment has been prepared by Kirsten Holland, Principal Archaeologist, WYG on behalf of Sainsbury's to inform a store development proposal in Hamstead, City of Birmingham.

1.1 Aims and Objectives

In accordance with the Institute for Archaeologists (IfA) standard definition of a desk-based assessment (Standard and Guidance for Desk-Based Assessment, 2012):

Desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area. Desk-based assessment will be undertaken using appropriate methods and practices which satisfy the stated aims of the project, and which comply with the Code of conduct, Code of approved practice for the regulation of contractual arrangements in field archaeology, and other relevant by-laws of the IfA. In a development context desk-based assessment will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do so), and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact.

This study examines the cultural heritage potential of the proposed development site and the surrounding area. The aim of the study is to:

- Identify recorded cultural heritage sites within the site boundary;
- Identify the potential for previously unrecorded sites to be present within the site;
- Identify potential impacts and mitigation strategies where appropriate; and
- Make recommendations for further work where required.

Cultural heritage within this context includes all buried and upstanding archaeological remains, built heritage sites, historic landscapes and any other features that contribute to the archaeological and historic interest of the area.



This baseline assessment considers the cultural heritage potential within the site itself, the surrounding area and wider local and regional context. This assessment does not attempt to plot and review every archaeological find and monument; rather it aims to examine the distribution of evidence and to use this to predict the archaeological potential of the study area and the likely significance of the development proposals on those remains.

2.0 Site and Development Description

The development site is located in Hamstead, just within the boundary of Birmingham and close to the borough of Sandwell. The site is centred on SP 05050 92365 (405050, 292365) and lies approximately 100m above the Ordnance Datum. The site is orientated on a north-west to south-east alignment, however for the purposes of this report the boundary to the north of the site aligned on a south-west to north-east will be described as "north" in this assessment. A site location plan can be seen in Appendix A.

The site comprises 2.33 ha of previously developed land, including a number of post war industrial units with elements of office space (totalling approx. 12,984 sq m GEA). These buildings occupy approximately two thirds of the site, with the remainder set out as hardstanding for car parking and deliveries. The office buildings to the west of the site fronting Old Walsall Road (B4124) are three storeys whilst the other buildings are single storey (but with the approximate height of two storey buildings). The site was last used for industrial purposes (Class B1-B8) although it has been vacant for over three years. The boundary of the site is illustrated on Figure 2, Appendix E. Photographs of the site can be seen in Appendix B.

The site is currently accessed from Austin Way, a road exclusively serving the adjoining industrial estate. This connects to Old Walsall Road which is a main road travelling in a north/south direction providing strong links to Birmingham City Centre (5.5km to the south), the M6 motorway (north) and the wider urban area.

The eastern boundary of the site is defined by the railway line and to the west by Old Walsall Road. Austin Way provides the southern boundary and further south east the site is bordered by other employment uses. Beyond the railway line to the north and east is the Baltimore Road Industrial Estate. As such, it is evident that the site forms part of an area that is characterised by employment uses and associated buildings

The proposed development comprises demolition of existing buildings and construction of a foodstore (Class A1), 6 employment units (Class B1-B8), new accesses, car parking, landscaping and associated works. The reader is referred to the Planning Statement and submitted application drawings for full details.



3.0 Methodology

3.1 Assessment Methodology

Impact assessment has been carried out through the consideration of baseline conditions in relation to the elements of the scheme that could cause cultural heritage impacts. Baseline conditions are defined as the existing environmental conditions and in applicable cases, the conditions that would develop in the future without the scheme. In accordance with best practice this report assumes that the scheme will be constructed, although the use of the word 'will' in the text should not be taken to mean that implementation of the scheme is certain.

No standard method of evaluation and assessment is provided for the assessment of impact significance upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State's criteria for Scheduling Monuments (Scheduled Monument Statement, Annex 1), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgment is used in conjunction with these criteria to undertake the impact assessment. The full assessment methodology can be seen in Appendix C.

3.2 Sources Consulted

A study area of approximately 1km radius from the centre of the development site (SP 05050 92365) has been examined to assess the nature of the surrounding cultural heritage sites and to place the recorded sites within their context. In addition a number of other sites immediately outside of this area but relevant to the study have been considered.

This study has been undertaken taking into consideration the historical and archaeological background of the proposed development area. The sources consulted were:

- Birmingham City Historic Environment Record (BHER);
- Sandwell Historic Environment Record (SHER);
- English Heritage and Local Planning Authority for designated sites;
- Historic mapping;



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- Birmingham Record Office; and
- Appropriate documentary sources and archaeological journals.

A site walkover survey was undertaken on 8th August 2012 to assess the site for previously unrecorded heritage remains and suitability for potential evaluation and mitigation measures.

Consultation was undertaken with the Birmingham Historic Environment Record, Sandwell Historic Environment Record, English Heritage, and the Birmingham Record Office for the provision of data for this report.

4.0 Legislation and Planning Policy Context

4.1 Ancient Monuments and Archaeological Areas Act 1979

Scheduled Monuments are designated by the Secretary of State for Culture, Media and Sport on the advice of English Heritage as selective examples of nationally important archaeological remains. Under the terms of Part 1 Section 2 of the Ancient Monuments and Archaeological Areas Act 1979 it is an offence to damage, disturb or alter a Scheduled Monument either above or below ground without first obtaining permission from the Secretary of State. This Act does not allow for the protection of the setting of Scheduled Monuments.

4.2 Planning (Listed Buildings and Conservation Areas) Act 1990

The Act outlines the provisions for designation, control of works and enforcement measures relating to Listed Buildings and Conservation Areas. Section 66 of the Act states that the planning authority must have special regard to the desirability of preserving the setting of any Listed Building that may be affected by the grant of planning permission. Section 72 states that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of Conservation Areas.

4.3 National Planning Policy Framework 2012

The National Planning Policy Framework (NPPF) sets out the Government's national planning policies including those on the conservation of the historic environment. The NPPF covers all aspects of the historic environment and heritage assets including designated assets (World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Conservation Areas, Registered Parks and Gardens and Registered



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Battlefields) and non-designated assets. The NPPF draws attention to the benefits that conserving the historic environment can bring to the wider objectives of the NPPF in relation to sustainability, economic benefits and place-making (para 126).

The NPPF states that the significance of heritage assets (including their settings) should be identified, described and the impact of the proposal on the significance of the asset should be assessed. The planning application should include sufficient information to enable the impact of proposals on significance to be assessed and thus where desk-based research is insufficient to assess the interest, field evaluation may also be required. The NPPF identifies that the requirements for assessment and mitigation of impacts on heritage assets should be proportional to their significance and the potential impact (para 128).

The NPPF sets out the approach local authorities should adopt in assessing development proposals within the context of applications for development of both designated and non-designated assets. Great weight should be given to the conservation of designated heritage assets and harm or loss to significance through alteration or destruction should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional (para 132). Additional guidance is given on the consideration of elements within World Heritage Sites and Conservation Areas (para 138).

Where there is substantial harm to or total loss of significance of a designated heritage asset a number of criteria must be met alongside achieving substantial public benefits (para 133). Where there is less than substantial harm the harm should be weighted against the public benefits of the development (para 134). Balanced judgements should be made when weighing applications that affect non-designated heritage assets (para 134). The NPPF also makes provision to allow enabling development (para 140) and allowing development which enhances World Heritage Sites and Conservation Areas (para 127).

Where loss of significance as a result of development is considered justified, the NPPF includes provision to allow for the recording and advancing understanding of the asset before it is lost in a manner proportionate to the importance and impact. The results of these investigations and the archive should be made publically accessible. The ability to record evidence should not however be a factor in deciding whether loss should be permitted (para 141).



4.4 Local Policy and Guidance

The Birmingham Unitary Development Plan was adopted in 2005 and a number of policies were “saved” by the Secretary of State in 2010 in lieu of the forthcoming publication of the Local Development Framework for Birmingham City Council. The plan contains nine policies relevant to the development and heritage:

- 3.20-3.24: Conservation of the built environment;
- 3.25: Listed buildings;
- 3.26: The local list of buildings of local architectural interest;
- 3.27-3.28: Conservation areas;
- 3.29: Historic landscapes;
- 3.30-3.33: Archaeology; and
- 8.36 Development Affecting Archaeological Remains.

The full text of the relevant policies can be seen in Appendix D.

The Draft Core Strategy for Birmingham has closed for consultation (March 2011) and the consultation responses are currently being considered. The draft strategy is a high level strategic document for the authority. It includes the following objective relevant to heritage:

To protect and enhance the city's heritage and historic environments allowing biodiversity and wildlife to flourish. (Draft Core Strategy, Vision and Objectives)

Birmingham City Council have adopted their Archaeology Strategy (February 2004) as Supplementary Planning Guidance. The Strategy includes five policies relevant to this development and heritage:

- Policy 7 Professional standards;
- Policy 8 Assessment and evaluation;
- Policy 12 Preservation in situ and preservation by record;
- Policy 13 Post-excavation analysis and publication; and



- Policy 15 Archaeological remains in built up areas outside of the city centre.

The full text of the relevant policies can be seen in Appendix D. A Conservation Strategy, Regeneration through Conservation (1994) has also been adopted as Supplementary Planning Guidance, however the document does not contain any further policies directly relevant to this development.

5.0 Baseline Data

5.1 Designated Sites

There are no World Heritage Sites, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens or Registered Battlefields within the study area.

There are four Grade II Listed Buildings and two Locally Listed Buildings (Grade B) within the study area. These are detailed in Appendix E and their locations can be seen on Figure 2. These buildings are either of industrial origin and associated with the canal (Site 409960), river (Sites 217476, 217222) and a former cinema (Site 485389).

There is no detailed information on the Locally Listed Buildings, however they are both associated with the United Reform Church, one being the church itself (Site 181) and the other a church house (Site 182). Grade B buildings, structures or features are important in the city wide context, or make a significant contribution to the local environment. Positive efforts will always be made to retain them.

5.2 Archaeological and Historic Background

The two Historic Environment Records and National Monuments Record hold details for sixteen recorded heritage sites within the study area (excluding designated sites). In addition details were provided by the Birmingham Historic Environment Record for two sites outside the study area of relevance to the assessment. Details of the sites can be seen in Appendix E and their locations can be seen on Figure 2. Bracketed numbers within the text refer to the identifier in the Appendix E table and Figure 2.

5.2.1 Prehistoric (up to 43AD)

In general, until recently evidence of early prehistoric activity, Palaeolithic and Mesolithic, is relatively sparse. Within the wider region of the West Midlands evidence mainly takes the form of lithic finds from sand and gravel quarries, and from river terraces (Buteux & Lang 2002, 7 & 9). Recent work however on a



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number of research projects and infrastructure projects (e.g. M6 toll road) has altered this picture with the discovery of a greater density of sites, particularly of the Bronze Age and Iron Age periods (Hodder 2004, 21).

The nature and current curation of the Palaeolithic evidence formed part of a research project, 'The Shotton Project: A Midlands Palaeolithic Network' with the aim of fostering a better understanding of the material and in its identification (Buteux 2003 cited in Buteux & Lang 2002, 13). No sites of Palaeolithic date have been recorded in the vicinity of the study area.

Excavations at Sandwell priory to the west of the study area have identified over 800 flints of Mesolithic date and a number of stakeholes which may be indicative of temporary shelters (Hodder, 2011, 24). Evidence of the environment from the late Mesolithic period has been recorded during palaeoenvironmental analyses at College Road (Site 21092). The assessment demonstrated that the landscape was in a state of transition from mixed pine and birch woodland to open wet grassland and alder carr. This development of palaeoenvironmental conditions is reflected in another palaeoenvironmental assessment at Tameside Park (Site 20774).

The evidence for Bronze Age activity in the wider region is weighted towards the funerary monuments, settlement evidence proving a rarity (Garwood 2002, 1; Hurst 2011, 104). This evidence has been used to infer evidence of Middle and Late Bronze Age settlement in light of a lack of structural evidence. Rounded mace heads and pebble hammers have been recorded from Perry Common and a palstave from Handsworth (Hodder, 2011, 27) indicating there was activity in the area but there is currently no evidence of settlement. At Tameside Park the palaeoenvironmental analysis demonstrated woodland clearance from the Bronze Age with a subsequent intensification of clearance through the Iron Age and early Romano-British period leading to a grassland environment with possible arable elements (Tetlow *et. al.* 2009).

Iron Age activity in the region is more pronounced than the earlier periods, with enclosed settlements (visible by means of aerial photography) and hillforts being prominent throughout the wider region of the West Midlands (Hurst 2011, 106). The area was still rural and there is no recorded evidence of Iron Age date from the immediate surroundings, however elsewhere to the north-east along the River Tame Iron Age farmsteads have been recorded such as that at Langley Mill on the line of the M6 toll road (Hodder, 2011, 45-7).



5.2.2 Roman/Romano British (43AD to c.450AD)

The study area lies within the Iron Age tribal region of the *Cornovii*, which are located within the north and west of the region (Esmonde Cleary 2011, 141 and Hodder, 2011, 48). There is little known about the nature of the Iron Age/Roman transition due to the paucity of the recorded evidence from both the Iron Age and the Roman periods (Guest 2002, 2).

The line of the Roman road running roughly north–south through modern day Birmingham between the fort at Metchley to the south, and the fort and *burgi* at *Letocetum* (Wall) to the north crosses the Tame at Perry Barr to the south-east of the study area (Ordnance Survey 1994) and was confirmed by excavation of a roadside ditch (Hodder, 2011, 59). There was also a pottery kiln at Perry Barr manufacturing mid second century to third century wares although no structures of this period were found, just the remains of kiln furniture like fire bars (Hodder, 2011, 65-7, 70-3). The excavations also indicated earlier settlement or structures on the site due to the presence of cobbled surfaces and first and early second century pottery. There is also evidence of potential clay extraction in the area from this period (Hodder, 2011, 72, 75).

5.2.3 Early Medieval (450AD to 1066AD)

The early medieval period may be compared to the early prehistoric period in terms of its archaeological invisibility within the region. However, documentary sources and place-name evidence provides evidence for intensive settlement activity in the region at this time (Hooke 2011, 149). The area falls within the Anglo-Saxon territory of *Mercia*, being incorporated by the 8th century (Hooke 2011, 153). Handsworth was recorded in the Domesday Book as *Honesworde* from the Old English meaning “enclosure of a man called Hun”. Perry Barr was also recorded as *Pirio* from the Old English meaning “place at the pear tree” (Mills, 2003). These settlements therefore both have the origins in the early medieval period.

5.2.4 Medieval Period (1066AD-c.1540AD)

The wider region is rich in natural resources. However, as Birmingham itself is not, it had to rely on trade and exchange and a market was in existence by the 12th century (Shaw 2003, 1). As a result of this, Birmingham expanded outwards from a single, original settlement (*ibid.*) and the outlying villages like Handsworth remained separate from the town during this period.

Within the area there was a moated hall at Hamstead (Hamstead Old Hall) which was mentioned in the 13th century (Site 02926). Within the wider area there were also moated sites at Handsworth (Hodder, 2011, 111) and Perry Hall (Hodder, 2011, 122). There was also a corn mill recorded in the Domesday Book within



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Hamstead. It is suggested that the corn mill on the River Tame in Handsworth may have been located on the same site (Site 03207).

5.2.5 Post-Medieval Period (c.1540AD to 1900AD) and Modern (1900AD to present)

The post-medieval period saw a growth in the exploitation of natural resources and with it the establishing of Birmingham as an industrial centre. The Birmingham industries were diverse from brick making and leather working to rope making and metal work. This industrial growth from the 17th century onwards led to the subsequent expansion of the urban centre. The conglomeration of all of the smaller settlements and towns around Birmingham did not however take place until the 20th century

Within Hamstead there were the key industries of the brickworks (Site 20343) and Perry Bar Colliery (Site 20341) in the later post-medieval period. Evidence of extractive pits associated with the brickworks still survives within the modern housing estates as open spaces (Hodder, 2011, 143). The growth in industry within the region was assisted by the completion of the railway lines and canal (Site 5874) which allowed goods to be moved around more efficiently and over greater distances. Within the modern period industries included those supporting the automotive industry such as the development site.

The other key development within the study area was the growth of housing. There were both higher status houses such as Hamstead Hall with its ice house (Site 20018) and heated garden buildings (Site 20019) and large scale residential development from the 1930s onwards. Residential houses are represented within the Listed Buildings in the study area.

6.0 Historic Mapping Survey

A selection of historic maps is presented in Appendix F, but not all maps could be reproduced. Other maps not described here were examined at the Birmingham archives but they did not cover the development site and therefore are not discussed. The earliest mapping examined for the site was a plan of the estate at Perry Barr, surveyed 1794 by Botham. The original was viewed, along with the accompanying survey schedule. Copies were taken of a redrawn map. The map was drawn prior to the construction of the railway and subsequent road realignments. The site was depicted as fields, of slightly irregular shape either indicating early enclosure, or that the fields respected earlier features. The field names were largely descriptive and with the exception of "Brick Kiln Leasow" to the east of the site none of the names indicated potential archaeological remains.



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By the time of the tithe map for the township of Perry Bar in the parish of Handsworth in 1840, the railway had been constructed and the alignment of Walsall Old Road established. The development site was still agricultural fields and whilst the field shapes had changed due to the construction of the railway they remained on the same alignment. A number of other town and parish maps were produced in the intervening years between the tithe and OS maps, however they are not detailed and do not show any development within the site.

By the time of the first edition Ordnance Survey mapping in 1890 the development site was still composed of fields although some amalgamation had taken place and the site was formed of two fields. To the west of the site Tamevalley House and Hamstead Mill were labelled. The second edition OS map, 1904 showed few changes with the exception of the amalgamation of the fields between the railway line and the river. The Ordnance Survey maps of 1916 did not show any further change. By 1937 the network of roads around the site had been laid out in preparation for residential construction but most of the houses had not been built. By 1956 the residential sites had been constructed.

By 1962 a single large square building was shown within the site and noted as "Works". By 1968 this building had been demolished and replaced with a larger Works building which covered almost the whole site. By 1979 this had again been modified to a layout much closer to the existing layout including the link to the office block and medical centre.

7.0 Site Walkover Survey

A site walkover survey was undertaken on 8th August 2012. The weather was bright and dry. Photographs of the site can be seen in Appendix B. The ground level is largely flat across the site. There are two large areas of open car parking covered in hard standing along the western boundary of the site. There is a narrow strip of vegetation and banking along the eastern-most boundary between the buildings and the railway line. The majority of the site is composed of the former industrial buildings. These are all of modern date and are built of a variety of materials including brick, steel and concrete. Although a number of the brick buildings have some earlier features such as blocked roundels, they are not considered to be of heritage interest.

Internally the original fixtures, fittings and former manufacturing hardware have been largely removed with few features still intact. Therefore there are no longer considered to be features of significance and interest relating to the manufacturing processes and social history of the site. The northern-most and tallest building on the site housed the presses. There were a number of large pits within this area that were



constructed for the presses, some of which have been partially filled in. These are continually pumped to stop flooding within the site. Within the other manufacturing areas there were occasional smaller pits. No features of heritage interest were noted during the walkover survey.

8.0 Site Investigations

The following information on ground conditions encountered during site investigations are taken from the Phase I and II report for the development site (Pam Brown Associates, 2012). A copy of the site investigation plan is included in Appendix G. The works comprised the drilling of twelve window sample holes and then a subsequent further 10 to delineate potential contamination. Made ground was encountered in all the holes to depths of between 1.0m and 3.80m below ground level with the greatest depths in the central and south-western areas of the site. The made ground comprised hard standing or topsoil underlain by interbedded layers of clayey gravelly sand, to gravelly sand/sandy gravel. The gravel component was of clinker, ash, brick, burnt shale, concrete and quartz.

Within the central and south-western areas of the site (WS1, WS3, WS5 and WS12) from 1.95m to 2.70m below ground level, a very soft to soft grey/brown sandy slightly gravelly clay with occasional decayed organic matter was encountered. The gravel was quartz and possible brick and the material was recorded as possible made ground above natural superficial deposits. In WS2 this was encountered as very soft sandy clay. Also of note a possible peat layer was recorded between 2.9 and 3.4m below ground level in WS2 and wet gravelly clay with "much organic matter" at 2.0-2.1m below ground level was recorded in WS12.

Natural Superficial Deposits were encountered beneath the made ground to the depth of the window sample holes, materials were recorded as medium dense to dense sand, to sandy gravel and sand and gravel of quartz and sandstone and a firm to very stiff slightly sandy to sandy slightly gravelly clay interbedded with fine sand bands. Sandstone fragments or lithorelicts were also recorded. Sandstone of the Enville Formation may have been encountered in a number of boreholes where further drilling was refused.

9.0 Heritage Potential and Impact Assessment

There are no recorded heritage sites within the development area. The development site is also sufficiently distant from the Listed Buildings and screened by vegetation and other buildings that there will not be any effects on their setting.



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There are not anticipated to be any significant previously unrecorded archaeological remains within the development site. There are no records of early occupation in the area and the site would have lain in a wet, marginal location next to the river for much of history with settlement more likely to have been located on higher, drier ground. Other investigations within the Hamstead region have however demonstrated the potential for palaeoenvironmental deposits to be located within the study area. The site investigations on the site indicate that there are potential alluvial and peat deposits which may be suitable for environmental sampling. These deposits can date from the early prehistoric periods and can give valuable information on the environment of the period, anthropogenic influences on the environment and hence assist the in the development of models for human activity.

The palaeoenvironmental deposits are likely to be of local heritage value as they will assist in developing information about the environment of this immediate area. The nature of foundations for the store will determine the magnitude of impact on the site. Piled foundations will limit the extent of deposits which are affected by the development, however if extensive ground preparation and remediation is undertaken this may affect a greater proportion of the deposits. It is not anticipated that the magnitude of impact would go beyond moderate negative as similar deposits are highly likely to also be present elsewhere within the river corridor. This would result in a minor adverse unmitigated significance of effect.

10.0 Proposed Evaluation and Mitigation Measures

A two stage approach is proposed to mitigate the potential effects on deposits of palaeoenvironmental interest. It is recommended that the results of the ground investigation, including the borehole logs are examined by a specialist geoarchaeologist or palaeoenvironmentalist to assess the potential for the site to contain deposits suitable for palaeoenvironmental sampling and assessment. If they confirm that deposits may be suitable and yield information which will support regional research objectives then a programme of sampling may be designed.

This programme of sampling will be detailed in a Written Scheme of Investigation which will include the initial geoarchaeological and palaeoenvironmental assessment. The scope of any sampling will be dependent on the results of the initial review but is likely to involve taking a number of cores across the site, screening them for palaeoenvironmental remains and then selecting those which will be most productive for detailed analysis. This sampling is considered most likely to be undertaken after demolition has taken place but prior to the main construction works commencing.



In addition to the palaeoenvironmental assessment and sampling outlined above the demolition methodology for the site should take the potential for deposits of heritage value to be identified within the development site and include measures to avoid where possible or minimise disturbance to these deposits.

These works can be undertaken at the post-consent stage and secured by an appropriate condition on the planning consent. The Written Scheme of Investigation should be agreed in advance of any further works with the Birmingham City Archaeologist and be undertaken in accordance with the Institute for Archaeologists standards and guidance and appropriate English Heritage good practice publications.

11.0 Residual Effects and Conclusions

The implementation of a programme of palaeoenvironmental sampling and analysis will mitigate any potential effects on deposits with the potential to yield information about past environments and human influences. The magnitude of impact on any deposits will be reduced to slight negative and the significance of effect will be minor adverse –neutral.



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Historic Mapping

Ordnance Survey, 6" to 1mile / 1: 10,000: 1889, 1904, 1921, 1938, 1956, 1966, 1982, 1999.

Ordnance Survey, 25" to 1mile / 1:2500: 1890, 1904, 1916, 1937, 1962, 1968, 1979, 1992.

Survey of Estate in Perry Barr by Botham, 1795 – Map. Ref: 601705.

Survey of Estate in Perry Barr by Botham, 1795 – Schedule. Ref: 663357.

Plan of Allotments made on wasteland of Perry Barr under the Inclosure Act for Perry Barr and the Property of John Gogh Esq. 1823. Ref: 432792.

Perry Bar tithe map, 1840. ref: 661310.

Plan of the Parish of Handsworth by RH Burman, 1872.

Plan of the District of the Handsworth Local Board, 1879.

Plan of land adjacent to the railway in the township of Perry Barr and Hamstead c. 1880. Ref: MS1246/1.

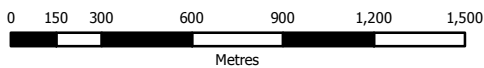
Map of Handsworth Urban District, 1907.



Appendices



Appendix A – Site Location Plan



Arndale Court
 Headingley
 Leeds
 LS6 2UJ
 TEL: +44 (0)113 2787111
 FAX: +44 (0)113 2750623
 e-mail: enviro@wyg.com



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Sheet Size: **A4** Scale of Original: **1:25,000**

Client: **Sainsbury's Supermarkets Ltd**

Project: **Foodstore Development, Hamstead
 Archaeology and Heritage Assessment**

PMC Created:	KRH Checked:	August 2012 Date:	V1 Version:
Site Location Plan			
Office: 4154	Project No: A074777	Figure No: 1	



Appendix B – Site Photographs



Foodstore Development, Hamstead



Photograph 1: Open yard area in west of site (southern half) facing south.

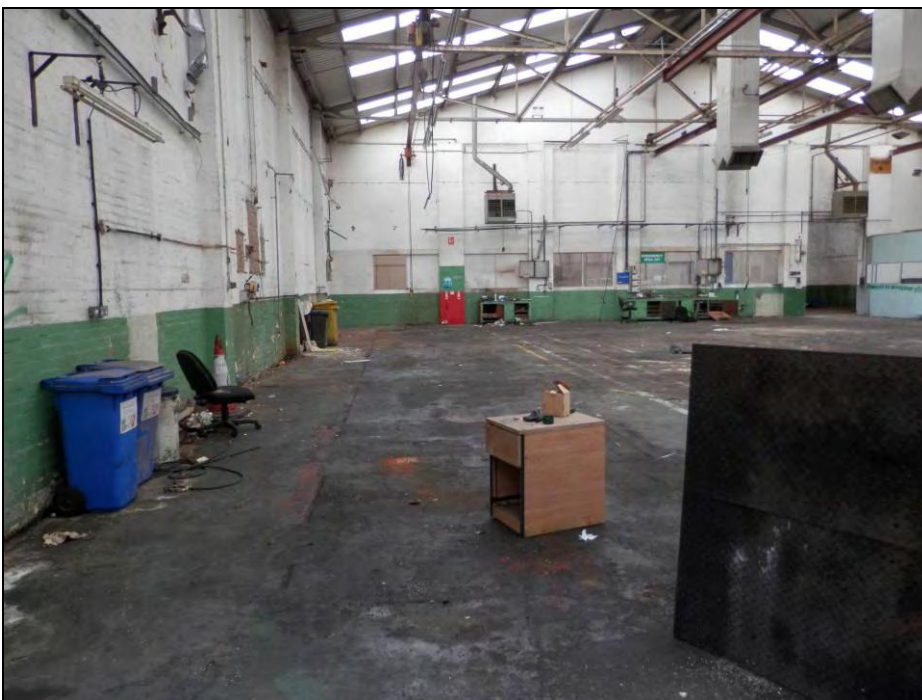


Photograph 2: Open yard area in west of site (northern half) facing west.

Foodstore Development, Hamstead



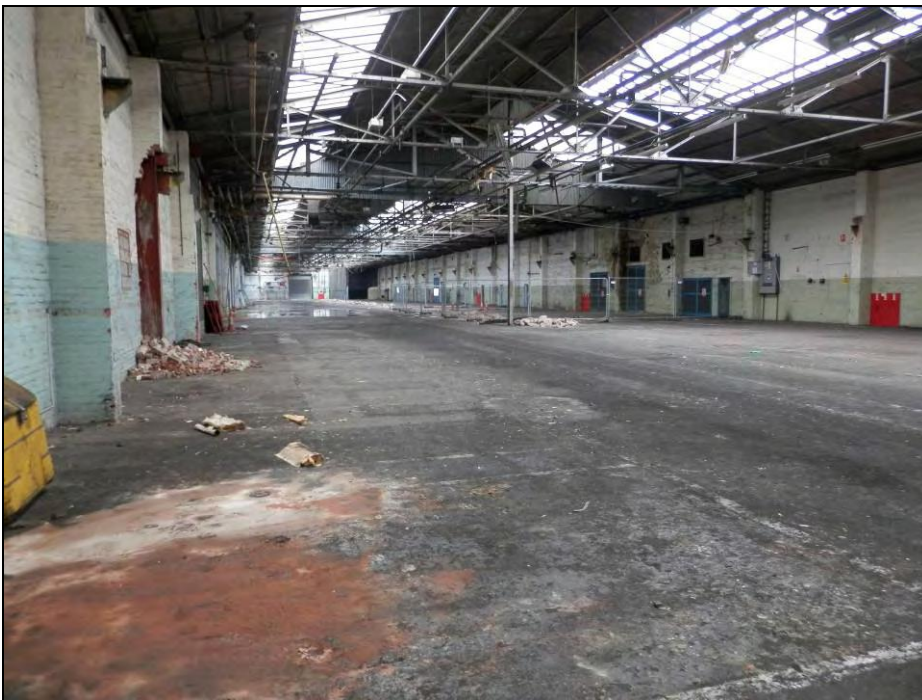
Photograph 3: Elevation of brick built workshop in centre of the site with blocked openings.



Photograph 4: Interior of the tool shop building.



Photograph 5: Workshop with small furnaces, ovens and chimney still present.



Photograph 6: Former heat treatment workshop on the eastern boundary of the site.



Photograph 7: Examples of small channels and pits within workshops.



Photograph 8: Example of a large pit in the press shop.



Photograph 9: Example of a large pit in the former press shop.



Photograph 10: Exterior of the office buildings and workshops with canteen and offices, facing north.



Appendix C – Assessment Methodology



Cultural Heritage Impact Assessment Methodology

No standard method of evaluation and assessment is provided for the assessment of significance of effects upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State’s criteria for Scheduling Monuments (Scheduled Monument Statement, Annex 1), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgement is used in conjunction with these criteria to undertake the impact assessment.

Value

The table below provides guidance on the assessment of cultural heritage value on all archaeological sites and monuments, historic buildings, historic landscapes and other types of historical site such as battlefields, parks and gardens, not just those that are statutorily designated.

Value	Examples
Very High	World Heritage Sites, Scheduled Monuments of exceptional quality, or assets of acknowledged international importance or can contribute to international research objectives Grade I Listed Buildings and built heritage of exceptional quality Grade I Registered Parks and Gardens and historic landscapes and townscapes of international sensitivity, or extremely well preserved historic landscapes and townscapes with exceptional coherence, integrity, time-depth, or other critical factor(s)
High	Scheduled Monuments, or assets of national quality and importance or than can contribute to national research objectives Grade II* and Grade II Listed Buildings, Conservation Areas with very strong character and integrity, other built heritage that can be shown to have exceptional qualities in their fabric or historical association. Grade II* and II Registered Parks and Gardens, Registered Battlefields and historic landscapes and townscapes of outstanding interest, quality and importance, or well preserved and exhibiting considerable coherence, integrity time-depth or other critical factor(s)
Medium	Designated or undesignated assets of regional quality and importance that contribute to regional research objectives Locally Listed Buildings, other Conservation Areas, historic buildings that can be shown to have good qualities in their fabric or historical association Designated or undesignated special historic landscapes and townscapes with



Value	Examples
	reasonable coherence, integrity, time-depth or other critical factor(s) Assets that form an important resource within the community, for educational or recreational purposes.
Low	Undesignated assets of local importance Assets compromised by poor preservation and/or poor survival of contextual associations but with potential to contribute to local research objectives. Historic (unlisted) buildings of modest quality in their fabric or historical association Historic landscapes and townscapes with limited sensitivity or whose sensitivity is limited by poor preservation, historic integrity and/or poor survival of contextual associations. Assets that form a resource within the community with occasional utilisation for educational or recreational purposes.
Negligible	Assets with very little or no surviving cultural heritage interest. Buildings of no architectural or historical note. Landscapes and townscapes that are badly fragmented and the contextual associations are severely compromised or have little or no historical interest.

Magnitude

The magnitude of the potential impact is assessed for each site or feature independently of its archaeological or historical value. Magnitude is determined by considering the predicted deviation from baseline conditions. The magnitude of impact categories are adapted from the Transport Assessment Guidance (TAG Unit 3.3.9) and Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07.

Magnitude of Impact	Typical Criteria Descriptors
Substantial	Impacts will damage or destroy cultural heritage assets; result in the loss of the asset and/or quality and integrity; cause severe damage to key characteristic features or elements; almost complete loss of setting and/or context of the asset. The assets integrity or setting is almost wholly destroyed or is severely compromised, such that the resource can no longer be appreciated or understood. (Negative) The proposals would remove or successfully mitigate existing damaging and discordant impacts on assets; allow for the restoration or enhancement of characteristic features; allow the substantial re-establishment of the integrity, understanding and setting for an area or group of features; halt rapid degradation



Magnitude of Impact	Typical Criteria Descriptors
	and/or erosion of the heritage resource, safeguarding substantial elements of the heritage resource. (Positive)
Moderate	Substantial impact on the asset, but only partially affecting the integrity; partial loss of, or damage to, key characteristics, features or elements; substantially intrusive into the setting and/or would adversely impact upon the context of the asset; loss of the asset for community appreciation. The assets integrity or setting is damaged but not destroyed so understanding and appreciation is compromised. (Negative) Benefit to, or restoration of, key characteristics, features or elements; improvement of asset quality; degradation of the asset would be halted; the setting and/or context of the asset would be enhanced and understanding and appreciation is substantially improved; the asset would be bought into community use. (Positive)
Slight	Some measurable change in assets quality or vulnerability; minor loss of or alteration to, one (or maybe more) key characteristics, features or elements; change to the setting would not be overly intrusive or overly diminish the context; community use or understanding would be reduced. The assets integrity or setting is damaged but understanding and appreciation would only be diminished not compromised. (Negative) Minor benefit to, or partial restoration of, one (maybe more) key characteristics, features or elements; some beneficial impact on asset or a stabilisation of negative impacts; slight improvements to the context or setting of the site; community use or understanding and appreciation would be enhanced. (Positive)
Negligible / No Change	Very minor loss or detrimental alteration to one or more characteristics, features or elements. Minor changes to the setting or context of the site. No discernible change in baseline conditions (Negative). Very minor benefit to or positive addition of one or more characteristics, features or elements. Minor changes to the setting or context of the site No discernible change in baseline conditions. (Positive).

Magnitude (scale of change) is determined by considering the predicted deviation from baseline conditions. Quantifiable assessment of magnitude has been undertaken where possible. In cases where only qualitative assessment is possible, magnitude has been defined as fully as possible.

During the assessment any embedded mitigation has been considered in the impact assessment and this is clearly described in this section (cross referring the development description). Therefore, the magnitude of the impacts described herein will be stated before and after additional mitigation has been taken into consideration.



Impacts may be of the following nature and will be identified as such where relevant:

- Negative or Positive.
- Direct or indirect.
- Temporary or permanent.
- Short, medium or long term.
- Reversible or irreversible.
- Cumulative.

Significance

By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the effect can be determined. This is undertaken following the table below. The significance of effects can be beneficial or adverse.

Significance of Effects	Magnitude of Impact			
	Substantial	Moderate	Slight	Negligible / no Change
Very High	Major	Major – Intermediate	Intermediate	Minor
High	Major – Intermediate	Intermediate	Intermediate – Minor	Neutral
Medium	Intermediate	Intermediate – Minor	Minor	Neutral
Low	Intermediate – Minor	Minor	Minor – Neutral	Neutral
Negligible	Minor-Neutral	Minor-Neutral	Neutral	Neutral

Significance should always be qualified as in certain cases an effect of minor significance could be considered to be of great importance by local residents and deserves further consideration. The significance of effect is considered both before and after additional mitigation measures proposed have been taken into account.

Effects of intermediate significance or greater are considered to be significant effects within the context of planning policy and Environmental Impact Assessment.



Appendix D – Planning Policies



Birmingham Unitary Development Plan - October 2005

3.20: Conservation of the built environment

The historic legacy of Birmingham is considered to be of prime importance, especially as so much was demolished during the redevelopment of the 50s and 60s. Redundant historic buildings offer a range of opportunities for conversion to new uses and can be an important focus for wider urban regeneration schemes. Designated Conservation Areas within the City will continue to provide a powerful means of preserving the best of our historic and architectural heritage and within these areas and other areas identified in the Constituency Statements as of conservation importance, the emphasis will be on protecting and enhancing the individual character and appearance of the particular area. Where appropriate the Council will make use of its powers to control unauthorised development and signage.

3.21: Conservation of the built environment

Not all the City's buildings or areas of architectural interest enjoy statutory protection and consideration will therefore be given to the designation of new Conservation Areas; details of a number of such proposals are given in the Constituency Statements. There will be a periodic review of the Schedule of Listed Buildings and the extent of Conservation Area coverage to determine whether any additions or amendments should be made.

3.22: Conservation of the built environment

Proposals which would adversely affect buildings or areas of architectural interest will not normally be allowed. There are about 1,800 Listed Buildings, 27 Conservation Areas, and nine Registered Parks and Gardens of Special Historic Interest (Highbury Hall and Park, Edgbaston Hall, Birmingham Botanical Gardens, Aston Hall, Sutton Park, Key Hill Cemetery, Westbourne Road Leisure Gardens, The Vale, Edgbaston and Cannon Hill Park) within Birmingham and these will wherever practicable be guaranteed continued long-term protection. In addition, a great number of other buildings within the City are of value because of their local historic, social or architectural interest. Many of these have been included on a 'local list' which will continue to be revised and updated, and every effort will be made to encourage the preservation of buildings of local interest.

3.23: Conservation of the built environment

More generally, the quality of existing buildings and townscape will be taken into account in considering proposals for new development. The City's Conservation Strategy contains more detail on the Council's approach to conserving and enhancing Birmingham's built heritage. The development of the educational, recreational and tourist potential of Conservation Areas and Listed Buildings through management and interpretation will be encouraged.

3.24: Conservation of the built environment

More detailed policies towards Conservation Areas, Listed Buildings, the Local List, Archaeology and Historic Landscapes are set out in paras 3.25 - 3.33 following and in the Conservation Strategy which has been adopted as Supplementary Planning Guidance.



3.25: Listed buildings

Any development affecting a listed building should preserve or enhance its character. Applications affecting Listed Buildings will be considered in the light of the following policies:

- special regard will be given to the desirability of securing the retention, restoration, maintenance and continued use of the buildings of special architectural or historic interest.
- Listed Building Consent will not be granted for the demolition or partial demolition of a Listed Building unless it can be demonstrated that every possible effort has been made to preserve the structure of the building and to continue the present use or to find a suitable alternative use.
- the change of use of a listed building should not have a detrimental effect on the character or appearance of the building.
- any external or internal alteration or addition to a listed building should not adversely affect its architectural or historic character.
- the setting of listed buildings will be preserved and enhanced by the exercise of appropriate control over the design of new development in their vicinity, control over the use of adjacent land, and where appropriate, by the preservation of trees and landscape features.

3.26: The Local List of Buildings of Local Architectural Interest

The Local List includes buildings, structures or features of local architectural, archaeological or historic interest, which do not currently enjoy statutory protection, such as archaeological features or sites, historic parks, gardens and landscapes, and interiors. It is regularly reviewed and updated. The demolition of buildings or destruction of other structures or features on the 'Local List' will be resisted to the extent of the powers available and wherever possible and appropriate, the setting of such buildings will be preserved. Proposals for the demolition, alteration and/or extension of a building on the 'Local List' should ensure that the features of historic or architectural interest are preserved and that all new work and any new buildings are of at least equivalent quality to the original building and make a similar contribution to its setting.

3.27 Conservation Areas

In order to define the special character of Conservation Areas, Conservation Area Character Appraisals and Management Plans will be prepared for all of the City's Conservation Areas. Development proposals within Conservation Areas will be considered in the light of the following policies:

- the development should preserve or enhance the character or appearance of the area, and the demolition of buildings or removal of trees or other landscape features which make a positive contribution to the area's character or appearance will be resisted.
- outline planning permission will not be granted for development within Conservation Areas unless supported by detailed proposals showing siting, design, external appearance and means of access.
- consent to demolish a building in a Conservation Area will [normally] be granted only where its removal or replacement would benefit the appearance or character of the area.
- the development should respect the character of the existing architecture, in scale, grouping and materials, and should generally reflect the character and appearance of the area.



Foodstore Development, Hamstead

- where a detailed Conservation Area Character Appraisal and Management Plan has been prepared for a particular conservation area, this will be a material consideration in determining applications for development within that Conservation Area.

3.28 Conservation Areas

Proposals for development adjacent to Conservation Areas should respect the character and appearance of the Conservation Area.

3.29 Historic Landscapes

The City Council will continue to work with English Heritage to complete the Register of Parks and Gardens of Special Historic Interest for Birmingham. Historic landscapes which do not merit inclusion in the National Register, but which have special local significance, will be added to the City's Local List (see above). Planning proposals should respect the historic context of sites on the Register of Parks and Gardens and their settings. In determining applications the Council will take full account of the historic significance of these areas and seek to protect their distinctive characteristics. Similarly, development proposals that would adversely affect the character and appearance of other parks, gardens and open spaces and their settings will not normally be permitted.

3.30 Archaeology

Archaeological remains are the product of human activity over thousands of years and are valuable both for their own sake and for their role in education, leisure and tourism. There are 10 scheduled Ancient Monuments in Birmingham which are statutorily protected because of their national importance. These and other archaeological remains are included on the Birmingham Sites and Monuments Record.

3.31 Archaeology

There is a need for further improvements to this Record which will continue to be monitored and updated. Wherever possible, sites and remains included on this register and their settings, and in particular scheduled ancient monuments, will be protected and enhanced according to their merits, as will further archaeological remains which may be added to the list.

3.32 Archaeology

The development of the educational, recreational and tourist potential of archaeological remains through management and interpretation will be encouraged where appropriate and where it does not have an adverse effect on the integrity of the remains and their setting.

3.33 Archaeology

More detailed development control policies towards archaeology are set out in paragraph 8.36 and in the Conservation Strategy which has been adopted as Supplementary Planning Guidance. The Archaeology Strategy will also contain detailed guidance on protecting and managing the City's archaeological resource. In addition, the Council will have regard to the advice set out in PPG16.



8.36 Development affecting Archaeological Remains

Development proposals affecting archaeological remains will be considered in the light of the following policies:-

- an assessment of the archaeological aspects of development proposals will be required from applicants before the planning application is determined. Planning permission will not be granted in cases where the assessment of the archaeological implications is inadequate.
- development proposals which will have an adverse effect on scheduled ancient monuments and other nationally important remains and their settings will not be allowed.
- development adversely affecting other known archaeological remains will be resisted although permission may be granted if the applicant has demonstrated that particular archaeological remains will be satisfactorily preserved either in situ or, where this is not feasible, by record.
- where appropriate, Section 106 agreements will be negotiated to protect, enhance and interpret archaeological remains.

More detailed policies are contained in the Conservation Strategy (Supplementary Planning Guidance) and will be included in the Archaeology Strategy which is being prepared as Supplementary Planning Guidance.

Archaeology Strategy – February 2004

POLICY 7 Professional standards:

The City Council will expect all archaeological work in the City to be undertaken in accordance with the Code of Conduct, Standards and Guidance of the Institute of Field Archaeologists to ensure that it is consistent with best professional practice.

POLICY 8 Assessment and evaluation:

Where existing information suggests that a proposed development is likely to affect archaeological remains, above or below ground, the City Council will require a Planning Application, application for Listed Building Consent or application for Conservation Area Consent to be accompanied by an archaeological assessment, normally including an archaeological evaluation, depending on the extent of proposed development and the archaeological sensitivity of the location. Such information should also include details of appropriate mitigation measures. The application will be refused if this information is not submitted.

POLICY 12 Preservation in situ and preservation by record:

Where the City Council considers that preservation in situ of archaeological remains which are not of national importance is appropriate and feasible, it will require design which ensures this. Where it considers that preservation of archaeological remains by record is acceptable because preservation in situ is not feasible or necessary, or there is an opportunity for enhancing knowledge of particular areas or periods, the



Foodstore Development, Hamstead

City Council will require archaeological mitigation measures which maximise the return of archaeological information. Innovative approaches to achieve this will be encouraged.

POLICY 13 Post excavation analysis and publication:

Where the City Council considers that preservation by record of archaeological remains is acceptable and it imposes conditions requiring archaeological excavation in advance of commencement of development, the scheme of investigation must include provision for excavation, post excavation assessment, analysis, preparation of a publishable report and publication in a recognised journal or series. Conditions will not be discharged until the on-site archaeological work has been completed to the satisfaction of the City Council and there is proof that the applicant has satisfactorily secured the implementation of post-excavation assessment, analysis, preparation of a publishable report and publication in a recognised journal or series, deposition of the archive, including finds, arising from the work, and deposition of an electronic archive with the Archaeological Data Service.

POLICY 15 Archaeological remains in built-up areas outside the City Centre:

The City Council will require an appropriate level of archaeological assessment and recording, depending on the extent of proposed development, when application is made for development involving ground disturbance in built-up areas outside the city centre where existing information indicates that there are likely to be archaeological remains.



Appendix E – Recorded Heritage Sites



Listed and Locally Listed Buildings (English Heritage and Historic Environment Record)

Identifier	Grid Reference	Description	Grade
409960	SP 05905 92757	Top (No 1) Lock, Tame Valley Canal, Walsall Road. Built 1841-4. Brick chamber with wing walls and stone coping. Single wooden top gate with two sets of gearing and double wooden bottom gates with a single set of gearing.	II
485389	SP 05630 92916	Clifton Bingo (former Clifton Cinema), Walsall Road. Former cinema, constructed 1937-8 for Clifton Cinema (Great Barr) Ltd, to the designs of Ernest S Roberts of Birmingham. Brick, with steel frame; roof not seen. Large double-height auditorium, with single balcony, with foyers and stairs to front.	II
217476	SP 04848 92566	Bridge over the River Tame opposite Hamstead Station. Red brick, late C18/early C19. Red brick with three semi-circular arches, the balustrades partly repaired and rendered in cement.	II
217222	SP 04946 92270	Bridge over the River Tame built in the late 18th century. A single elliptical arch across the river. Coursed stone, the balustrades mostly of 19th century brickwork and recently repaired.	II
182	SP 048 917	45, Elmwood Church House, Hamstead Hill	B
181	SP 048 917	Elmwood United Reformed Church, Hamstead Hill	B

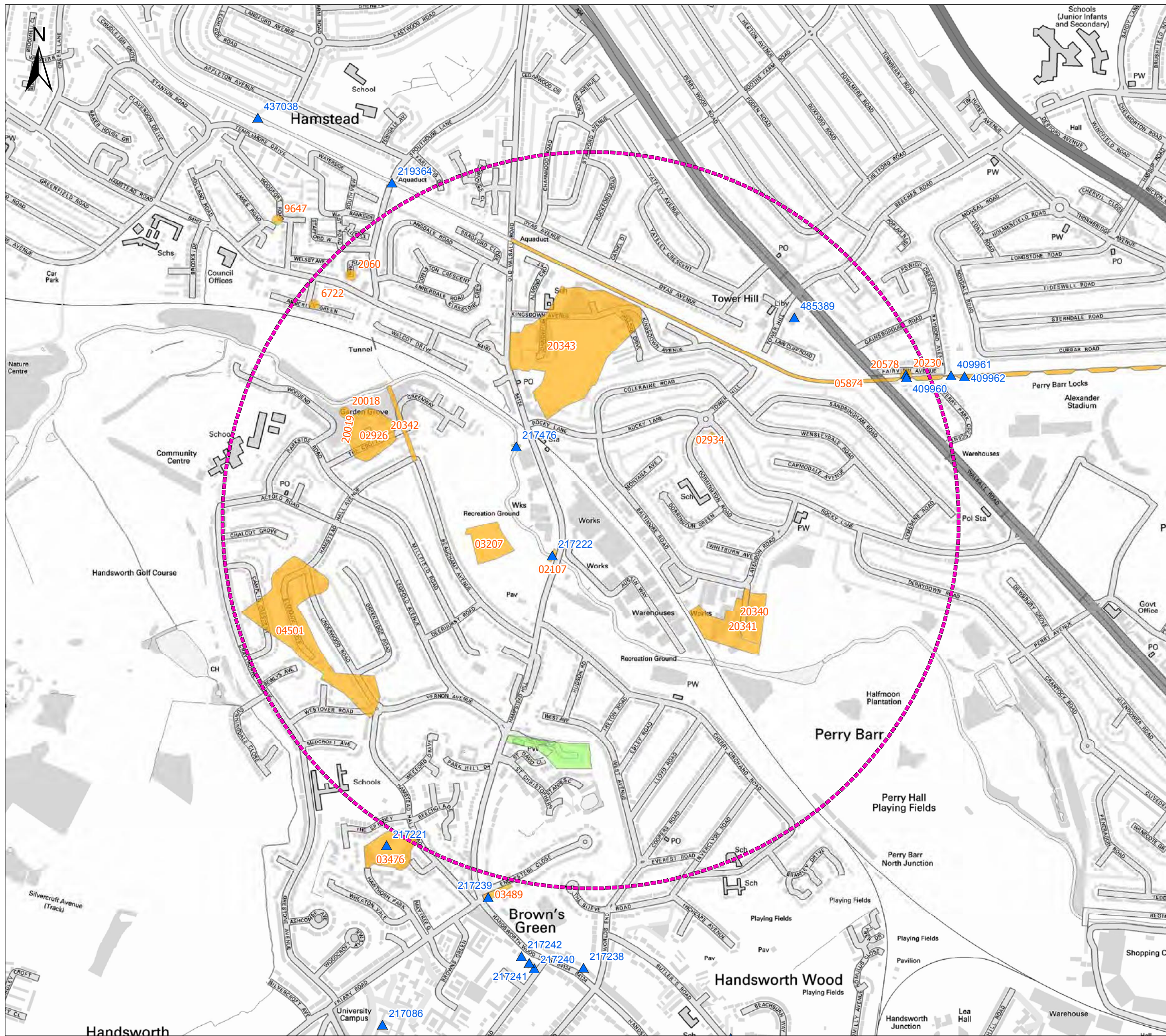


Recorded Heritage Sites (Birmingham Historic Environment Record)

Preferred Identifier	Monument ID	Grid Reference	Period	Summary
20342	MBM1992	SP 04535 92631	Post-Medieval	Raised pathway over tramway from Perry Barr Colliery. Line of tramway visible as slight hollow
20341	MBM1991	SP 05450 92090	Post-Medieval	Perry Bar Colliery. Disused colliery and old shaft.
04501	MBM1591	SP 042 920	Post-Medieval	Hamstead Wood. Site of ancient woodland, since cleared.
02926	MBM812	SP 044 926	Medieval	Hamstead Old Hall and Moat. Mentioned in 13th century and had a chapel in 1663. Shape of moat reflected in later garden wall.
02934	MBM820	SP 05375 92586	Post-Medieval	The building described as 'Manor House' on OS 6" has been demolished and the site is now a housing estate. No literary references were found during recording.
20340	MBM1990	SP 05450 92090	Post-Medieval	Pumping station and water shaft, on site of Perry Barr Colliery.
20343	MBM1993	SP 04910 92900	Post-Medieval	Brickworks, with building and kilns and a claypit to east of these shown on O.S. map of 1885.
03207	MBM938	SP 048 923	Post-Medieval	Hamstead Corn Mill. This was the last surviving corn mill on this stretch of the Tame. It may well have stood on the site of the mill in Handsworth recorded in the Domesday survey and was still operating in 1920. Demolished in 1960s. Situated where the valley is constricted by a spur it was powered by a leat or pool held back by a dam.
05874	MBM1983	SP 07962 91994	Post-Medieval	Tame Valley Canal.
20018	MBM1664	SP 044 927	Post-Medieval	Ice House for Hamstead Hall. Built 1776, circular in plan with projecting entrance way. Entrance damaged but there are indications there were two doors which formed a vestibule or cut-off from the atmosphere outside.
20019	MBM1665	SP 044 926	Post-Medieval	Brick wall of garden of Hamstead Hall. Cavity wall with sooting indicates former heated greenhouse.



Preferred Identifier	Monument ID	Grid Reference	Period	Summary
21092	MBM2758	SP 0731 9225	Mesolithic	Abundant pollen in organic deposit dated to late Mesolithic from the College Road evaluation. The assessment demonstrated the landscape was in a state of transition from mixed pine and birch woodland to open floodplain grassland and a wetter alder carr environment as a result of paludification from changes to the fluvial regime of the River Tame. No significant evidence for anthropogenic change such as clearance for arable was observed.
20774	MBM2433	SP 07259 92050	Late Neolithic to Roman	Alluvial deposits containing pollen and beetles were identified during geotechnical surveys. Samples were taken from a palaeochannel during evaluations. The earliest levels indicated dense woodland and the upper levels open grass and sedge habitats. The line of Roman road and possible mill leat were also identified by desk-based assessment.
2060	MBL2623	SP 0440 9303	Post-Medieval / Modern	Hamstead Colliery pit head baths. Now Kings public house. Single storey built of light brown brick, Flemish bond. Recently altered and extended. External dimensions of building as at pit closure.
6722	MBL3155	SP 0430 9295	Post-Medieval / Modern	Hamstead Colliery.
9647	MBL3252	SP 0420 9318	Post-Medieval	Hamstead Farmhouse. Rectangular farmhouse to north, three sides of a court facing to the south and north of Hamstead House.



Legend

- Study Area
- Listed Buildings
- Locally Listed Buildings
- Recorded Heritage Sites

0 50 100 200 300 400 500
Metres

PMC Created:	KRH Checked:	August 2012 Date:	V1 Version:
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Arndale Court
Headingley
Leeds
LS6 2UJ

TEL: +44 (0)113 2787111
FAX: +44 (0)113 2750623
e-mail: enviro@wyg.com

wyg.

Sheet Size: **A3** Scale of Original: **1:10,000**

Client: **Sainsbury's Supermarkets Ltd**

Project: **Foodstore Development, Hamstead Archaeology and Heritage Assessment**

Title: **Recorded Heritage Sites**

Office: 4154	Project No: A074777	Figure No: 2
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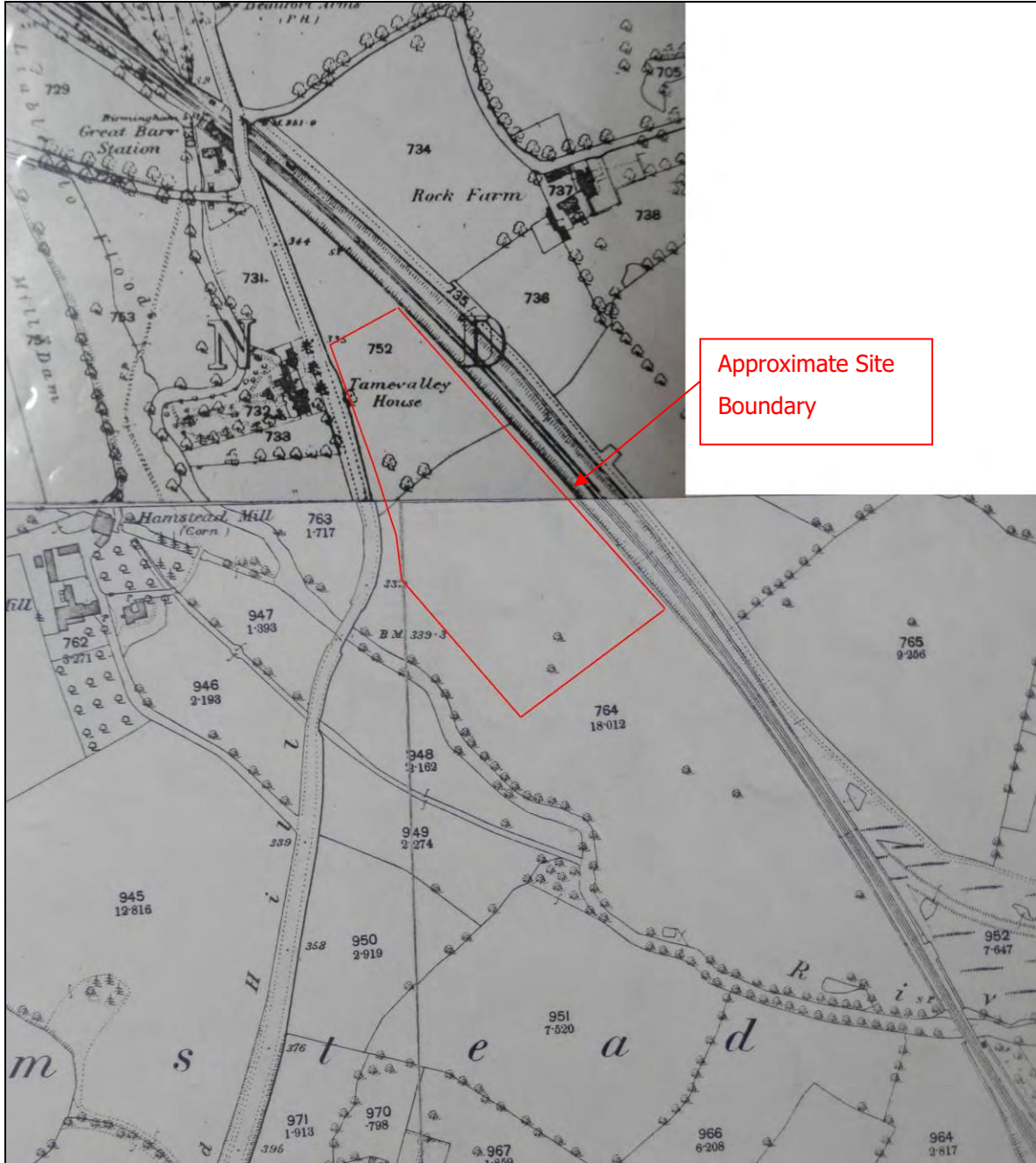
Appendix F – Historic Mapping



Survey of Estates in the Township of Perry Barr, 1795

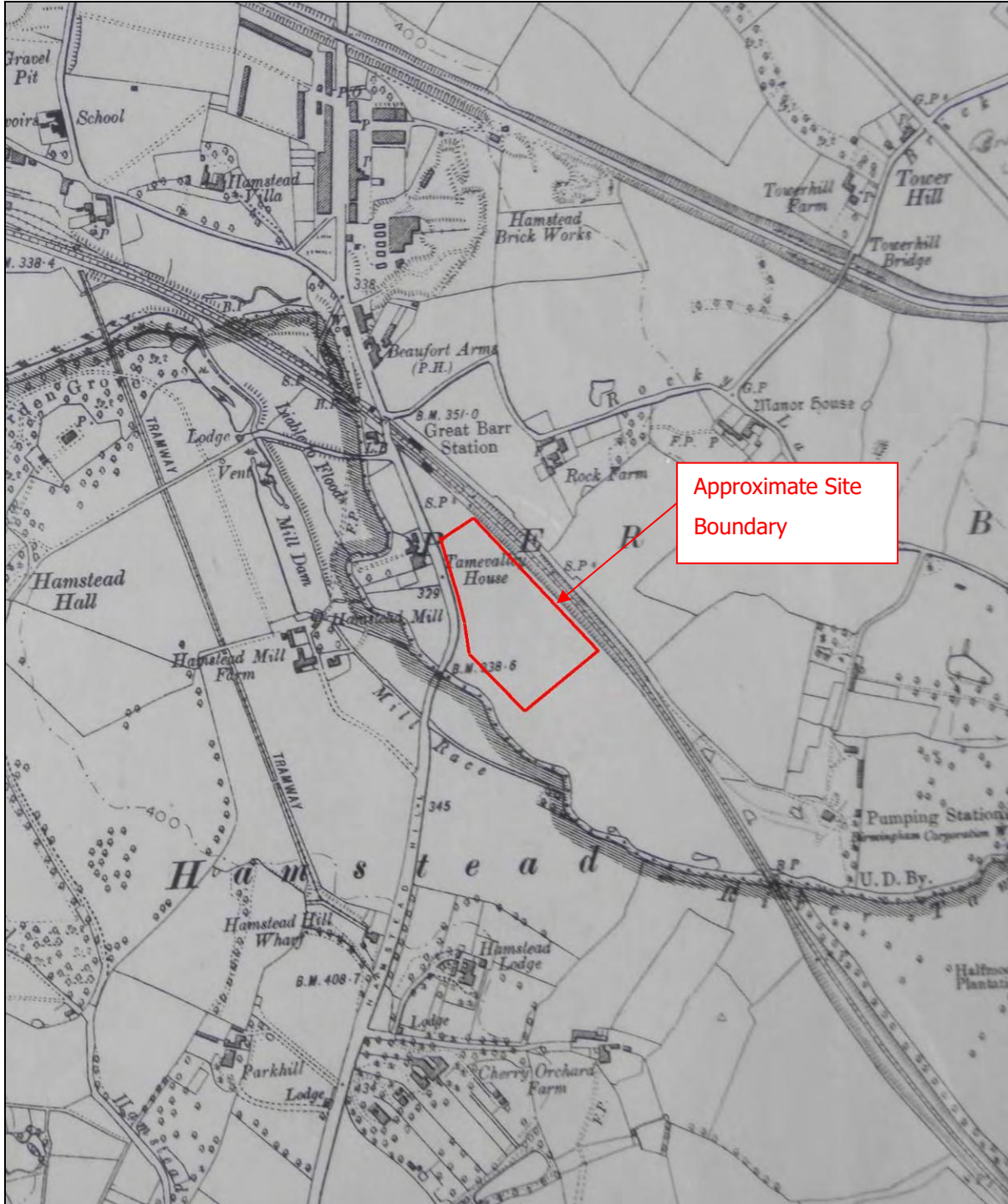


Perry Bar Township Tithe Map, 1840



Ordnance Survey First Edition Map, 1890

(not to scale)



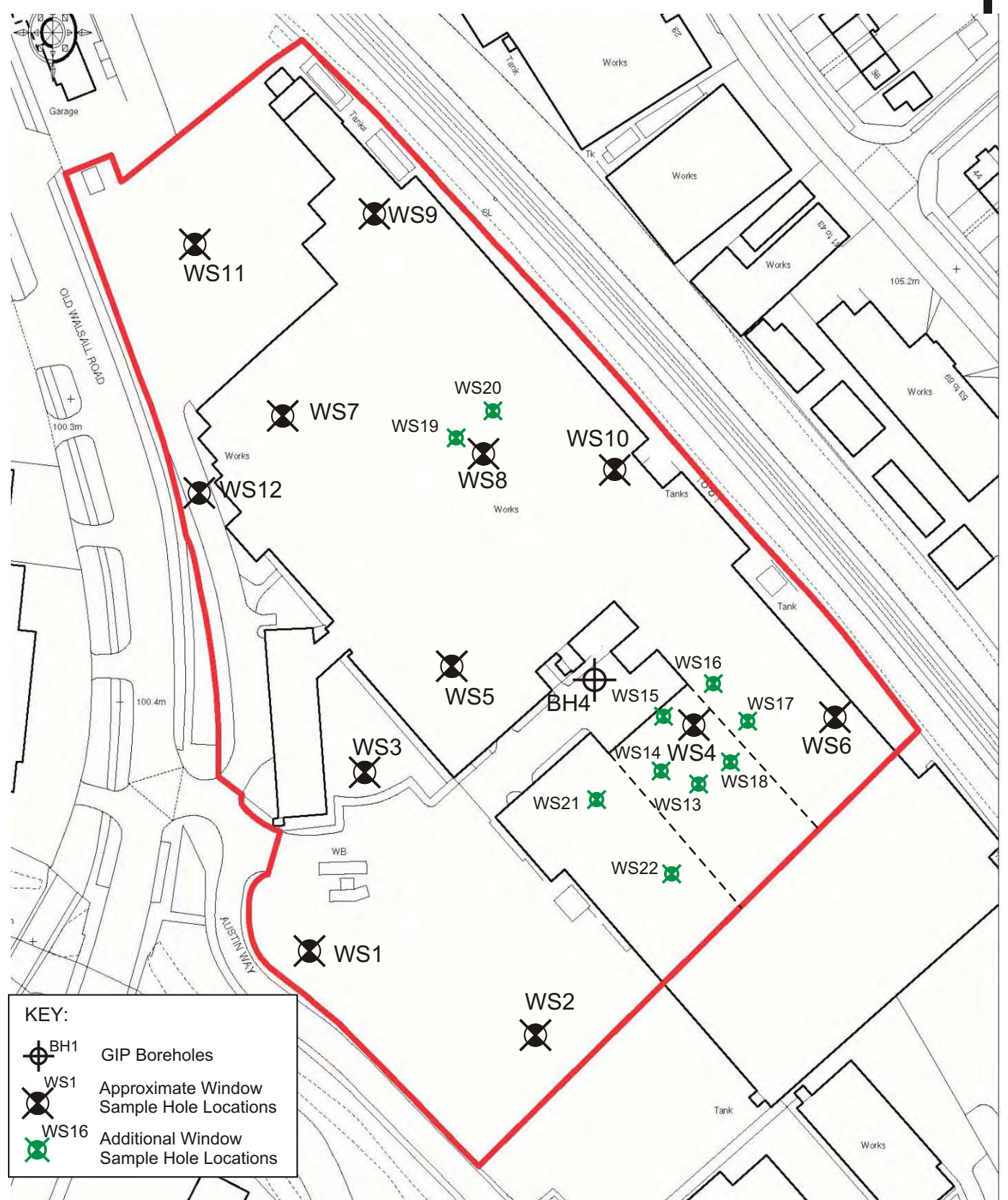
Ordnance Survey Second Edition Map, 1904

(not to scale)



Appendix G – Site Investigation Locations & Logs

Taken from Pam Brown Associates (January 2012) Phase I Desk Study And Phase II Environmental Investigation. Old Walsall Road Hamstead, Birmingham, B42 1DU



KEY:	
	BH1 GIP Boreholes
	WS1 Approximate Window Sample Hole Locations
	WS16 Additional Window Sample Hole Locations

Pam Brown Associates Environmental Consultants Needwood House, Lancaster Park Newborough Road, Needwood Burton on Trent, DE13 9PD Tel: 01283 575733 Fax: 01283 575711 e-mail: enquiries@pambrownassociates.co.uk	Project: Old Walsall Road Hamstead, Birmingham	Scale: NTS
	Title: Window Sample Hole Locations - Additional Holes	Job No.: 1210-11
		Figure 5



Job No. : 1210-11 Client: SSL
 Site Name : OLD WALSALL ROAD
 Site Location: Former GKN Factory, Old Walsall Road, Birmingham

Easting		Start date	06/09/2011
Northing		Engineer	RB
Ground level		Backfill date	06/09/2011
Final depth	5.00	Page	1 of 1

Samples & Testing				Strata					
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
							(0.17)		Reinforced Concrete (MADE GROUND)
							0.17		
							(0.18)		Brown very gravelly clay. Gravel is angular fine to coarse of burnt shale, brick and quartz. (MADE GROUND).
							0.35		
							(0.30)		Brown sandy gravelly clay. Gravel is angular and subangular fine to coarse of quartz, brick, ash and clinker. With occasional cobble of brick. (MADE GROUND).
							0.65		
1.30	1.70	D	3 2 1 2 N = 8				(1.25)		
									Black slightly clayey gravelly sand. Gravel is angular to rounded fine to coarse of quartz, ash, clinker, brick, burnt shale, slate, wood and concrete. (MADE GROUND).
1.90	2.50	D	0 0 0 1 N = 1		▼		1.90		
							(0.80)		Brown and grey very sandy gravelly clay. Gravel is angular to subrounded fine to coarse of quartz, brick, ash, concrete and occasional fragments of timber. Becoming clayey gravelly sand with depth. Wet at 2.3m bgl. (MADE GROUND).
							2.70		
							(1.10)		Grey-brown sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse of quartz, brick and ash. Occasional decayed organic matter and rare timber fragments. (MADE GROUND).
							3.80		
							(1.20)		Dense yellow-brown and red-brown slightly clayey sandy GRAVEL. Gravel is angular to subrounded fine to coarse of quartz and sandstone. (NATURAL SUPERFICIAL DEPOSITS).
							5.00		
			31 19 N = 50 for 30mm						End of Borehole

General remarks

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL
Site Name : OLD WALSALL ROAD
Site Location: Former GKN Factory, Old Walsall Road, Birmingham

Easting		Start date	06/09/2011
Northing		Engineer	RB
Ground level		Backfill date	06/09/2011
Final depth	5.00	Page	1 of 1

Samples & Testing				Strata					
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.80	1.00	D	1 0 0 0 N = 1				(0.45) 0.45 (0.30) 0.75		Reinforced Concrete. (MADE GROUND). Brown clayey gravelly sand. Gravel is angular to subrounded fine to coarse of quartz, brick, concrete and clinker. (MADE GROUND). Black gravelly sand to sandy gravel. Gravel is angular fine and medium of clinker, ash, coal, glass, pottery, quartz and brick. Rare cobble of slag. Wet below 1.m bgl. (MADE GROUND).
2.60	2.90	D	0 0 0 0 N = 0		▼		1.90 (0.60) 2.50 (0.40) 2.90		Orange-brown very clayey gravelly sand. Gravel is angular to subrounded of quartz. Damp. (MADE GROUND). Black sandy gravel. Gravel is angular fine to coarse of clinker, ash, quartz, and shale, with rare metal fragments. Wet. (MADE GROUND).
4.80	4.95	D	0 0 0 1 N = 1				(0.50) 3.40 (0.30) 3.70		Very soft dark grey/black sandy CLAY. (NATURAL SUPERFICIAL DEPOSITS). Very soft dark brown sandy clay with much decayed fibrous organic matter 'peat'. (NATURAL SUPERFICIAL DEPOSITS).
			4 9 9 10 N = 32				(1.10)		Dense orange-brown fine to coarse SAND. (NATURAL SUPERFICIAL DEPOSITS).
			20 17 13 N = 50 for 20mm				4.80 (0.15) 4.95 (0.05) 5.00		Dense orange-brown sandy GRAVEL. Gravel is angular to rounded fine to coarse of quartz (wet). (NATURAL SUPERFICIAL DEPOSITS). Hard red-brown slightly sandy CLAY. (NATURAL DEPOSITS).
									End of Borehole

General remarks

Refusal @ 5.0m bgl

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL
Site Name : OLD WALSALL ROAD
Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	06/09/2011
Northing		Engineer	RB
Ground level		Backfill date	06/09/2011
Final depth	6.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.50	0.70	D	2 2 1 1 N = 6				(0.20) 0.20		Grass over, brown slightly clayey gravelly sand. Gravel is angular to rounded fine to coarse of quartz, brick and ash. With numerous roots and rootlets. (TOPSOIL).
							(1.55)		Brown and dark brown slightly clayey gravelly sand. Gravel is angular to rounded fine to coarse of quartz, concrete, brick, ash, clinker and rare wood fragments. With occasional pockets of sandy gravelly clay. (MADE GROUND).
1.80	2.00	D	0 0 0 0 N = 0		▼		1.75 (0.45)		Dark grey and black gravelly fine to coarse sand. Gravel is subangular medium and coarse of clinker. Damp. (MADE GROUND).
							2.20 (0.60)		Very soft brown and dark grey very sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse of brick, quartz and ash. With rare rootlets. Rare fragments of decayed rope and paper. (MADE GROUND).
2.80	3.00	D	0 0 1 1 N = 2				2.80 (1.00)		Soft brown/grey sandy slightly gravelly clay with occasional decayed organic matter. Gravel is subangular fine and medium pf quartz and possible brick. Becoming very soft very sandy clay below 3.0m. (POSSIBLE MADE GROUND).
							3.80 (1.00)		Dense orange-brown SAND and GRAVEL. Sand is fine to coarse. Gravel is subangular to rounded fine to coarse of quartz, with occasional black staining. (NATURAL SUPERFICIAL DEPOSITS).
							4.80 (1.20)		Very stiff to hard red-brown slightly gravelly CLAY. Gravel is angular medium and coarse of mudstone. Damp. (NATURAL DEPOSITS).
							6.00		End of Borehole

General remarks

Refusal @ 6.0m bgl. Located adjacent to former ornamental pond in landscaping.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : OLD WALSALL ROAD

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	07/09/2011
Northing		Engineer	RB
Ground level		Backfill date	07/09/2011
Final depth	3.00	Page	1 of 1

Samples & Testing				Strata					
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.51	0.60	D	4 5 5 5 N = 19				(0.51)		Reinforced Concrete. (MADE GROUND).
0.70	1.00	D							(0.51) (0.09) 0.60
1.65	2.00	D	3 4 6 6 N = 19			(2.40)		Medium dense red-brown fine to coarse SAND. Slightly clayey between 0.7 to 1.0m bgl. Below 1.6m occasional pocket of red-brown CLAY. (NATURAL DEPOSITS).	
			50 for 70mm			-3.00			End of Borehole

General remarks

Refusal at 3.0m bgl

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : OLD WALSALL ROAD

Site Location: Former GKN Factory, Old Walsall Road, Birmingham

Easting		Start date	07/09/2011
Northing		Engineer	RB
Ground level		Backfill date	07/09/2011
Final depth	5.00	Page	1 of 1

Samples & Testing				Strata					
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.22	0.32	D					(0.22)		Reinforced Concrete. (MADE GROUND).
0.40	0.70	D					0.22 (0.10) 0.32 (0.48)		Black sandy gravel of ash and clinker. (MADE GROUND).
			5 5 5 5 N = 20				0.80 (0.20) 1.00		Brown very sandy gravelly clay. Gravel is subangular to subrounded fine to coarse of quartz and mudstone. (MADE GROUND).
							(1.20)		Red-brown gravelly fine and medium sand. Gravel is angular fine to coarse of weak micaceous mudstone. (MADE GROUND).
			2 1 1 1 N = 5				2.20		Red-brown slightly gravelly sand. Gravel is angular medium and coarse of very weak sandstone. (MADE GROUND).
							(0.55) 2.75		Soft dark grey sandy slightly gravelly clay with much decayed organic matter. Gravel is subrounded medium and coarse of quartz. (POSSIBLE MADE GROUND).
			2 4 4 4 N = 14				(1.20)		Firm red-brown very sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse of quartz. (NATURAL DEPOSITS).
					▼		3.95		Medium dense red-brown fine to coarse SAND. (NATURAL DEPOSITS).
			3 3 3 5 N = 14				(0.75) 4.70 (0.30) 5.00		Stiff red-brown gravelly CLAY. Gravel is angular fine of mudstone. (NATURAL DEPOSITS).
			5 5 7 10 N = 27						End of Borehole

General remarks

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 **Client:** SSL
Site Name : OLD WALSALL ROAD
Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	07/09/2011
Northing		Engineer	RB
Ground level		Backfill date	07/09/2011
Final depth	1.60	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.60	0.80	D					(0.20)		Reinforced Concrete. (MADE GROUND).
							0.20		Light brown slightly clayey sandy gravel. Gravel is angular to subangular fine to coarse of basalt. (MADE GROUND).
							(0.40)		
							0.60		Red-brown clayey sandy gravel. Gravel is angular to subrounded fine to coarse of quartz, ash, brick and concrete. (MADE GROUND).
							(0.20)		
1.20	1.40	D	7 5 5 7 N = 24				0.80		Cobble of concrete. (MADE GROUND).
							(0.10)		
							0.90		Firm to stiff red-brown slightly sandy CLAY. (NATURAL DEPOSITS).
							(0.50)		
			28 22 N = 50				1.40		Red-brown slightly clayey fine and medium SAND becoming very thinly bedded very weak sandstone. (NATURAL DEPOSITS).
							(0.20)		
							1.60		End of Borehole

General remarks














Refusal at 1.6m bgl onto very weak sandstone.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 **Client:** SSL
Site Name : OLD WALSALL ROAD
Site Location: Former GKN Factory, Old Walsall Road, Birmingham

Easting		Start date	06/09/2011
Northing		Engineer	RB
Ground level		Backfill date	07/09/2011
Final depth	4.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.70	1.00	D	3 5 5 6 N = 19				(0.20) 0.20 (0.05) 0.25 (0.25) 0.50 (0.15) 0.65 (0.05) 0.70 (0.30) 1.00 (0.30) 1.30 (0.30) 1.60 (0.20) 1.80 (0.60) 2.40 (0.50) 2.90 (0.70) 3.60 (0.40) 4.00	 Reinforced Concrete. Green colouring to top 1cm. (MADE GROUND).  Asphalt. (MADE GROUND).  Grey sandy gravel. Gravel is angular fine to coarse. (MADE GROUND).  Black very sandy angular fine to coarse gravel of ash and clinker. (MADE GROUND).  Cobble of brick. (MADE GROUND).  Brown slightly clayey gravelly sand. Gravel is angular to subrounded fine to coarse of ash, quartz, brick, concrete and slate. (MADE GROUND).  Light brown gravelly sand. Gravel is angular to subrounded fine to coarse of quartz. Occasional pocket of sandy clay. (MADE GROUND).  Red slightly gravelly fine to coarse sand. Gravel is angular fine to coarse of sandstone. (MADE GROUND).  Brown slightly clayey slightly gravelly sand. Gravel is subangular to subrounded of quartz. (MADE GROUND).  Firm red-brown friable sandy slightly gravelly CLAY. Gravel is subangular medium and coarse of quartz. Occasional black decayed organic matter. (NATURAL DEPOSITS).  Red-brown slightly gravelly fine and medium SAND. Gravel is angular medium and coarse of very weak sandstone. becoming very thinly bedded very weak sandstone below 2.8m. (NATURAL DEPOSITS).  Stiff red-brown slightly sandy CLAY. (NATURAL DEPOSITS).  Dense to very dense red-brown slightly gravelly SAND. Gravel is angular medium and coarse of very weak sandstone. (NATURAL DEPOSITS).	
1.80	2.00	D	1 2 3 3 N = 9						
			4 4 5 6 N = 19						
			50 for 60mm						

End of Borehole

General remarks

Refusal @ 4.0m bgl onto very weak sandstone.

Excavation Method Competitor 130 Window Sampler Rig

Checked By



Job No. : 1210-11 Client: SSL

Site Name : OLD WALSALL ROAD

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	07/09/2011
Northing		Engineer	RB
Ground level		Backfill date	07/09/2011
Final depth	1.50	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
1.40	1.50	D	1010 N=2 50 for 0mm				(0.15) 0.15 (1.35) 1.50	<div style="background-color: #cccccc; border: 1px solid black; width: 100%; height: 100%;"></div> Reinforced Concrete. (MADE GROUND). Light brown sandy gravel. Gravel is angular fine to coarse of quartz, concrete and brick. Occasional cobble of concrete. At 1.4-1.5m bgl cobble of concrete stained black with oily residue, and a fragment of oil stained rag. (MADE GROUND).	
									End of Borehole

General remarks

Refusal at 1.5m onto concrete, oily deposit noted.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : OLD WALSALL ROAD

Site Location: Former GKN Factory, Old Walsall Road, Birmingham

Easting		Start date	06/09/2011
Northing		Engineer	RB
Ground level		Backfill date	06/09/2011
Final depth	1.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
			37 13 N = 50 for 25mm				(0.26) 0.26 (0.14) 0.40 (0.40) 0.80 (0.20) 1.00	 Reinforced Concrete. (MADE GROUND).  Red angular fine to coarse gravel of brick. (MADE GROUND).  Dark brown very sandy angular to subrounded fine to coarse gravel of ash, concrete, clinker, quartz and brick. Rare cobble of concrete. (MADE GROUND).  Light brown very sandy gravel. Gravel is angular to rounded fine to coarse of quartz. (MADE GROUND).	
End of Borehole									

General remarks

Refusal at 1.0m , possible concrete.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : OLD WALSALL ROAD

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	07/09/2011
Northing		Engineer	RB
Ground level		Backfill date	07/09/2011
Final depth	2.10	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.40	0.60	D	6 6 6 7 N = 25		▼				Reinforced Concrete. (MADE GROUND).
0.80	1.00	D							27 23 N = 50 for 65mm
			50 for 65mm						End of Borehole

General remarks

Refusal at 2.1m on SPT.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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





Job No. : 1210-11 Client: SSL

Site Name : OLD WALSALL ROAD

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	06/09/2011
Northing		Engineer	RB
Ground level		Backfill date	06/09/2011
Final depth	2.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.50	0.60	D	3 3 3 4 N = 13				(0.27) 0.27 (0.15) 0.42 (0.05) 0.47 (0.33) 0.80 (0.65) 1.45 (0.55) 2.00	 Reinforced Concrete. (MADE GROUND).  Black sandy gravel of angular fine to coarse ash and clinker. (MADE GROUND).  Brown slightly clayey fine to coarse sand. (MADE GROUND).  Red-brown with black mottling slightly clayey slightly gravelly CLAY. Gravel is angular fine of mudstone and quartz. Occasional relic rootlets. (NATURAL DEPOSITS).  Firm red-brown very sandy CLAY to very clayey SAND. (NATURAL DEPOSITS).  Very dense red-brown fine to coarse SAND very thinly bedded. (NATURAL DEPOSITS).	
			43 7 N = 50 for 10mm					End of Borehole	

General remarks

Refusal @ 2.0m into very weak sandstone

Excavation Method	Competitor 130 Window Sampler	Checked By	
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Job No. : 1210-11 Client: SSL
Site Name : OLD WALSALL ROAD
Site Location: Former GKN Factory, Old Walsall Road, Birmingham

Easting		Start date	06/09/2011
Northing		Engineer	RB
Ground level		Backfill date	06/09/2011
Final depth	5.00	Page	1 of 1

Samples & Testing				Strata					
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.60	0.80	D	3 3 3 3 N = 12				(0.05) 0.05 (0.10) 0.15 (0.10) 0.25 (0.75) 1.00		Asphalt (MADE GROUND). Concrete. (MADE GROUND). Dark brown clayey gravelly sand. Gravel is angular fine to coarse of brick, ash, quartz and rare rubber. (MADE GROUND). Red-brown very sandy gravelly clay. Gravel is angular to subrounded fine to coarse of shale. quartz, brick, concrete and ash. Rare cobble of brick. (MADE GROUND).
2.50	2.70	D	0 0 0 0 N = 0		▼		(0.95) 1.95 (0.95) 2.90 (0.60) 3.50		Orange-brown slightly clayey gravelly sand. Gravel is angular to subrounded fine to coarse of quartz and brick. With rare coal and ash. At 1.85-1.95m bgl cobble of limestone. (MADE GROUND). Very soft to soft brown/grey with black mottling very sandy slightly gravelly clay. Gravel is angular fine of quartz and possible brick, Occasional fine relic rootlets. Between 2.0-2.1m bgl much decayed organic matter. Wet. (POSSIBLE MADE GROUND). Firm red-brown very sandy slightly gravelly CLAY. Gravel is subrounded medium of quartz. (NATURAL DEPOSITS).
			2 5 4 4 N = 15				(1.50) 5.00		Firm to stiff red-brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of very weak sandstone. With occasional lense of fine and medium SAND. (NATURAL DEPOSITS).
			3 4 4 6 N = 17						
			4 4 5 6 N = 19						End of Borehole

General remarks

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 **Client:** SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	3.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
							(0.47)		Reinforced concrete. (Made Ground)
0.65	0.75	D					0.47 (0.08) 0.55 (0.08) 0.63 (0.12)		Light brown sandy gravel. Gravel is fine to coarse angular to subrounded of quartz. (Made Ground).
1.50	1.70	D					0.75 (0.15) 0.90 (0.30) 1.20 (0.50) 1.70 (0.50) 2.20 (0.65)		Brown slightly clayey sandy gravel. Gravel is fine to coarse angular to subangular of brick, concrete, slate and quartz. (Made Ground).
							2.85 3.00		Brown and orange-brown very sandy gravelly clay. Gravel fine to coarse angular of brick, concrete and quartz. (Made Ground).
									Brown very sandy slightly gravelly clay. Gravel is medium subrounded of quartz. With occasional black decayed organic matter. (Possible Natural).
									Light brown slightly clayey slightly gravelly fine to coarse SAND. With occasional black staining.
									Light brown and orange brown slightly gravelly fine to coarse SAND. Gravel is fine and medium angular of very weak sandstone. Rare pocket of very sandy clay.
									Light brown and orange brown very sandy CLAY with occasional fine to coarse sand lenses.
									Orange-brown fine to coarse SAND. Damp.
End of Borehole									

General remarks

Refusal @ 3.0m. No visual or olfactory evidence of hydrocarbon contamination.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	3.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.50	0.85	D				(0.45)		Reinforced concrete (Made Ground).	
						0.45 (0.05)		Black clayey sandy gravel. Gravel is fine and medium angular of ash, clinker and quartz. (Made Ground).	
						0.50 (0.35)		Brown clayey sandy gravel. Gravel is fine to coarse angular to subangular of brick, concrete, quartz and clinker. (Made Ground).	
1.50	1.80	D				0.85 (0.25)		Brown and light brown with black mottling very sandy slightly gravelly clay. Gravel is medium subrounded of quartz. With black decayed organic matter. (Possible Natural).	
						1.10 (0.75)			
						1.85		Light brown and red-brown clayey to very clayey slightly gravelly fine to coarse SAND. Gravel is fine and medium subrounded quartz. With occasional pocket of clay.	
						(1.15)			
						3.00		Red-brown with pale-green mottling slightly gravelly CLAY. Gravel is fine angular of mudstone.	
								End of Borehole	

General remarks

Refusal at 3.0m. No visual or olfactory evidence of hydrocarbon contamination.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	3.00	Page	1 of 1

Samples & Testing			Strata						
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.30	1.00	D				(0.30) 0.30		Reinforced concrete. (Made Ground).	
						(0.70) 1.00		Brown very sandy gravelly clay. Gravel is fine to coarse angular of quartz, brick, clinker and occasional cobble of brick. (Made Ground).	
1.50	1.70	D				(2.00) 3.00		Orange-brown and red-brown slightly gravelly fine to coarse SAND. Gravel is medium angular very weak sandstone. Below 2.0m occasional pockets of sandy clay. Becoming thickly bedded below 2.9m.	
								End of Borehole	

General remarks

Refusal @ 3.0m

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL
 Site Name : Old Walsall Road
 Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	5.30	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.85	1.00	D					(0.26) 0.26 (0.19) 0.45 (0.10) 0.55 (0.95)		Reinforced concrete. (Made Ground). Red-brown slightly clayey slightly gravelly fine to coarse sand. (Made Ground). Brown clayey sandy gravel. Gravel is fine to coarse angular to subrounded of quartz, clinker, brick and timber. (Made Ground).
1.75	1.85	D			▼		1.50 (0.40) 1.90 (0.10) 2.00 (1.00)		Red-brown with occasional black mottling sandy slightly gravelly CLAY. Gravel is fine to coarse angular to subrounded of mudstone and quartz. With occasional coarse sand partings. Becoming very sandy below 0.9m. (Probable Natural). Red-brown gravelly fine to coarse SAND. Gravel is fine to coarse angular of very weak sandstone. Red-brown slightly sandy CLAY. With occasional decayed rootlets.
							3.00 (2.30)		Red-brown slightly gravelly CLAY. Gravel is fine and medium angular of mudstone. Red-brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is medium and coarse angular to subrounded of very weak sandstone and quartz. (Wet).
							5.30		End of Borehole

General remarks

Refusal @ 5.3m

Excavation Method	Competitor 130 Window Sampler Rig.	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	2.30	Page	1 of 1

Samples & Testing			Strata						
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.20	0.70	D					(0.20)		Reinforced concrete. (Made Ground).
							0.20 (0.50)		Brown slightly clayey sandy gravel. Gravel is fine to coarse angular of basalt. (Made Ground).
0.80	1.00	D					0.70 (1.30)		Red-brown and brown slightly clayey fine to coarse SAND. With occasional pocket of very sandy clay.
					▼		2.00 (0.30)		Red-brown and brown fine to coarse SAND. Damp.
							2.30		End of Borehole

General remarks

Refusal @ 2.3m

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	3.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.70	0.90	D					(0.40) 0.40 (0.10) 0.50		Reinforced concrete. (Made Ground).
							(2.35)		Brown sandy gravel. Gravel is fine to coarse angular to subrounded of quartz, clinker and brick. (Made Ground). Red-brown and brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is medium and coarse angular of very weak sandstone. With rare pocket of clay. Damp.
2.50	2.80	D					2.85 (0.15) 3.00		Red-brown very weak SANDSTONE.
									End of Borehole

General remarks

Refusal @ 3.0m

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	0.08	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
							(0.08) 0.08	XXXXXX	Reinforce concrete. (Made Ground). Refusal beneath concrete. End of Borehole

General remarks

Refusal @ 0.08m below concrete.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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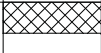


Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	0.20	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
							(0.20) 0.20		Reinforced concrete. (Made Ground). Refusal beneath concrete. End of Borehole

General remarks

Refusal @ 0.2m below concrete slab.

Excavation Method	Competitor 130 Window Sampler Rig.	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	3.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.80	1.10	D	2, 2 / 2,2,3,3 n = 10				(0.75)		Reinforced concrete. (Made Ground).
1.30	1.50	D					(0.45)		Black clayey sandy gravel. Gravel is fine to coarse angular of brick, glass, textile, clinker, cement/lime, and concrete. (Made Ground).
			1,1 / 1,4,3,5 n = 13				(0.40)		Grey-brown with occasional black mottling very sandy slightly gravelly clay. Gravel is medium and coarse subrounded of quartz. Occasional decayed organic matter. (Possible Natural).
							(0.90)		Red-brown very sandy CLAY. With occasional fine to coarse sand lenses.
			10,12/ n = 8,42 for 75mm				(0.45)		Red-brown fine to coarse SAND with occasional sandstone lithorelics.
							2.95 (0.05)		Red-brown very weak SANDSTONE.
							3.00		End of Borehole

General remarks

Refusal @ 3.0m.

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Job No. : 1210-11 Client: SSL

Site Name : Old Walsall Road

Site Location: Former GKN Factory, Old Walsall Road, Birmingham.

Easting		Start date	13/12/2011
Northing		Engineer	RB
Ground level		Backfill date	13/12/2011
Final depth	3.00	Page	1 of 1

Samples & Testing					Strata				
Depths		Type	SPT	Installation	Water	Level (AOD)	Depth (bgl) (Thickness)	Legend	Strata Descriptions
From	To								
0.70	1.00	D	1,1/ 1,1,1,1 n = 4				(0.15) 0.15 (0.15) 0.30 (0.70)	Reinforced concrete. (Made Ground). Red-brown sandy gravel of brick and quartz. (Made Ground).	
1.60	1.90	D	1,2/ 2,2,1,2 n = 7				(0.50) 1.50 (1.50)	Red-brown and brown with black mottling slightly sandy slightly gravelly clay. Gravel is medium and coarse angular of sandstone. With occasional organic matter. (Possible Made Ground). Grey brown very sandy slightly gravelly clay. Gravel is medium and coarse subrounded of quartz. With occasional black organic matter. Wet. (Probable Natural). Red-brown mottled light brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is medium angular of very weak sandstone. With occasional pocket of clay. Becoming denser with depth. Damp.	
			13,12 for 65mm/ n = 50 for 70mm				-3.00	End of Borehole	

General remarks

Refusal @ 3.0m

Excavation Method	Competitor 130 Window Sampler Rig	Checked By	
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Appendix H – Report Conditions



Archaeology and Heritage Desk-Based Assessment, Foodstore Development, Hamstead

This report is produced solely for the benefit of **Sainsbury's Supermarkets Ltd** and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYG. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.

November 2008

WYG Environment Planning Transport Ltd