PHASE 1 GROUND CONDITION SURVEY

Residential Apartments
Clegg Street
Liverpool
L5 3LD

September 2017

Report Ref: 10/1085/001

Prepared on Behalf of:

Caro Developments

By:

Clancy Consulting Limited
Dunham Court
2 Dunham Road
Altrincham
Cheshire
WA14 4NX

t: +44 (0)161 613 6000
e: enquiries@clancy.co.uk
www.clancy.co.uk

PHASE 1 GROUND CONDITION SURVEY REPORT
PROPOSED RESIDENTIAL APARTMENTS, CLEGG STREET, LIVERPOOL

Report Reference: 10/1085/001

Date: September 2017

Prepared for: Caro Developments
33 Netherfield Road North
Liverpool
L5 3TA

Prepared by: Clancy Consulting
Dunham Court
2 Dunham Road
Altrincham
Cheshire
WA14 4NX

Written by: **Andrea Chaverra Valencia**
Geo-Environmental Engineer

Approved by: **Nick Riding**
Associate

EXECUTIVE SUMMARY

Client	Caro Developments
Location	Clegg Street, Liverpool, L5 3SP OS Grid Reference 335138, 391727
Description	The site covers an area of approximately 0.24 hectares and is currently occupied in the west by garages / small industrial units with Clegg Street in the east.
Development	The site is being considered for development with high rise residential apartments.
Site History	The historical OS maps dating back to 1851 indicate the site was occupied by a chapel, residential dwellings and Clegg Street until around 1958 when the northern part of the site was demolished following suspected bombing during WWII. Between 1973 and 1975 the site was redeveloped with what appears to be small industrial units which have subsequently been used as garages, auto repairs and a joiner business. The surrounding area has been occupied by a mixed residential, recreational and commercial / industrial land with timber yards, warehouses, engineering works, garages, tramways, a brewery and mineral works all located within proximity of the site.
Geology	Geological maps indicate that the site is not underlain by superficial deposits with solid strata potentially present directly beneath the Made Ground. The solid strata comprise sandstone of the Helsby Sandstone Formation. Areas of Made Ground are indicated immediately to the north and east with Worked Ground approximately 40m to the west. Historical BGS borehole records located in the nearby area have recorded Made Ground up to 2.90m. They also have recorded a mixture of sand and clay varying from soft to stiff and loose to very dense between 1.10m to 4.60m below ground level. Weathered Sandstone was recorded between 2.10m and 4.70m below ground level and no groundwater was recorded.
Mining	According to Coal Authority records the site is not located in an area which could be affected by past underground or opencast mining.
Environmental Setting	The solid strata beneath the site is classified as a Principal Aquifer (highly permeable). The site is not within a Groundwater Source Protection Zone and there are no groundwater abstraction points located within 500m of the site. The nearest surface water feature are three ponds located approximately 300m northeast of the site. There are no pollution incidents recorded to controlled waters within 500m of the site.
Flood Risk	According to Environment Agency records the site is not at risk of flooding from 'Rivers or Sea' and has a 'Limited Potential for Groundwater Flooding to Occur'. The site is at 'Low' (100-year return) risk of flooding from surface water. The site may however be located within a local authority designated critical drainage area and a flood risk assessment may still be required. Confirmation should be sought from the appointed drainage engineer.
Landfilling	There are no Local Authority or BGS recorded historical landfill sites within 500m of the site. Made Ground is however indicated to be located immediately north and east of the site with worked ground approximately 40m west.

Unexploded Ordnance	Due to significant changes to the site and surrounding area before and after World War II and due to the presence of 'ruins' it can be assumed that the area may have been affected by bombing during the war. A UXO risk assessment should be carried out for the site to identify any risks.
Further Works	The Phase 1 Risk Assessment and Preliminary Conceptual Site Model have identified potential contamination sources, pathways and receptors. We would therefore recommend that the following Phase 2 investigations are undertaken as a minimum prior to development: • Carry out Unexploded Ordnance Risk Assessment to see if a risk is present during intrusive works from UXO. • A ground investigation should be carried out to characterise the nature and depth of the Made Ground soils beneath the site. Exploratory holes should provide a good spatial coverage of the site with selected boreholes in the location of proposed new structures. • Soil samples should be recovered and submitted for chemical testing to comprise a minimum of pH, metals, asbestos screening, PAH and TPH. • The ground investigation should allow for excavations / boreholes to be taken through any Made Ground soils and into the underlying natural strata. In-situ testing should be carried out during drilling to provide adequate recommendations for foundation design. Given the high rise nature of the development there may be a requirement for rotary cored boreholes into the bedrock to provide sufficient information for detailed foundation design. • We would recommend the installation of a minimum of three gas monitoring wells in the location of the proposed new structures, with provision for an initial six monitoring visits carried out over a two-month period in accordance with CIRIA Report C665.

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1.0 INTRODUCTION

1.1 Background

Clancy Consulting Limited has been instructed by Caro Developments to carry out a Phase 1 Ground Condition Survey for a site located off Clegg Street in Liverpool. A site location plan is presented in Appendix I.

The site forms an irregular shaped parcel of land located between Clegg Street and Great Homer Street in Liverpool and is being considered for development with high rise residential apartments. Proposed site layout plans provided by Falconer Chester Hall are presented in Appendix I.

1.2 Objectives

The objectives of this investigation are summarised below:

- Provide a review of the sites land use history by reference to ordnance survey maps of the area.
- Assess the environmental setting, geology, hydrology, hydrogeology, mining and subsidence history of the site and surrounding area.
- Develop a detailed 'conceptual site model' with regard to potential contamination sources, pathways and receptors.
- Carry out a review of the risk posed to the site from hazardous ground gases.
- Prepare a Preliminary Risk Assessment and Conceptual Site Model with regard to potential contamination sources, pathways and receptors.
- Provide recommendations regarding the requirement for further investigations, if required, to satisfy the Local Planning Authority.

1.3 Limitations of the Study

Clancy Consulting Limited cannot be held responsible for any omissions, misrepresentation, errors or inaccuracies with the supplied third party report information. The report is written in the context of an agreed scope of work and budget and should not be used in a different context. New information or improved practices and changes in legislation may require a reinterpretation of the report in whole or in part.

Clancy Consulting Limited reserves the right to amend either conclusions or recommendations in light of any further information that may become available. The report is provided for the sole use of Caro Developments for the objectives discussed previously only, and is confidential to them.

The report may not be relied upon by any other party without prior written consent of Clancy Consulting Limited. Those using this information in subsequent assessments or evaluations do so at their own risk.

2.0 DESK STUDY

2.1 Sources of Information

Background information was sought from the following sources:

- Ordnance Survey historical maps (selected copies included in Appendix II).
- British Geological Survey (BGS) Sheets (Appendix III).
- Environment Agency Groundwater Vulnerability Maps (Appendix IV).
- Environmental datasheets (Appendix V).

2.2 Site Setting and Description

The site forms an irregular rectangle shaped parcel of land located between Clegg Street and Great Homer Street in Liverpool at OS Grid Reference 335138, 391727. The site covers an area of approximately 0.24 hectares and is currently occupied by single storey garages and industrial units with Clegg Street itself forming the eastern portion of the site.

The site is located around 850m north of Liverpool city centre and is within a small industrial area (with an office block, a garage and a flooring supplier) surrounded by two schools, green spaces, residential and industrial buildings.

2.3 Site History

To investigate the development history and previous land uses at the site and surrounding area, historical Ordnance Survey (OS) maps were examined. Selected copies of the maps are presented in Appendix II.

The Table below is not intended to provide a comprehensive review of all the changes which have occurred at the site and instead provides a summary of the most salient points relating to the development history of the site. The most significant historical land uses are highlighted in bold text for ease of reference.

Date(s)	Site	Surrounding Land
1851	The site consists of a **Methodist Chapel**, **houses** and **Clegg Street**. The site is within a densely populated area.	The surrounding area is a mix of residential and commercial / industrial land use with, **North Hay Market** and **Stables** immediately to the south and southeast. **Works** are located 70m northwest to 400m southwest. A **Brewery** is located 150m southwest and a **Timber Yard** 180m southeast. There is a **Horse Repository** around 240m southwest of the site. There are **Schools** from 100m northwest to 240m northeast of the site.
1893	No significant changes.	Cazneau Street approximately 200m east of the site indicates there is a **tramway**.
1908	No significant changes.	The 'works' 70m northwest of the site are now a **Play Ground**. A **Music Hall** is located around 60m northeast of the site. **Mineral Works** are located 200m south of the site.
1927	No significant changes.	Areas of **redevelopment** and **demolition** are seen 100m to 250m southeast and 150m to 250m south of the site. The Music Hall is now a **Cinema**. The Mineral works have been **demolished**.

Date(s)	Site	Surrounding Land
1954	No significant changes.	**Ruins** and areas of **demolished buildings** are shown immediately to the southeast, south and north. More ruins are scattered around the wider area. An **industrial** area 200m northwest of the site contains a **warehouse**, **factory** and '**works'**. Cazenau Street no longer has a **tram way**. A **motor body works** is located 360m northeast.
1958 - 1962	The very north of the site is marked as **ruins**.	The immediate areas to the east and southeast appear **undeveloped**. The area 70m north of the site which was demolished is now **built** and one **ruin** remains. The area 130m south of the site has several '**works**' in places which were ruins. Several areas that were demolished or marked as ruins appear to remain **undeveloped**.
1965 - 1976	The northern part of the site has been **demolished** and the building at the south is marked as a **Youth Centre**.	The area immediately to the east and southeast of the site has been **redeveloped** and is marked as '**engineering works**' and '**secondary school'**. A large area around 130m east appears to have been **demolished**. The area across Great Home Street, west of the site has also been **demolished** and a new **road** is being built. Further buildings appear to have been **demolished** approximately 120m southeast of the site.
1973 - 1975	The site has been **redeveloped** with what appear to be **garages** / **small industrial units** on the west side and **Clegg Street** on the east.	The immediate area to the north of the site has been **demolished**. The immediate surrounding area to the south and east of the site are now '**works**'. **Great Home Street** has been **widened** and the surrounding roads have been **realigned**. A large **roundabout** / **subway** is located 40m west of the site. The area 180m east of the site is marked as **recreation ground**. There are two **sub stations**, 200m southeast and 300m northeast. The area 200m southeast of the site has been **redeveloped**. A large **industrial area** is located 130m to the northwest. A **large unspecified building** is located 200m to the southeast.
1986 - 1992	No significant changes.	The **recreation ground** has been **reworked** and **extended** immediately north of the site. The area 250m northeast of the site has been **demolished** and turned into a **field** and the west end is a **sports pitch**. The area 220m north of the site has also been **demolished** and turned into a **recreation ground** with **ponds**.
1993 – 1995	No significant changes.	The area 60m north of the site is now **residential**. The area 160m southeast of the site has been **demolished**.
1996	No significant changes.	The area 160m southeast of the is now **residential**.
2017	No significant changes.	No significant changes.

2.4 Unexploded Ordnance (UXO) Risk Assessment

From a review of the sites development history, there have been changes to the site and surrounding area before and after World War II. Many former buildings are shown as "ruins" or have been demolished both on site and within the surrounding area post 1945. It can therefore be assumed that the site and wider area was subject to bombing during the war and that the risk of unexploded ordnance being present on the site is considered to be moderate to high. As such, we would recommend that an Unexploded Ordnance (UXO) Risk Assessment will be needed for this site.

2.5 Geology

The 1:10,000 British Geological Survey (BGS) map for the area (096 Liverpool) indicates that superficial deposits are absent and that the site is instead likely to be underlain at shallow depth by solid strata comprising sandstone of the Helsby Sandstone Formation. Made Ground is indicated to be located immediately north of the site with worked ground approximately 45m west.

There are several BGS historical borehole records located approximately 90m to 300m northwest, northeast, east and southwest of the site. These have recorded Made Ground to depths up to 2.90m below ground level. They also have recorded loose clayey sand, soft sandy clay, firm/stiff sandy clay, very stiff clay and dense/very dense sand between 1.10m to 4.60m below ground level. Weathered Sandstone was recorded between 2.10m and 4.70m below ground level. No groundwater was recorded.

Copies of the geological plans are attached in Appendix III.

2.6 Soil Geochemistry

According to the BGS National Geoscience Information Service no elevated background concentrations of arsenic, cadmium, chromium or nickel are anticipated in the natural soils beneath the site. Marginally elevated background concentrations of lead may be present at concentrations between 300mg/kg and 600mg/kg.

2.7 Mining & Ground Stability

According to Coal Authority records the site is not located in an area which could be affected by past underground or opencast mining. No BGS recorded opencast mineral site has been identified within 800m of the site.

The potential for collapsible ground stability hazards is very low.

The potential for compressible ground stability hazards is nonexistent within the site and very low north of the site.

The potential for landslide ground stability hazards is very low and running sand ground stability hazards is nonexistent within the site and is very low north of the site.

The potential for shrinking or swelling clays is nonexistent.

2.8 Hydrogeology

According to the Environment Agency Groundwater Vulnerability Map, the solid strata beneath the site is classified as a Principal Aquifer (highly permeable).

The site is not within a Groundwater Source Protection Zone and there are no groundwater abstraction points located within 500m of the site.

2.9 Hydrology

The nearest surface water feature are three ponds located approximately 300m northeast of the site. There are no pollution incidents recorded to controlled waters within 500m of the site.

2.10 Flood Risk

According to Environment Agency records the site is not at risk of flooding from 'Rivers or Sea' and has a 'Limited Potential for Groundwater Flooding to Occur'. The site is at 'Low' (100-year return) risk of flooding from surface water.

The site may however be located within a local authority designated critical drainage area and a flood risk assessment may still be required. Confirmation should be sought from the appointed drainage engineer.

Copies of the hydrological site sensitivity and flood risk maps are included in Appendix IV.

2.11 Radon Risk Potential

The Radon Guidance on protective measures for new dwellings indicates that the site is in a lower probability radon area, as less than 1% of homes are above the action level. Therefore, basic radon gas protective measures are not required.

2.12 Landfill Sites

There are no Local Authority or BGS recorded historical landfill sites within 500m of the site. There are two licenced waste management facilities within 500m of the site. The nearest is located around 120m to the south and was registered to Williams Bro's Scrap Metals Ltd in 1988 for the purpose of metal recycling. The furthest is around 460m southeast of the site and was registered to Mr John Short and Mr John Lee Timmings in 2008 for household, commercial and industrial transfer.

There are two Registered Waste Treatment / Disposal sites located within 500m of the site. The closest licence is 100m to the south east, also registered to Williams Bro's Scrap Metal Ltd and the furthest located 380m to the southeast registered to Lyons bros (metals) Ltd. Both licences were issued in 1988 and authorised to accept scrap metal, vehicles and white goods.

Made Ground is however indicated to be located immediately north and east of the site with worked ground approximately 40m west.

2.13 Industrial Land Uses

The site is located within a small industrial area and was previously registered as car engine tuning & diagnostic services, brake & clutch service centre and joinery manufacturers. These businesses presumably operated out of the small industrial units currently present in the west of the site.

Other nearby land uses are typically light industrial and commercial including garages, auto repairs and dealers, precision engineers, office furniture & equipment, recycling centre, blind, awnings & canopies, chemical distributers, scientific apparatus & instrument manufacturers, printers, metal finishing services, unspecified works and Kingsway Industrial Park.

No Integrated Pollution Prevention and Control or Local Authority Integrated Pollution Prevention and Control permits are recorded within 500m of the site.

Two Local Authority Pollution Prevention and Control Permits are recorded within 500m of the site. The closest is 209m to the southeast registered to Palatine Engraving, dated 2008 associated with the coating of metal and plastic. The license has been revoked. The furthest is 380m to the northwest registered to Texaco (Scotland Road), dated 1998 associated with petrol filling station. The licence appears to still be active.

A comprehensive list of the waste management and industrial sites located within 1km of the site are presented in the Environmental Datasheets in Appendix V.

2.14 Sensitive Land Uses

There are no registered sensitive land uses within 500m of the site.

3.0 PHASE 1 RISK ASSESSMENT

3.1 General

The "suitable for use" approach is adopted for the assessment of contaminated land and remedial measures are only undertaken where unacceptable risk to human health or the environment can be proven when taking into account the proposed use of the site and environmental setting.

A risk assessment process should be carried out to determine potential hazards to human health and the environment and be based on the "source" "pathway" "receptor" principal. For a potential risk to be present there must be a viable pollutant linkage whereby a contamination source may impact upon a receptor. The absence of one or more of these key components (source, pathway or receptor) prohibits a viable pollution linkage being formed.

3.2 Preliminary Conceptual Site Model

In accordance with CLR11 "Model Procedures for the Management of Land Contamination" (2004) and BSI 10175 "Code of Practice for Investigation of Potentially Contaminated Land" (2011), a Preliminary Conceptual Site Model was developed to identify potential contamination sources, migration pathways and receptors within the study area.

The following potential contamination sources have been identified surrounding the site:

- Possible Made Ground associated with historic buildings within the site and subsequent demolition.
- Possible localised contamination from former site uses particularly garages and auto repair businesses.
- Possible deep Made Ground associated with possible basements in former housing and chapel.
- UXO risk from bombing of the site during WWII.
- Migration of possible mobile contaminants from off-site sources including infilled land, garages, works, tramway and mineral works etc.
- Any Made Ground located at the site is also considered a potential source of hazardous ground gas.

Based on the former site uses a broad suite of chemical analyses is recommended during any intrusive investigations, with selected samples tested for pH, metals, PAH, TPH and asbestos as a minimum. Given the amount of filled land in the surrounding area and potential Made Ground

on-site a gas risk assessment will likely be required for the site, though this would be dependent of the actual ground conditions encountered on-site.

Potential pollutant pathways include:

- Dermal contact.
- Inhalation of particulates.
- Migration of leachable contaminants.
- Migration of hazardous ground gases into new structures.
- Acidic ground conditions affecting building infrastructure.

The following contamination receptors have been identified:

- Future site users.
- Construction workers.
- Controlled waters (surface water features and aquifer).
- Buildings and infrastructure.

A preliminary risk assessment can be carried out using guidance outlined in Section 6.3 of CIRIA Document C552 "Contaminated Land Risk Assessment – A Guide to Good Practice" (2001).

For a risk to be present there must be a viable pollutant linkage whereby a contamination source can impact on a receptor via a pathway. To carry out the risk assessment an estimate must be made of the potential severity of the risk and the likelihood of the risk occurring. The following Tables set out the criteria for this principal.

Table 2 - Severity of Risk

Severity	Description
Severe	Acute risk to human health likely to result in 'significant harm' i.e. very high concentrations of contamination or ground gases. Catastrophic damage to building i.e. by explosion from high gassing sites or VOC concentrations. Major pollution of controlled waters i.e. surface watercourses and Principal aquifers, source protection zones. Short term damage to ecosystems.
Medium	Long term risk to human health likely to result in 'significant harm' i.e. elevated concentrations of contaminants or ground gases. Pollution of sensitive controlled watercourses i.e. Principal or Secondary Aquifers. Significant effects on sensitive ecosystems or species.
Mild	Pollution of non-sensitive waters i.e. smaller surface watercourses or unproductive strata. Significant damage to crops, buildings, structures or services i.e. by explosion from sites with medium gassing potential, elevated concentrations of contaminants.
Minor	Non-permanent human health effects i.e. requirement for protective equipment during site works to mitigate health effects. Damage to non-sensitive ecosystems or species. Minor damage to buildings, structures or services.

Table 3 - Probability of Risk Occurring

Probability	Description
High Likelihood	Pollutant linkage may be present that appears very likely in the short term and risk is almost certain to occur in long term or evidence of harm to receptor exists.
Likely	Pollutant linkage may be present and is likely that the risk will occur over the long term.
Low Likelihood	Pollutant linkage may be present and there is a possibility of the risk occurring although no certainty that it will do so.
Unlikely	Pollutant linkage may be present but the circumstances under which harm would occur even in the long term are improbable.

Table 4 - Comparison of Risk & Probability

Probability	Severity			
	Severe	**Medium**	**Mild**	**Minor**
High Likelihood	Very High	High	Moderate	Moderate/Low
Likely	High	Moderate	Moderate/Low	Low
Low Likelihood	Moderate	Moderate/Low	Low	Very Low
Unlikely	Moderate/Low	Low	Very Low	Very Low

A summary of potential pollutant linkages and perceived risks for this site are outlined in the Table below:

Table 5 - Pollutant Linkages & Perceived Risk

Sources of Contamination	Pathways	Receptors	Risk
Possible Made Ground associated with historic land uses and demolition of former buildings within the site. Migration of mobile contaminants from off-site sources including infilled land, garages, works, tramway, mineral works etc. Potential generation of hazardous ground gas from Made Ground on site and in surrounding area.	Inhalation and dermal contact of soil particles during site construction works and by future end users.	Current site users	Very Low
		Future site users	Low
		Construction workers during development	Low / Moderate
	Potential movement of mobile contaminants through underlying strata to the site and controlled waters.	Principal Aquifer (solid strata)	Moderate
	Migration of ground gases into proposed new structures at the site.	Future Site Users	Low
		Construction Workers During Development	Low / Moderate
		Building Infrastructure	Low

The historical OS maps dating back to 1851 indicate the site was occupied by a chapel, residential dwellings and Clegg Street until around 1958 when the northern part of the site was demolished following suspected bombing during WWII. Between 1973 and 1975 the site was redeveloped with what appears to be small industrial units which have subsequently been used as garages, auto repairs and a joiner business.

The surrounding area has been occupied by a mixed residential, recreational and commercial / industrial land with timber yards, warehouses, engineering works, garages, tramways, a brewery and mineral works all located within proximity of the site.

Given the development history of the site and surrounding area, it is possible that some ground contamination may be present beneath the site. Made Ground soils could be present in the areas where former buildings have been present, particularly if basements were present. Any Made Ground should be considered a potential source of contamination and hazardous ground gas.

Geological maps indicate that the site is not underlain by superficial deposits with solid strata potentially present directly beneath the Made Ground. The solid strata comprise sandstone of the Helsby Sandstone Formation. Areas of Made Ground are indicated immediately to the north and east with Worked Ground approximately 40m to the west.

Historical BGS borehole records located in the nearby area have recorded Made Ground up to 2.90m. They also have recorded a mixture of sand and clay varying from soft to stiff and loose to very dense between 1.10m to 4.60m below ground level. Weathered Sandstone was recorded between 2.10m and 4.70m below ground level and no groundwater was recorded.

The solid strata beneath the site is classified as a Principal Aquifer (highly permeable). The site is not within a Groundwater Source Protection Zone and there are no groundwater abstraction points located within 500m of the site. The nearest surface water feature are three ponds located approximately 300m northeast of the site. There are no pollution incidents to controlled waters recorded within 500m of the site.

According to Environment Agency records the site is not at risk of flooding from 'Rivers or Sea' and has a 'Limited Potential for Groundwater Flooding to Occur'. The site is at 'Low' (100-year return) risk of flooding from surface water. The site may however be located within a local authority designated critical drainage area and a flood risk assessment may still be required. Confirmation should be sought from the appointed drainage engineer.

Regarding hazardous ground gas risk, Made Ground deposits are anticipated to be present beneath the site and the surrounding area has been subject to varied development which may have resulted in filled ground. Any filled ground could potentially contain organic materials with the potential to generate hazardous ground gases. The requirement for gas monitoring will however be dependent upon the actual ground conditions encountered on site.

Based on the desk study information the environmental setting of the site is considered to be of 'moderate' risk due to the presence of underlying aquifers. Given the high rise residential nature of the development, the risk to human health can be considered as 'moderate'.

4.0 CONCLUSIONS & RECOMMENDATIONS

The Phase 1 Risk Assessment and Preliminary Conceptual Site Model have identified potential contamination sources, pathways and receptors. We would therefore recommend that the following Phase 2 investigations are undertaken as a minimum prior to development:

- Carry out a detailed UXO Risk Assessment to assess potential risk from unexploded ordnance.

- A ground investigation should be carried out comprising the drilling of boreholes to characterise the nature and depth of the Made Ground soils beneath the site. Exploratory holes should provide a good spatial coverage of the site with selected boreholes in the location of proposed new structures.

- Soil samples should be recovered and submitted for chemical testing to comprise a minimum of pH, metals, asbestos identification, PAH and TPH.

- The ground investigation should allow for excavations / boreholes to be taken through any Made Ground soils and into the underlying natural strata. In-situ testing should be carried out during drilling to provide adequate recommendations for foundation design. Given the high nature of the development there may also be a requirement for rotary cored boreholes into the bedrock to assist with detailed foundation design.

- Depending on the ground conditions there may be a requirement to install gas monitoring wells in the location of the proposed new structures. Any monitoring should comprise a minimum of six monitoring visits carried out over a two-month period in accordance with CIRIA Report C665.

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APPENDIX I

DRAWINGS

Birmingham 0121 200 7800 . Glasgow 0141 222 1720 . Liverpool 0151 227 5300 . London 020 3077 0970 . Manchester 0161 613 6000 . Newcastle 0191 221 0702 . Norwich 01603 305190 . Prestwick 01292 475375 . Reading 0118 941 7888

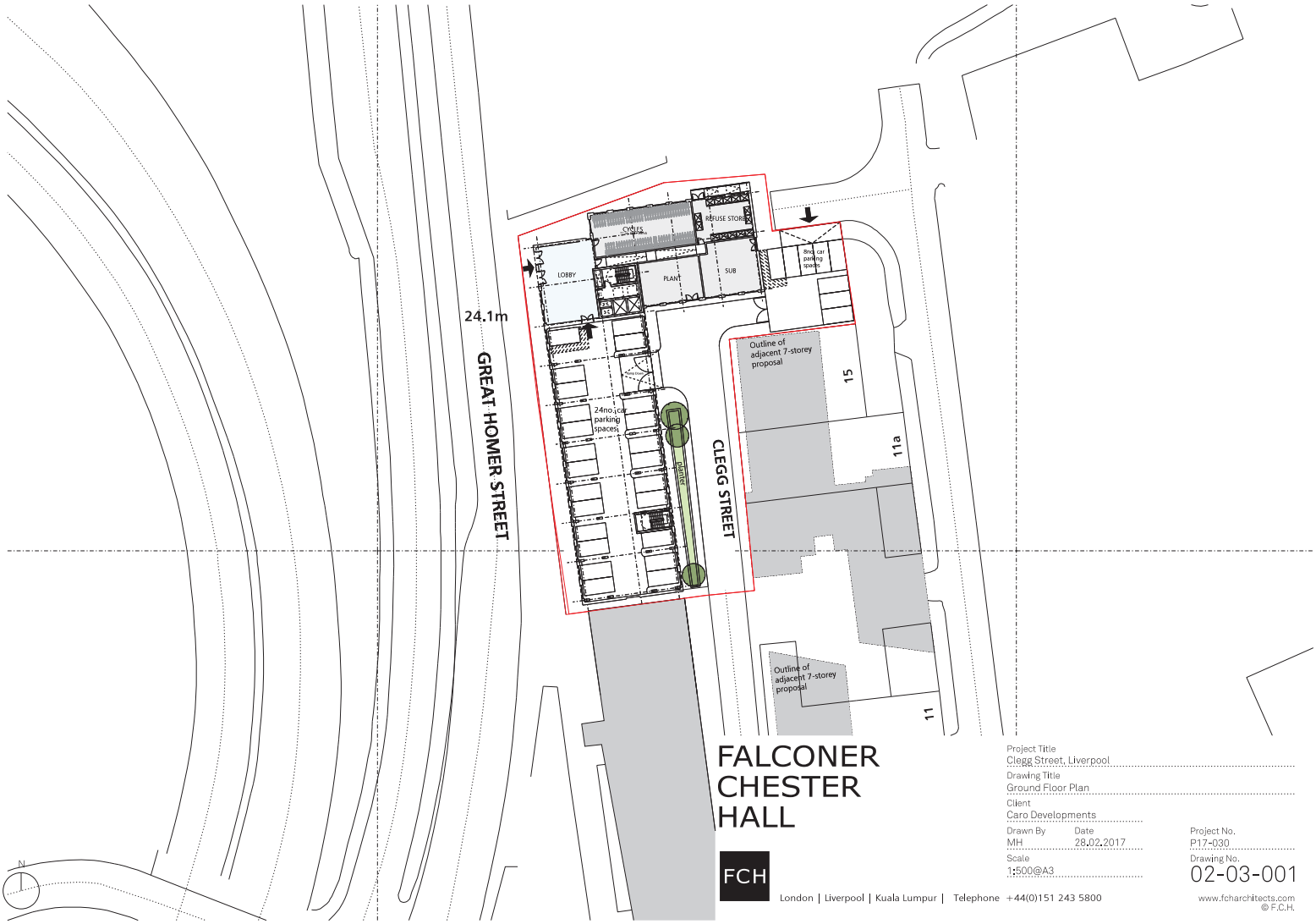
Client	Caro Developments
Project	Clegg Street, Liverpool
Title	Site Location Plan
Office	Altrincham
Discipline	Geo-environmental

clancy consulting
www.clancy.co.uk

REV	DATE	DESCRIPTION	BY	CHK.	APP.
Rev	Date	Description	By	Check	App.

Drawn	ACV	Date	September 2017
Checked	SHP	Scale @ A4	Not to scale
Approved	NR	Status	

Job number	Drawing number	Revision
10/1085	001	A



FALCONER CHESTER HALL

FCH

London | Liverpool | Kuala Lumpur | Telephone +44(0)151 243 5800

Project Title
Clegg Street, Liverpool

Drawing Title
Ground Floor Plan

Client
Caro Developments

Drawn By MH

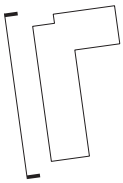
Date 28.02.2017

Project No. P17-030

Scale 1:500@A3

Drawing No. 02-03-001

Key:



Material Key:

1. Autumn Red Brick Stretcher Bond
2. Autumn Red Brick Stack Bonded
3. Aluminium Rain Screen Cladding - Colour TBC
4. Aluminium Window Curtain Walls and Doors - Colour TBC
5. Opaque Glass Infill Panel - Colour TBC
6. Perforated and Embossed Aluminium Cladding - Colour TBC
7. Stone / Concrete Feature Cornice
8. Aluminium / Glass Canopy

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HALL

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Rev B - 12.10.2017 - Amended to suit planning comments.
Rev A - 03.10.2017 - Minor amendments.

Project Title
Clegg Street, Liverpool

Drawing Title
Elevation 01

Client
Caro Developments

Drawn By: EO
Date: 03.04.2017
Scale: 1:250@A3

Project No.: P17-030
Drawing No.: 02-05-001

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APPENDIX II
HISTORICAL MAPS

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

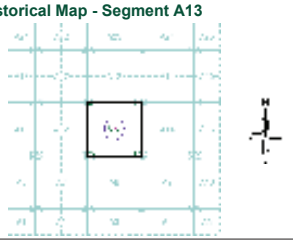
Large-Scale National Grid Data 1:2,500 and 1:1,250

Envirocheck

Landmark Information Group

Historical Mapping & Photography included:

Historical Map - Segment A13



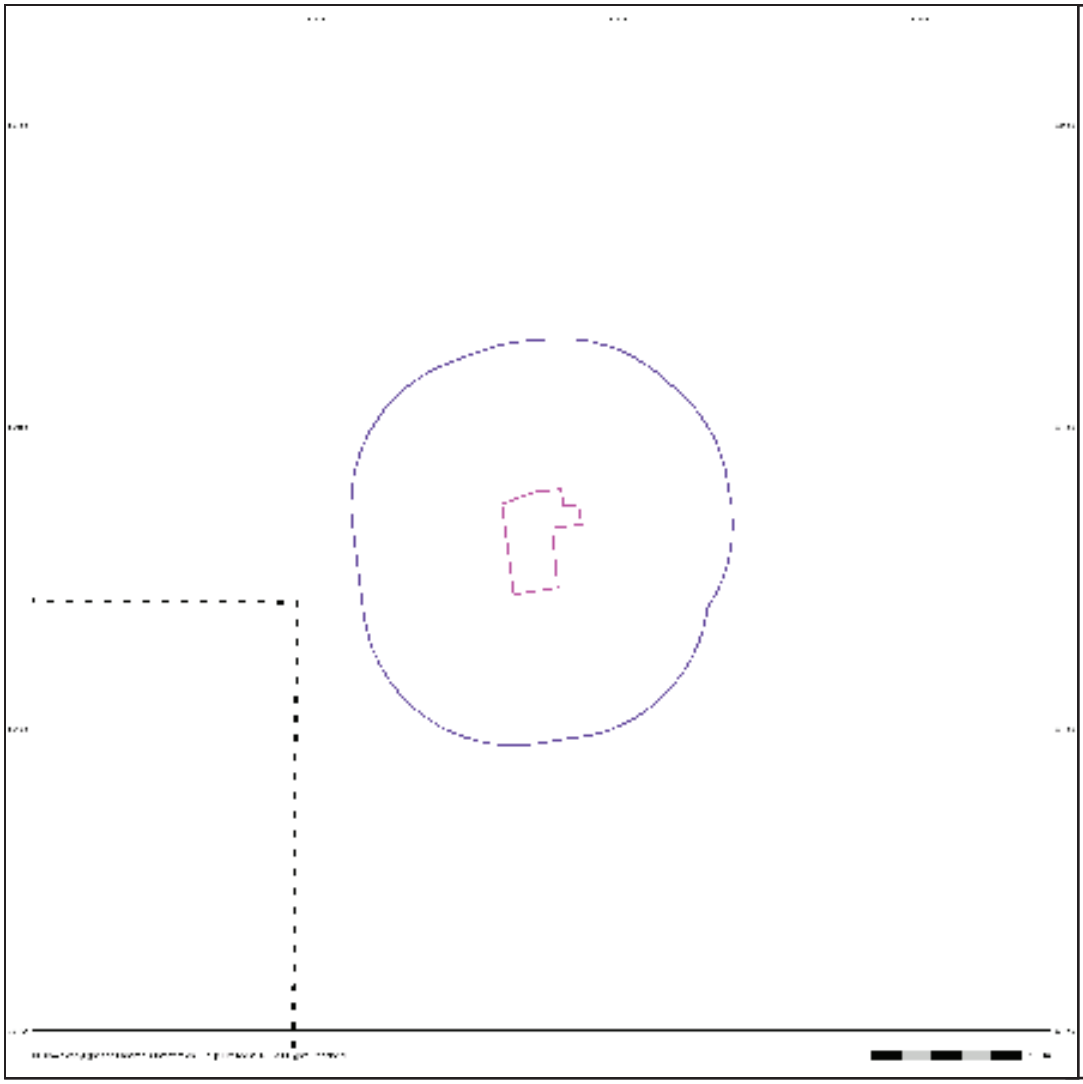
Order Details

Order Number: 139992043_1_1
Customer Ref: 10/1085
National Grid Reference: 335150, 391720
Slice: A
Site Area (Ha): 0.24
Search Buffer (m): 100

Site Details

Clegg Street, LIVERPOOL, L5 3LD

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Envirocheck

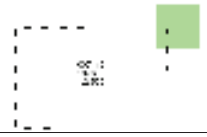
Cheshire

Published 1876

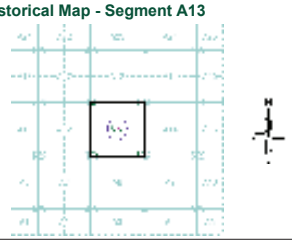
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	139992043_1_1
Customer Ref:	10/1085
National Grid Reference:	335150, 391720
Slice:	A
Site Area (Ha):	0.24
Search Buffer (m):	100

Site Details

Clegg Street, LIVERPOOL, L5 3LD

Envirocheck

ENVIRONMENTAL INFORMATION GROUP

Lancashire And Furness

Published 1893

Source map scale - 1:2,500

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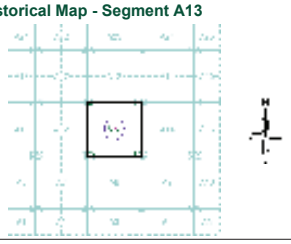
Map Name(s) and Date(s)

Historical Map - Segment A13



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Slice:	A
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Site Details

Clegg Street, LIVERPOOL, L5 3LD

Landmark

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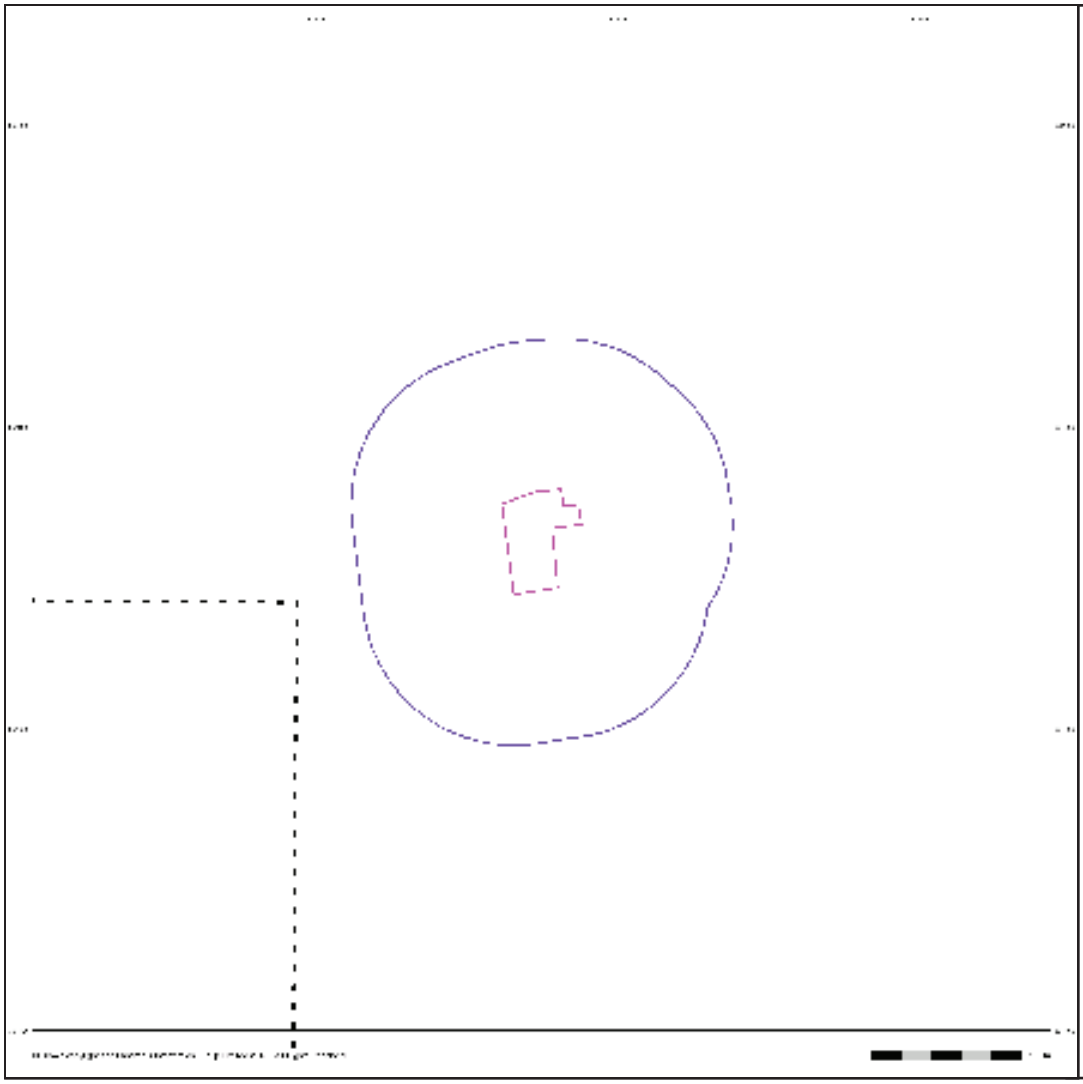


Envirocheck

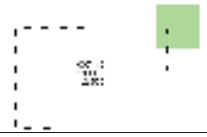
Cheshire

Published 1899

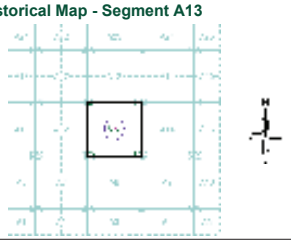
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



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