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**Phase I Desk Study Environmental
Assessment**

**Cadogan House, Rose Kiln Lane, Reading,
RG2 0HP**

Delta-Simons Project No. 13-0223.01



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environmental consultants

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This Report was issued in April 2013 and prepared by:
Delta-Simons Environmental Consultants, The Lawn Union Road, Lincoln, LN1 3BL
Tel: 0870 0400 012 Fax: 01522 882567 www.deltasimons.com

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PHASE I DESK STUDY ENVIRONMENTAL ASSESSMENT
CADOGAN HOUSE, ROSE KILN LANE, READING, RG2 0HP
DELTA-SIMONS PROJECT NUMBER: 13-0223.01

EXECUTIVE SUMMARY

Current Site & Surrounding Area	The Site is occupied by a two-storey building (ground and upper floor) in the west and car parking in the east. The building is currently used as a data centre/commercial offices. A building survey was undertaken by Malcolm Hollis LLP on 2nd April 2013. No potential sources of contamination, such as the storage of fuels or chemicals, were identified as being present on-Site at the time of the survey. To the north and south of the Site are commercial offices. To the east, beyond the A33, is an industrial estate. To the west, beyond Rose Kiln Lane, is Reading Link Retail Park.
Environmental Setting	The Site is underlain by Alluvium over Chalk, which are classified as being a Secondary A and a Principal Aquifer, respectively. Holy Brook is located approximately 50 m to the north-west of the Site. Based upon the available information, the Site setting is considered to be of moderate to high environmental sensitivity. EA data indicates that the Site is located within an area that is considered to be at a 'moderate' risk from fluvial or tidal flooding.
Historical Land Use	Historically, a works was present in the north of the Site by 1958. Whilst by 1971, the Site had been redeveloped, it was labelled as a works with a tank until sometime between 1997 and 2012. Potentially contaminative historical land uses identified within the close vicinity (100 m) of the Site include: railway lines, various works and a factory.
Local Authority Information	Delta-Simons has been informed from the Environmental Department at Reading Borough Council that the Site is on their list of prioritised sites under Part 2A, however, given the current commercial use, the Site is likely to be classified as a low priority.
Conceptual Site Model	Delta-Simons has completed a source-pathway-receptor risk assessment based upon available information. Potential sources of contamination have been identified at the Site, primarily associated with the historical unspecified works that was present between circa 1958 and 1997. However, given the current commercial use of the Site, which is predominantly covered in hardstanding, the potential risks to Human Health or controlled waters are considered to be low.
Overall Statement of Risk	On the basis of available information, Delta-Simons considers that with regard to potential soil and groundwater contamination issues and associated environmental liabilities, for its ongoing commercial use, the Site represents an investment opportunity with a Low overall risk status.

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**PHASE I DESK STUDY ENVIRONMENTAL ASSESSMENT
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DELTA-SIMONS PROJECT NO. 13-0223.01**

1.0 INTRODUCTION

1.1 Authorisation

Delta-Simons Environmental Consultants ('Delta-Simons') was instructed by BNY MELLON TRUST & DEPOSITARY (UK) LIMITED of The Bank of New York Mellon Centre¹, acting in its capacity as trustee and not otherwise of the AEW UK Core Property Fund c/o AEW UK Investment Management LLP² (the 'Client'), to undertake a Phase I Desk Study Environmental Assessment of Cadogan House, Rose Kiln Lane, Reading (hereafter referred to as the 'Site').

1.2 Context & Purpose

The purpose of the Report is to provide an assessment of the potential contamination status of the soil and groundwater beneath the Site. The assessment is being completed as part of due diligence for the proposed acquisition of the Site, in the context of the Site remaining in its current use.

The principal aims of a Phase I Environmental Assessment, as stated in British Standard BS10175:2011, are to obtain information in order to:

- Δ Evaluate the environmental setting of the Site and to identify sensitive receptors;
- Δ Provide information from which possible contaminant-pathway-receptor relationships can be identified; and
- Δ Formulate a Conceptual Site Model (CSM) to consider the significance of the contaminant-pathway-receptor relationships and identify whether further investigation is required.

This Report adheres to these principal aims and has been undertaken in accordance with current relevant guidance and best practice as set out within Contaminated Land Report (CLR) 11.

¹ 160 Queen Victoria Street, London EC4V 4LA

² 33 Jermyn Street, London SW1Y 6DN

1.3 Information & Scope of Works

In completing this Assessment, Delta-Simons has utilised and reviewed the following information:

- Δ Property Brochure by Strutt & Parker dated January 2013;
- Δ Current and Historical Ordnance Survey (OS) maps;
- Δ British Geological Survey (BGS) data;
- Δ Environment Agency (EA) data;
- Δ A Landmark Envirocheck Report® for the Site, dated April 2013;
- Δ Information provided by Reading Borough Council;
- Δ Information provided by the building surveyors, Malcolm Hollis; and
- Δ Strategic Flood Risk Assessment for Reading by Jacobs, dated March 2009.

Based on the information above, the scope of works performed by Delta-Simons for this Phase I Desk Study Environmental Assessment Report is presented in Table 1:

Table 1: Scope of Works

Data Collection	1. Review the environmental setting of the Site, including: – Review of current use/status of Site and adjacent areas, including consultation with the building surveyors; – Review of the geology, hydrogeology, hydrology and environmental sensitivity of the Site; and – Review the flood risk of the Site. 2. Review the history of the Site using historical OS maps. 3. Review regulatory information relating to the Site as detailed within an Envirocheck® Report. 4. Consult the Local Authority's Environmental Department to establish the current status of the Site in terms of the Council's Contaminated Land Inspection Strategy and any previous relevant information they may have associated with previous planning applications. 5. Review planning history of the Site on the Council's public access planning database.
Interpretation & Reporting	6. Formulate an initial CSM by identifying potential contamination sources, pathways and receptors, in the context of the current use of the Site. 7. Undertake a qualitative risk assessment. 8. Provide liability and asset impact risk statements. 9. Prepare final Report.

1.4 Limitations

This Report provides an assessment of the potential contamination status of the ground below the Site based upon the available information. It does not provide a geotechnical assessment/interpretation of the ground conditions and, as such, any comments relating to such matters are for information only.

This Assessment has been produced in accordance with the principles of BS10175:2011 in relation to a Preliminary Investigation. Although reference may be made to archaeological and ecological issues, or the potential presence of asbestos containing materials (ACM), this Report does not constitute an archaeological or ecological assessment, nor does it constitute an asbestos inspection.

Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client, Landmark Information Group and others. Delta-Simons' conclusions, opinions and recommendations are based upon this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

2.0 REVIEW OF SITE SETTING, HISTORY & REGULATORY INFORMATION

Current Site & Surrounding Area	The Site is located between Rose Kiln Lane and the A33, approximately 2.5 km to the south of Reading Town Centre. The Site is approximately centred on National Grid Reference (NGR) 471280, 172260. A Site location map is provided as Figure 1. The Site is occupied by a two-storey building in the west surrounded by small areas of amenity landscaping, and car parking in the east. It is understood from the property brochure that the current building was constructed in circa 2000 and is currently used as a data centre/offices by Pulsant (IT infrastructure services provider). A Site layout plan is presented as Figure 2. It is understood that a building survey was undertaken by Malcolm Hollis LLP on Tuesday 2nd April 2013. Delta-Simons has been informed that no significant potential sources of contamination, such as the storage of fuels or chemicals, were identified as being present at the Site at the time of the survey. To the north and south of the Site are commercial offices. To the east, beyond the A33, is an industrial estate. To the west, beyond Rose Kiln Lane, is Reading Link Retail Park.
Geology	From current British Geological Survey (BGS) online data, superficial deposits are indicated as being Alluvium (clay, silt, sand and gravel) beneath the Site. The bedrock comprises the Seaford and Newhaven Chalk Formations. From a borehole drilled approximately 30 m to the north-east of the Site in 1985 (identified on the BGS GeolIndex website, ref: SU77SW777), the geology comprises Made Ground (concrete rubble, loose ash and hardcore gravel) to 0.2 metres below ground level (m bgl), over silty clay to 3.8 m bgl, over sandy gravel and gravelly sand to 13.5 m bgl, over Chalk.
Hydrogeology	The superficial deposits are classified by the EA as being a Secondary A Aquifer and the bedrock is classified as being a Principal Aquifer. The Site is not located within a groundwater Source Protection Zone. According to the Envirocheck® Report (included as Appendix I), there are no groundwater abstraction records located within 1 km of the Site. From a borehole drilled close to the Site (as mentioned above) groundwater was encountered at 3.8 m bgl.
Surface Water Features	The nearest surface water feature is Holy Brook located approximately 50 m to the north-west of the Site. In addition, the River Kennett is located approximately 80 m to the south-east of the Site. According to the Envirocheck® Report, there is one current licensed abstraction from surface water recorded within 1 km of the Site. It is located approximately 920 m to the north associated with a lake and pond throughflow at a shopping centre.
Flood Risk	The Site is located within an area that is considered by the EA to be at risk from fluvial or tidal flooding. The flood risk category for the Site is classified as Zone 2 and according to the EA website, it is at 'moderate' risk meaning that the chance of flooding each year is 1.3% (1 in 75) or less, but greater than 0.5% (1 in 200). According to the Strategic Flood Risk Assessment, the Site is not shown within an area that has been historically affected by flooding. A map illustrating the flood risk area

	and nearest surface water features are shown in Appendix II.
Coal	The Envirocheck [®] Report indicates that the Site is not located within an area that is likely to be affected by coal mining activity.
Radon	The Envirocheck [®] Report indicates that the Site is not located within an area where radon protection measures are necessary in the construction of new buildings.
Environmental Sensitivity	Based on the above, the environmental sensitivity of the Site's setting is considered to be moderate to high.
Historical Map Review	Historical maps of the Site, obtained from Landmark as part of the Envirocheck [®] Report, have been reviewed and are included as Appendix III. A summary of the key information is provided below:
Site	- Δ On the earliest map edition of 1879, a watercourse appears to be present in the far north-west corner of the Site, however, it is no longer present by 1899, and therefore, it may have been in-filled; - Δ By 1958, there are two buildings located in the north of the Site that are labelled as an unspecified works on the 1963 map edition; - Δ By 1971, the Site has been redeveloped with two larger buildings across the Site labelled as an unspecified works and on the 1976 map edition, an electricity substation and a tank are labelled as being present in the east; and - Δ Between 1997 and 2012, the Site is redeveloped into the current layout.
Surrounding Area	Potential sources of contamination identified in the surrounding area (within 250 m) include: - Δ Railway lines located approximately 10 m to the south-east of the Site, between circa 1912 and 1987; - Δ An unspecified works located approximately 20 m to the west of the Site, between circa 1963 and 1992; - Δ An unspecified works located approximately 30 m to the north-east of the Site, between circa 1958 and 1992; - Δ A preserve works located approximately 40 m to the south of the Site, from circa 1932, and a building in its location is part of an industrial estate by circa 1987; and - Δ A large factory located approximately 60 m to the north-west of the Site, between circa 1958 and 1992.
Envirocheck[®] Report	From regulatory information listed in the Envirocheck[®] Report, there are no records of potential concern that relate directly to the Site. Situated within 100 m of the Site are entries associated with concrete products, timber manufacturers, car body repairers, meter manufacturers, car dealers and building merchants. These are considered to represent potential off-Site sources of contamination.
Local Authority Consultation	Delta-Simons has been informed from the Environmental Department at Reading Borough Council that the Site is on their list of prioritised sites under Part 2A of the Environmental Protection Act 1990. Whilst they have not finalised the priority of all sites that are on their list, given the current commercial use, the Site is likely to be classified as a low priority. They also undertook a review of planning information. Outline planning permission for possibly the current development was granted on 10th January 1989 (reference: 88/TP/1255), however, no further information was found in their records. However, they mention that planning conditions associated with contaminated land are unlikely given the time of the consent. A reserved matters application was later granted for a two storey B1 building (reference: 95/0127/RM). There were no

	planning conditions associated with contaminated land. They also confirmed that they have no records of any previous intrusive investigations at the Site. Local Authority information is included as Appendix IV.
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3.0 CONCEPTUAL SITE MODEL

3.1 Introduction

A CSM represents the relationships between contaminant sources, pathways and receptors, to support the identification and assessment of possible pollutant linkages (PPL) - and an assessment of known pollutant linkages, where identified from existing information.

Where PPLs are identified, a preliminary risk assessment is carried out to assess the likelihood that each possible linkage exists and to decide whether these pose potentially unacceptable risks to identified receptors and require further assessment. Where this linkage is of a form that subsequently leads to land being identified as 'contaminated land' under the terms of Part 2A of the Environmental Protection Act 1990, the linkage is termed a significant pollutant linkage.

At the preliminary risk assessment stage, which is usually based upon desk top information, the decision on whether a PPL poses a potentially unacceptable risk is based upon professional judgement. The significance of the PPL will also be determined dependant on the context of the land use and the purpose of the assessment.

Assessing risks from land contamination underpins the "suitable for use" approach adopted for Part 2A of the Environmental Protection Act 1990 regulatory regime.

3.2 CSM Summary & Risk Assessment

The Site is occupied by a two-storey commercial building and car parking, constructed in circa 2000. Historically, the Site was occupied by a works between circa 1958 and 1997, which included a tank. Potential off-Site sources of contamination have also been identified within 100 m of the Site, which include railway lines, works and manufacturers.

The environmental sensitivity of the Site setting is considered to be moderate to high, given the geology (Alluvium over Chalk), which are classified as being a Secondary A and Principal Aquifers and the Holy Brook is located approximately 50 metres from the Site. However, the surrounding area is of commercial/industrial use.

Based on the information reviewed, a preliminary risk assessment using the source-pathway-receptor approach has been formulated, which identifies PPLs at the Site in the context of the continued commercial use of the Site. It is noted that the risk definitions are provided in Appendix V.

Table 2: Conceptual Site Model

Source	Pathway	Receptor	Risk	Justification and Further Action/Mitigation Required
Any contaminants in soils and/or shallow groundwater beneath the Site primarily from the historical works	Direct contact/ingestion and inhalation of dust and vapours	Site users/visitors	Low Risk	Whilst there is the potential for contamination to be present from the historical works, given the current Site was developed circa 2000 and its commercial use, which is predominantly covered by the building and hardstanding, the risk is considered to be low.
	Direct contact/ingestion and inhalation of dust and vapours	Construction/maintenance groundworkers	Moderate Risk	There is the potential for construction/maintenance groundworkers to become exposed to any contaminated soils or shallow groundwater during any intrusive groundworks undertaken at the Site. Safe working practices should be implemented and appropriate personal protective equipment (PPE) should be used to mitigate any potential risk from contact with soils and shallow/perched groundwater.
	Leaching and migration through any shallow groundwater present beneath the Site	Controlled Waters	Low Risk	Whilst any contamination from the historical works could have leached and migrated into shallow groundwater, given the time since the works was present, the presence of some clay deposits associated with the Alluvium beneath the Site, and the current building and hardstanding that will limit the extent of rainfall infiltration and leaching of contaminants, the risk is considered to be low.
	Direct contact and permeation	Service conduits	Low Risk	Hydrocarbons, especially aromatics and chlorinated solvents, are known to permeate plastic pipes, especially when encountered in high concentrations. However, given the current Site was developed circa 2000, it is considered unlikely that water supply pipes would have been placed in areas of contamination. In addition, there are no known reported issues associated with the water supply.
	Off-Site neighbouring properties and users	Lateral migration via any groundwater beneath the Site	Low Risk	Given the commercial/industrial nature of the surrounding area, the risk to neighbouring properties is considered to be low.
Ground gas from Made Ground and/or Alluvium beneath the Site	Vertical and lateral migration and accumulation of gas in enclosed spaces and sub-floor voids	Site users & the building	Low Risk	Given the potential sources of ground gases, significantly elevated concentrations are unlikely to be present. In addition, given the current commercial use of the Site, which does not include a basement level, the risk is considered to be low.
Contaminated groundwater from identified potential off-Site sources	Lateral migration via any shallow groundwater beneath the Site	Site users	Low Risk	Potential historical and current sources of contamination have been identified within the vicinity of the Site, however, no evidence of significant releases of contaminants has been identified. In addition, the hardcover across the majority of the Site will help to mitigate the potential risk to the Site users from any contamination, therefore, the risk is considered to be low.

4.0 CONCLUSIONS & RECOMMENDATIONS

4.1 Summary, Conclusions and Recommendations

Current Site Summary	The Site is currently occupied by a two storey building and associated car parking used as a data centre/commercial offices.
Conceptual Site Model	Delta-Simons has completed a source-pathway-receptor risk assessment based upon available information. Potential sources of contamination have been identified at the Site, primarily associated with the historical unspecified works that was present between circa 1958 and 1997. However, given the current commercial use of the Site, which is predominantly covered in hardstanding, the potential risks to Human Health or controlled waters are considered to be low.
Conclusions & Recommendations	Delta-Simons considers that intrusive investigation is not required at the Site, prior to acquisition, in the context of the Site remaining in its current use. Given that the current Site was developed circa 2000, previous intrusive investigation(s) may have been undertaken, therefore, it is recommended that any associated available reports are obtained from the vendor. As with any Brownfield land, should any future redevelopment of the Site be proposed, the regulatory bodies are likely to require additional environmental assessment of the Site under the planning process. Any groundworkers who perform sub surface work at the Site should wear appropriate PPE. Given the Site is located within a potential flood risk area, it is recommended that appropriate flood insurance can be obtained for the Site. In addition, consideration should be given to undertaking a further flood risk assessment by a flood specialist that will compare current Site levels with specific EA flood data for the local area.

4.2 Risk Statements

This Assessment considers both perceived and actual risks using the Source, Pathway, Receptor concept, with the principal measure of risk being whether significant harm (to people, animals, property (including buildings, cattle etc.), or ecosystems) or pollution of controlled waters (surface water bodies, aquifers, coastal waters, or territorial waters) is being caused, or whether there is a significant possibility of such harm being caused.

The overall risk classification, based on the source-pathway-receptor principle, adopted for this preliminary assessment, is defined as follows:

- Δ Negligible risk – issue very unlikely to present a liability or cost;
- Δ Low risk – issue unlikely to present a liability or cost;

- Δ Moderate risk – issue may present a liability or cost, but these may be limited;
and
- Δ High risk – likely that significant liabilities and/or costs exist.

Following the collection and review of desk study data, Delta-Simons has formulated a CSM. On the basis of the CSM, Delta-Simons considers that in the context of the Site's current use, the following risk and liability statements can be made:

Table 3: Liability Assessment

Regulatory Body Enforcement under Part 2A or WRA	There is a Low risk of enforcement action at the Site, for its ongoing commercial use.
Third Party Liability	Potential for legal action by surrounding landowners based on the potential for contamination to migrate off-Site is considered to be Low .
Investment Impact	Delta-Simons considers there to be a Low risk of impact on the value of the Site from significant contamination issues.
Overall Statement of Risk	On the basis of available information, Delta-Simons considers that with regard to potential soil and groundwater contamination issues and associated environmental liabilities, for its ongoing commercial use, the Site represents an investment opportunity with a Low overall risk status.

5.0 LIMITATIONS TO ENVIRONMENTAL ASSESSMENTS

The recommendations contained in this Report represent Delta-Simons' professional opinions, based upon the information referred to in Section 1.0 of this Report, exercising the duty of care required of an experienced Environmental Consultant. Delta-Simons does not warrant or guarantee that the Site is free of hazardous or potentially hazardous materials or conditions.

Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client and others. Delta-Simons' conclusions, opinions and recommendations have been determined using this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1.1 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

This Report was prepared by:



Jayne Pearson

Senior Environmental Scientist

16/04/2013

Date

This Report was reviewed and authorised by:



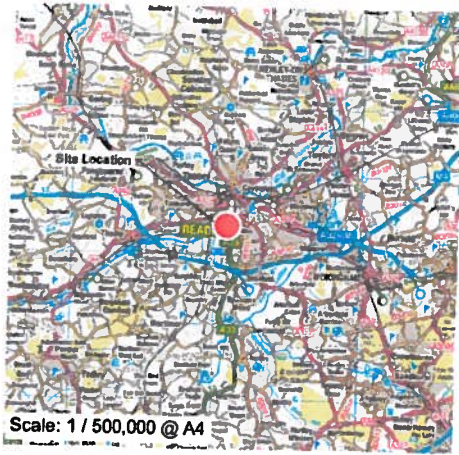
Alan Crossfield

Senior Consultant & Unit Manager

16/04/13

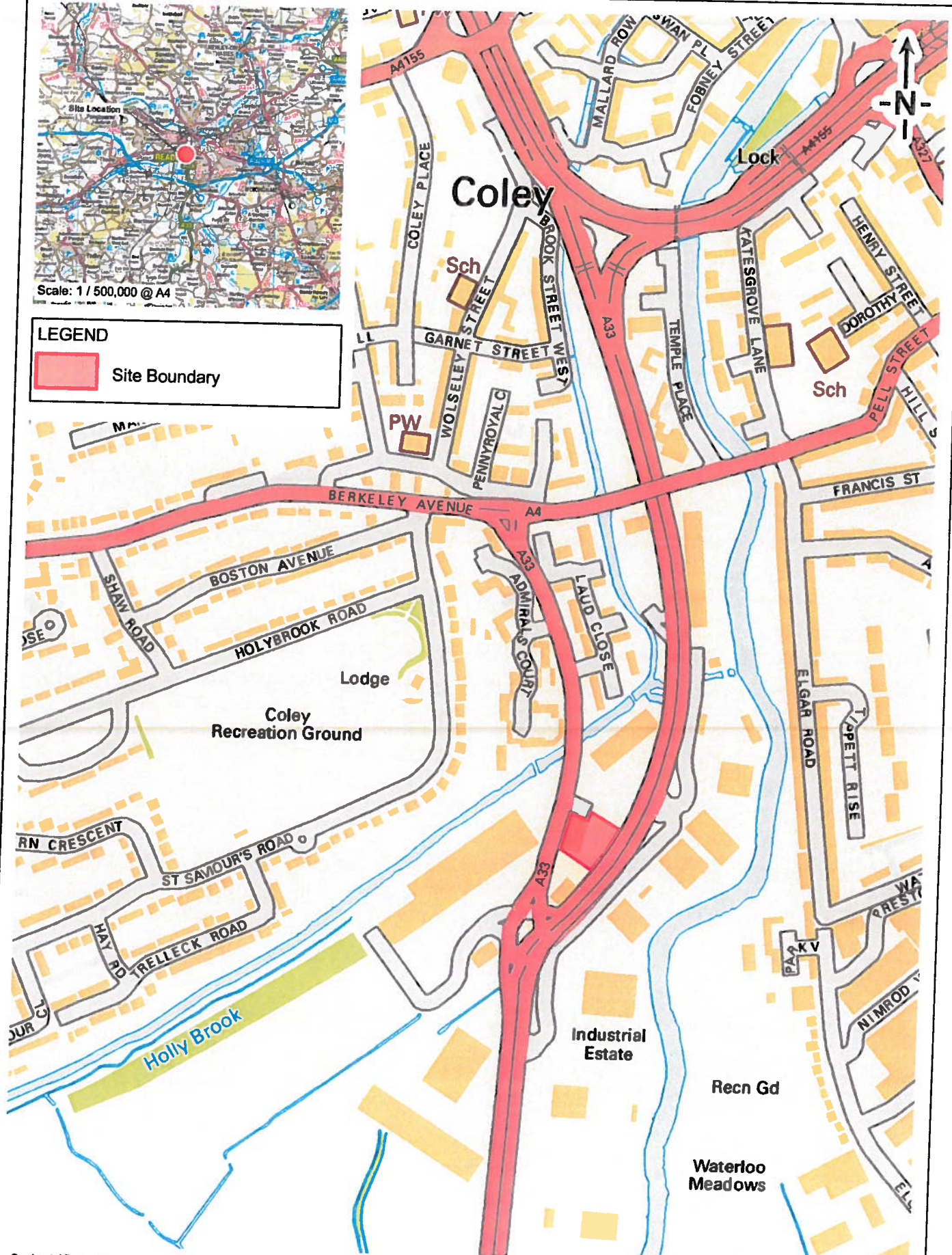
Date

Figures



LEGEND

Site Boundary



Scale: 1 / 5,000 @ A4

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TITLE
Site Location Map
Cadogan House, Rose Kiln Lane
Reading

DWN	DE	SCA	To Scale@A4
CHK	JP	REV	1
DATE	10 April 2013		

PROJECT NO.	13-0223.01
FIGURE NO.	1

LEGEND

 Site Boundary



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TITLE
Site Layout Plan
Cadogan House, Rose Kiln Lane
Reading

OWN	DE	SCA	Not to Scale
CHK	JP	REV	1
DATE	10 April 2013		

PROJECT NO:	13-0223.01
FIGURE NO:	2