



Colworth Park Sharnbrook

Archaeological Evaluation



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Summary

Wessex Archaeology has been commissioned by 2110 Consult on behalf of AG Colworth Park B.V. ('the client'), to undertake an archaeological evaluation of a 2.8 ha parcel of land located in Colworth Park, Sharnbrook, Bedfordshire, MK44 1LZ. The evaluation area is centred on NGR 497755, 260169 (**Fig. 1**). The evaluation took place from 23rd November 2020 to 27th November 2020.

The evaluation comprised five evaluation trenches, measuring between 18 m and 23 m long by approximately 2 m across. Trench 2 was proposed but not excavated, due to its proximity to services and vegetation. The remaining trenches exposed layers of made ground associated with the demolition of previous structures on the site. One natural feature was excavated but no archaeological features were uncovered.

Acknowledgements

Wessex Archaeology would like to thank AG Colworth Park B.V. and 2110 Consult for commissioning the archaeological evaluation, in particular Andrew Brenton of 2110 Consult. Wessex Archaeology is also grateful for the advice of Geoff Saunders the Archaeological Curator who monitored the project for Bedford Borough Council, and Keith Purdie for his cooperation and help on site.



Colworth Park, Sharnbrook - Evaluation

Archaeological Evaluation

1 INTRODUCTION

1.1 Project and planning background

1.1.1 Wessex Archaeology was commissioned by 2110 Consult on behalf of AG Colworth Park B.V, to undertake an archaeological evaluation of a 2.8ha parcel of land located in Colworth Park, Sharnbrook, Bedfordshire, MK44 1LZ. The evaluation area is centred on NGR 497755, 260169 (**Fig. 1**).

1.1.1 The development proposals are for an advanced manufacturing facility comprising workshops and stores along with associated office facilities (hereafter the 'Unilever Building') in the north-western part of the Site. Along with a National Hydroponics Demonstrator and Skill Centre (the 'Growpura Building') to be situated within the south-western part of the Site.

1.1.2 Planning applications (20/02360/MAF; 20/02431/MAF) have been submitted to Bedford Borough Council for the development and are awaiting determination.

1.1.3 All works were undertaken in accordance with a written scheme of investigation (WSI) which detailed the aims, methodologies and standards to be employed in order to undertake the evaluation (Wessex Archaeology 2020b). Archaeological Curator at Bedford Borough Council approved the WSI, on behalf of the Local Planning Authority (LPA), prior to fieldwork commencing.

1.1.4 The evaluation comprising 5 trial trenches was undertaken from the 23rd November 2020 to the 27th November 2020.

1.2 Scope of the report

1.2.1 The purpose of this report is to provide a detailed description of the results of the evaluation, to interpret the results within a local, regional or wider archaeological context and assess whether the aims of the evaluation have been met.

1.2.2 The presented results will provide further information on the archaeological and facilitate an informed decision regarding the requirement for, and methods of, any further archaeological mitigation.

1.3 Location, topography and geology

1.3.1 The Site is an irregular parcel of land of approximately 2.8ha. The Site is currently occupied by an area of car park and a small electrical substation. The rest of the Site is either landscaped including areas of trees and scrub or part of the road network that runs through Colworth Park. To the east of the Site lies existing buildings within the Science Park.

1.3.2 The Site is located in an area of transitional geological formations that collectively form the Great Ouse Valley slope and is comprised of bands of the Cornbrash Formation- Limestone, Blisworth Clay Formation- Mudstone and Blisworth Limestone Formation. All three



formations were formed during the Jurassic period and were laid down in the shallows of the Jurassic sea and part of the wider Great Oolite Group. (British Geological Survey online viewer).

- 1.3.3 The evaluation trenches revealed the varying layers of made ground found during the geotechnical works recently undertaken within the Site on the proposed sites of the two buildings (Deltasimons 2020a, 2020b). The works identified that the site has a varied stratigraphy made up initially of made ground deposits overlying natural geology. Two ground investigation test pits (TP101 and TP202) excavated to the south-west of the proposed and unexcavated Trench 2, indicate the soil sequence in this area (**Appendix 3**).
- 1.3.4 Areas of the Site have been subject to terracing, thought to be associated with the former buildings that were located on the site and construction of the northern car park.
- 1.3.5 The Site has a varying topography of between 70-74m above Ordnance Datum (aOD) with the western section of the Site set at approximately 73m aOD which drops abruptly in the eastern section to 71m aOD. The sudden change in the Site topography is thought to be the result of terracing in the western section of the Site.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

- 2.1.1 The archaeological and historical background was assessed in a prior desk-based assessment (Wessex Archaeology 2020a), which considered the recorded historic environment resource within a 1 km study area of the proposed development. A summary of the results is presented below, with relevant entry numbers from the Bedfordshire Historic Environment Record (BHER) and the National Heritage List for England (NHLE) included. Additional sources of information are referenced (such as the Portable Antiquities Scheme (PAS)), as appropriate.

2.2 Archaeological and historical context

Prehistoric (970,000 BC–AD 43) and Romano-British (AD 43–410)

- 2.2.1 A D-shaped enclosure of potential later prehistoric date (BHER, MBB22390) lies around 400 m to the southwest of the Site. This is in the vicinity of the Roman Yelow villa (BHER 2669). Investigation of the villa site also identified two Iron Age roundhouses (BHER, EBB950; Wessex Archaeology 2009), indicating both Iron Age and Romano-British settlement in this area and possible continuity of occupation. An item of Roman gold jewellery is recorded as being found in this area (BHER, MBB21848), and the excavation at Yelow villa identified some 'high status' features (Wessex Archaeology 2009).
- 2.2.2 A further area of later prehistoric and Romano-British activity lies approximately 500m to the west and northwest of the Site. This includes cropmarks interpreted as evidence of an Iron Age or Romano-British settlement (BHER, MBB22581), with several Roman coins and pottery recovered from the grounds of Colworth House (MBB15981).
- 2.2.3 A Roman road is projected as passing some 150m to the northwest of the Site (BHER 728) which is likely to have formed a focus for activity. However, the exact route of the road has not been verified within the Study Area.
- 2.2.4 Although evidence for earlier prehistoric activity within the Study Area is limited, several flint tools have been recorded by the Portable Antiquities Scheme (PAS) in the Study Area indicating activity from the Mesolithic, Neolithic and Bronze Age.

Saxon (AD 410–1066)

- 2.2.5 While there are no confirmed Saxon features within the Study Area, a small number of Anglo-Saxon finds are recorded through the PAS. The settlement of Sharnbrook, just to the southeast of the Study Area was a sizable settlement by the time of the 1086 Domesday Survey and so is likely to have has pre-Norman origins.

Medieval (AD 1066–1500)

- 2.2.6 A deserted medieval village is recorded at Colworth to the southeast of the house based on earthwork remains, however more recent investigations based on aerial photographs and remote sensing failed to identify any evidence of its existence (BHER 722). Another deserted settlement has been determined from earthworks at the eastern edge of the Study Area (BHER 15675).
- 2.2.7 Although the recent investigations of the deserted medieval village failed to confirm its existence, Colworth Manor and an associated settlement are known to have existed in the area from the 13th century (Page 1912). Colworth Manor was a sub-manorial estate of Sharnbrook that passed through several aristocratic families until it became the property of the Crown in the late 15th century. The original manor house may have been demolished during the construction of Colworth House in the 18th century.
- 2.2.8 Areas of ancient woodland (BHER 13091, 13112, 13113, 13114, 13241) and ridge and furrow earthworks (BHER 1642, 5122) suggest a mostly open rural landscape during the medieval period.

Post-medieval (AD 1500–1900)

- 2.2.9 In the early 16th century, Colworth Manor was granted by Richard III to Thomas Lynom, with the Manor remaining in the Lynom family until 1700 when it was purchase by Marc Antonie, Steward of the Duke of Montagu. Between 1715-1720 Colworth House was constructed as a grand county house comprised initially only of the central wing, with side wings and linked blocks added in the 1770s. Colworth House remained in the Antonie family until the early 20th century. The house was granted Grade II* listed status in May 1952.
- 2.2.10 Colworth Park is the former informal parkland associated with Colworth House. The parkland mainly comprised of meadow, likely used for grazing livestock with pockets of woodland on its boundaries. The known boundaries of Colworth Park have been mapped by BHER and indicates that the site fell outside the parkland. The Site did, however, fall within the landholdings of the Colworth Estate used by Antonie Farmstead. Marc Antonie had established the farmstead as a new model farm.
- 2.2.11 Very little changed within the Study Area during the post-medieval period, with the landscape remaining an open rural landscape with areas of ancient woodland. The only notable developments were the sinking of two gravel pits to the south (BHER 9697) and northeast (BHER MBR22580) of the Site. Gravel extraction became a lucrative means of income for landowners as demand increased within the construction industry as a result of the industrial revolution.

Modern (1900 – present)

- 2.2.12 The Colworth Estate was to Unilever in November 1947. Unilever eventually set about developing the Park in the 1970s, constructing several laboratory buildings surrounding the central grassed area.



- 2.2.13 The earliest depiction available for this assessment was the First Edition Ordnance Survey dated to 1884. The map shows the Site as agricultural land comprised of two fields with Colworth House shown to the east. The site did not change until the 1960s or 1970s.
- 2.2.14 Between 1960 and 1975, several buildings were constructed within the Site. Oblique aerial photographs show all buildings were single-storey structures and used as part of the animal research division of the Agricultural Research Establishment, established by Unilever. The aerial photos also show areas of concrete hardstanding in the northern and western part of the site that were used for temporary structures. By 2002, all buildings and areas of hardstanding had been demolished and replaced with the two existing car parks (Google Satellite Imagery).

Undated

- 2.2.15 The HER has recorded several undated slag patches throughout the Study Area. As a waste product of smelting or refining ore, the slag would suggest that such activities took place within the Study Area.

3 AIMS AND OBJECTIVES

3.1 General aims

- 3.1.1 The general aims of the evaluation, as stated in the WSI (Wessex Archaeology 2020b) and in compliance with the ClfA *Standard and guidance for archaeological field evaluation* (ClfA 2014a), were to:

- provide information about the archaeological potential of the site; and
- inform either the scope and nature of any further archaeological work that may be required; or the formation of a mitigation strategy (to offset the impact of the development on the archaeological resource); or a management strategy.

3.2 General objectives

- 3.2.1 In order to achieve the above aims, the general objectives of the evaluation were to:

- determine the presence or absence of archaeological features, deposits, structures, artefacts or ecofacts within the specified area;
- establish, within the constraints of the evaluation, the extent, character, date, condition and quality of any surviving archaeological remains;
- place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- make available information about the archaeological resource within the site by reporting on the results of the evaluation.

3.3 Site-specific objectives

- 3.3.1 Following consideration of the archaeological potential of the Site, the site-specific objectives of the evaluation are to:

- Establish the degree and extent of previous disturbance within the Evaluation Area.

4 METHODS

4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (Wessex Archaeology 2020b) and in general compliance with the standards outlined in ClfA guidance (ClfA 2014a). The methods employed are summarised below.

4.2 Fieldwork methods

General

4.2.1 The trench locations were set out using a Global Navigation Satellite System (GNSS), in the approximate positions proposed in the WSI (**Fig. 1**).

4.2.2 Five trial trenches, measuring between 18 m and 23m in length and approximately 2m wide, were excavated in level spits using a 360° excavator equipped with a toothless bucket, under the constant supervision and instruction of the monitoring archaeologist. Machine excavation proceeded until either the archaeological horizon or the natural geology was exposed.

4.2.3 The tarmac surface of trenches 4 and 5 was broken out using an excavator breaker before stripping in level spits with the excavator.

4.2.4 Trench 2 was not excavated due to its proximity to services, trees and shrubs.

4.2.5 Where necessary, the base of the trench/surface of archaeological deposits were cleaned by hand. A sample of features and deposits was hand-excavated, sufficient to address the aims of the evaluation.

4.2.6 Spoil from machine stripping and hand-excavated archaeological deposits was visually scanned for the purposes of finds retrieval.

4.2.7 Trenches completed to the satisfaction of the client and the Archaeological Curator, were backfilled using excavated materials in the order in which they were excavated, and left level on completion.

4.2.8 The tarmac which overlay trenches 4 and 5 was gathered into two piles, one on the southern edge of site to the east of trench 4 and the other in the middle of site on the eastern side of trench 5. Both piles were positioned on top of the existing tarmac carpark surface.

Recording

4.2.9 All exposed archaeological deposits and features were recorded using Wessex Archaeology's pro forma recording system. A complete record of excavated features and deposits was made, including plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid.

4.2.10 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.



- 4.2.11 A full photographic record was made using digital cameras equipped with an image sensor of not less than 16 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4.3 Finds and environmental strategies

- 4.3.1 No finds were recovered and no environmental samples were taken.

4.4 Monitoring

- 4.4.1 The Archaeological Curator monitored the evaluation on behalf of the LPA and visited the site on the 26th November 2020.

5 STRATIGRAPHIC EVIDENCE

5.1 Introduction

- 5.1.1 No archaeological features or deposits were found during the archaeological evaluation. Trench 4 contained one feature which on investigation was determined as natural geology (**Plate 6**).
- 5.1.2 Detailed descriptions of individual contexts are provided in the trench summary tables (**Appendix 1**). **Figure 1** shows all excavated trenches.
- 5.1.3 Trench 2 was not excavated due to on site constraints, however there are two recent ground investigation trial pits (TP101 and TP202) excavated to the south-west of Trench 2 which indicate the soil sequence in this part of the site. The trial pit logs and location plans have been included within **Appendix 3**. TP101 confirmed the presence of two made ground deposits present to at least 0.50 m in depth below ground level. The pit was terminated at 0.5 m due to the presence of unknown services and brick walls, the latter located along the western and eastern edges of the pit (Deltasimons 2020a). TP202 indicated made ground to 0.20 m in depth below ground level (Deltasimons 2020b).

5.2 Soil sequence and natural deposits

- 5.2.1 The stratigraphic sequence varied considerably across the site, this was likely caused by the demolition of buildings that previously stood on the site, which were replaced by the current carparks.

5.3 Trench 1

- 5.3.1 Trench 1 was the northern most trench and was situated in an area of manicured grass. The topsoil (101) was of a dark greyish brown silty clay loam with sub-angular and sub-round stones.
- 5.3.2 This overlain three layers of made ground (102, 103, 104) at the north-west end of trench 1 which were uncovered from 0.20-0.65m below ground level (BGL). These layers are likely derived from the demolition of the previous structures as they contained fragments of ceramic building material (CBM); this material was used to build up the ground surface (**Plate 1**).
- 5.3.3 At the south-east end of trench 1, beneath the topsoil, layer 107 (0.30-0.66m BGL) may have been some sort of hard standing or yard associated with previous structures suggested by its tight compaction, layer 108 (0.60-0.86m BGL) may have been bedding for this (**Plate 2**).



5.3.4 The natural (105, 106, 109) varied from reddish brown to yellowish brown clay, with common limestone and mudstone fragments (0.62-0.86m BGL).

5.4 Trench 3

5.4.1 Trench 3 was excavated in an area of manicured grass towards the western edge of the site. This area did not appear to have been heavily disturbed. Two north east – south west aligned land drains were revealed towards the northern end of the trench and a water pipe on the same alignment toward the southern end. The stratigraphy comprised of a dark greyish brown silty clay loam topsoil (301, 0-0.15m BGL), greyish brown silty clay subsoil (302, 0.15-0.045m BGL), and brown clay natural (303 0.40m+ BGL) with a pale variation at the southern end (**Plate 3**).

5.5 Trench 4

5.5.1 Trench 4 located towards the southern limit of the site was dug through the current tarmac carpark surface (401) and its bedding of sand (402) to reveal a layer of made ground (403, 0.20-0.36m BGL). This comprised of various CBM, mortar and stone fragments likely derived from the demolished buildings and used to build up the area from the carpark. This overlain disturbed clay natural (404, 0.36-0.43m BGL) containing fragments of tarmac and CBM. The natural (405, 0.43m+ BGL) revealed in the base of the trench was reddish brown clay with mudstone fragments (**Plates 20 and 21**).

5.5.2 A feature was uncovered at the eastern end of trench 4 (**Plate 6**), excavation of the feature confirmed it to be of natural origin, not of archaeological derivation.

5.6 Trench 5

5.6.1 Trench 5 was located towards the southern limit of site was dug through the current tarmac surface (501) and its bedding of sand (502). Beneath this the layers varied from north to south.

5.6.2 At the northern end a layer of concrete (503, 0.12-0.22m BGL) was revealed which had a bedding of blackish grey clay (504, 0.19-0.30m BGL). Beneath this was a layer of reddish-brown sandy silt made ground (505, 0.30-0.40m BGL) (**Plate 7**).

5.6.3 At the southern end of the trench beneath the tarmac and bedding was a layer of black coarse gravel loose tarmac fragments used as bedding material (507, 0.08-0.18m BGL), this overlain another layer of sand bedding (508, 0.15-0.22m BGL). Beneath this was a layer of demolition rubble (509, 0.19-0.37m BGL) comprising of concrete with stone and brick embedded. This overlain a greyish brown sandy clay made ground (510, 0.33-0.46m BGL) (**Plate 8**).

5.6.4 The natural at the base of trench 5 was found to be yellowish brown with grey hue clay with very common mudstone inclusions (506, 0.35m+).

5.6.5 Located in approximately the middle of the trench was an east – west aligned concrete culvert (**Plate 9**). On its northern side redeposited natural that most likely part of the instalment of the culvert. From the northern end of the trench a north - south aligned French land drain (filled with stone pebbles) enters the trench and is cut by the culvert. The drain appears on the southern side of the culvert and turns eastwards.

5.7 Trench 6

- 5.7.1 Trench 6 was dug in an area of manicured grass towards the south east corner of site. The stratigraphy comprised of a greyish brown silty clay loam topsoil (601, 0-0.25m BGL), followed by a made ground consisting of redeposited natural and demolition rubble (602, 0.25-0.40m BGL). This overlain a buried soil (603, 0.40-0.65m BGL), possibly the original ground before the previous buildings were demolished and the ground was built up, this comprised of greyish brown silty clay loam (**Plate 10**)
- 5.7.2 The natural within this trench varied from a greyish brown clay (504 0.65m+ BGL) to a blueish grey clay (605, 0.75m+ BGL), and contained sub-angular mudstone fragments.

6 CONCLUSIONS

6.1 Summary

- 6.1.1 Despite the site's proximity to known Iron Age, Romano-British, medieval and post-medieval activity, no archaeological features were revealed within the trenches excavated during the investigations.
- 6.1.2 The results of the evaluation indicate a low potential for archaeological remains within the proposed development area of the Site.

6.2 Discussion

- 6.2.1 The layers of disturbed natural and lack of buried soils beneath the layers of made ground suggest that the area would have been stripped of its topsoil, subsoil and likely some of the natural clays on the construction of the buildings in the 1960s, and when they were demolished by 2002.
- 6.2.2 Trench 3 was located on the west side of the Site in an area that would have been between two of the previous structures. It appeared to be the only trench with an intact topsoil subsoil natural sequence, suggesting it had more potential for archaeological features than the other trenches. However no archaeological features were uncovered in this trench.

7 ARCHIVE STORAGE AND CURATION

7.1 Museum

- 7.1.1 The archive resulting from the evaluation is currently held at the offices of Wessex Archaeology in Salisbury. Bedford Museum has agreed in principle to accept the archive on completion of the project, under the accession code BEDFM 2020.70. Deposition of any finds with the museum will only be carried out with the full written agreement of the landowner to transfer title of all finds to the museum.

7.2 Preparation of the archive

- 7.2.1 The archive, which includes paper records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Bedford Museum and in general following nationally recommended guidelines (SMA 1995; ClfA 2014c; Brown 2011; ADS 2013).
- 7.2.2 All archive elements are marked with both the **site and accession code**, and a full index will be prepared. The physical archive currently comprises the following:
- 01 file/document case of paper records and A3/A4 graphics;



7.3 Selection policy

7.3.1 Wessex Archaeology follows national guidelines on selection and retention (SMA 1993; Brown 2011, section 4). In accordance with these, and any specific guidance prepared by the museum, a process of selection and retention will be followed so that only those artefacts or ecofacts that are considered to have potential for future study will be retained. The selection policy will be agreed with the museum, and is fully documented in the project archive.

7.4 Security copy

7.4.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

7.5 OASIS

7.5.1 An OASIS (online access to the index of archaeological investigations) record (<http://oasis.ac.uk/pages/wiki/Main>) has been initiated, with key fields completed (Appendix 1). A .pdf version of the final report will be submitted following approval by the Archaeological Curator on behalf of the LPA. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

8 COPYRIGHT

8.1 Archive and report copyright

8.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.

8.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

8.2 Third party data copyright

8.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (eg, Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material.

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- Wessex Archaeology 2009 *Yelnow Villa, Colworth Science Park, Bedfordshire: Archaeological Evaluation and Assessment of Results*. Unpublished report, ref 68738.01
- Wessex Archaeology 2020a *Colworth Park, Sharnbrook Archaeological Desk-Based Assessment* Unpublished client report ref 238600.01
- Wessex Archaeology 2020b *Written Scheme of Investigation for Archaeological Evaluation* Unpublished client report ref 238602.01



APPENDICES

Appendix 1 Trench summaries

NGR coordinates and OD heights taken at centre of each trench; depth bgl = below ground level

Trench No 1		Length 19.5 m	Width 2.30 m	Depth 1.08 m
Easting 497785		Northing 260237		70.3m OD
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL (m)
101		Topsoil	Dark greyish brown silty clay loam. Soft compaction. Common fine rooting. Moderate sub-rounded and sub-angular stones ≤ 30 mm, some CBM. Clear to fairly clear horizon below.	0.0-0.30
102		Made ground	Dark greyish brown silty clay. Very common sub-rounded and sub-angular stones ≤ 30 mm, moderate CBM (mostly tile fragments). Friable compaction. Common fine rooting. Clear horizon above, daily clear below.	0.20-0.47
103		Made ground	Light greyish brown sandy silt. Very abundant gravel ≤ 20 mm. Rare rooting. Clear horizon above and below.	0.33-0.58
104		Made ground	Pale silty clay. Tight compaction. Moderate sub-rounded and sub-angular stone ≤ 40 mm, some CBM. Clear horizon above and below.	0.51-0.65
105		Natural	Mid reddish brown clay. Tight compaction, fairly homogeneous. Contains pale mudstone flecks. This natural disturbed by made ground above. Clear horizon above and below.	0.62-0.82
106		Natural	Light yellowish brown clay. Common sub-angular limestone ≤ 300 mm. Very tightly compacted homogeneous layer. Clear horizon above.	0.76+
107		Made ground	Pale silty sand. Large fragments of stones and CBM that are tightly compacted. Clear horizon above and below. Possibly remnants of yard or similar associated to a previous building just southern side of the trial trench.	0.30-0.66



Trench No 1		Length 19.5 m	Width 2.30 m	Depth 1.08 m
Easting 497785		Northing 260237		70.3m OD
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL (m)
108		Bedding?	Mid reddish brown clay. Fairly homogeneous with rare sub-angular stone $\leq 30\text{mm}$. Tight compaction. Clear horizon above and below.	0.60-0.86
109		Natural	Mid reddish brown silty sand. Moderate compaction. Contains pale flecks of mudstone and patches of blueish grey clay. Clear horizon above.	0.80+
Blank. In the section several made ground layers visible that are most likely derived from the demolition of the surrounding buildings and levelling the landscape for green area. Natural varied from pale clay with gravel/mudstone inclusions to mid brown sandy silt and mid brown clay. In many places the natural was disturbed by building and demolition activities. Heavy truncation and disturbances visible in the trial trench.				

Trench No 3		Length 22.3 m	Width 2 m	Depth 0.70 m
Easting 497702		Northing 260172		73.6m OD
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL (m)
301		Topsoil	Dark greyish brown silty clay loam. Friable compaction. Moderate sub-rounded and sub-angular stones $\leq 20\text{mm}$. Common fine rooting. Homogeneous layer. Somewhat diffuse horizon with subsoil.	0.0-0.15
302		Subsoil	Mid greyish brown silty clay. Tight compaction. Sparse sub-angular and sub-rounded stones $\leq 30\text{mm}$. Sparse fine rooting. Very homogeneous layer. Somewhat diffuse horizon with topsoil but fairly clear with natural.	0.15-0.45
303		Natural	Mid brown clay. Tight compaction. Moderate gravel $\leq 30\text{mm}$. Some rooting in northern part from nearby tree. Fairly clear horizon above. In the southern end of trial trench natural is light yellowish brown clay with large gravel inclusions $\leq 60\text{mm}$.	0.40+
Blank trench. In the northern part two parallel and WNW-ESE aligned land drains. The other had ceramic pipe, the other was not revealed. In the southern part of the trench there was NE-SW aligned waste pipe. In the southern side of this pipe the natural was pale clay with larger gravel inclusions and northern side of the same pipe natural mid brown clay with small gravel inclusions.				



Trench No 4		Length 22.5 m		Width 2 m		Depth 0.58 m	
Easting 497702			Northing 260102			73m OD	
Context Number	Fill Of/Filled With	Interpretative Category	Description			Depth BGL (m)	
401		Pavement	Tarmac.			0.0-0.14	
402		Bedding	Dark brown sand. Fairly fine grained, very homogeneous and sterile. Tight compaction. Clear horizon below.			0.14-0.20	
403		Made ground	Light greyish brown silty sand with demolition rubble (mortar, stones, CBM). Tight compaction but friable. Clear horizon above and below.			0.20-0.36	
404		Disturbed natural	Light brown clay that is heavily stained black / blueish. Contains pieces of tarmac, moderate stones 30 mm, and some sand. Disturbed and discoloured. Clear horizon above and below.			0.36-0.43	
405		Natural	Light / mid reddish brown clay. Very tightly compacted. Very common sub-rounded and sub-angular mudstone fragments ≤ 120 mm. Contains also larger patches of clay that has sparse mudstone inclusions. See jog. 022-023.			0.43+	
Blank. Heavy truncation and disturbances visible in the trial trench. A slot was put through a linear geology (see jpg 022-23) to test whether it is a man-made. The slot proved that the feature was natural hollow filled with clay with sparse mudstone inclusions thus not man-made. Similar geological features throughout the trial trench, albeit more irregular in shape.							

Trench No 5		Length 21.2 m		Width 2 m		Depth 0.58 m	
Easting 497754			Northing 260112			70.8m OD	
Context Number	Fill Of/Filled With	Interpretative Category	Description			Depth BGL (m)	
501		Pavement	Tarmac.			0.0-0.08	
502		Bedding	Light greyish brown sand. Tight compaction. Fairly fine grained, very homogeneous. Clear horizon above and below.			0.08-0.12	
503		Structure	Concrete.			0.12-0.22	
504		Bedding	Blackish grey clay (possibly contaminated by tarmac derived substance). Tight compaction. Rare sub-rounded stone ≤ 30 mm. Clear horizon above and below.			0.19-0.30	
505		Made ground	Mid reddish brown sandy silt. Tight but friable compaction. Common sub-angular stones ≤ 60 mm.			0.30-0.40	



Trench No 5		Length 21.2 m	Width 2 m	Depth 0.58 m
Easting 497754		Northing 260112		70.8m OD
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL (m)
506		Natural	Light yellowish brown with grey hue, clay with very common mudstone inclusions ≤80mm. Tight compaction. Clear horizon above.	0.35+
507		Bedding	Black coarse gravel (loose tarmac, not compressed). Friable. Clear horizon above and below.	0.08-0.18
508		Bedding	Light brown sand. Tight compaction. sub-rounded gravel inclusions ≤20mm. Clear horizon above and below.	0.15-0.22
509		Structure	Concrete. Bricks and stones imbedded. Demolition rubble.	0.19-0.37
510		Made ground	Light greyish brown sandy clay. Common sub-rounded and sub-angular stones ≤60mm. Tight compaction with looser sandy patches. Clear horizon above and below.	0.33-0.46

Blank. Heavily disturbed and truncated. Roughly in the mid part W-E aligned concrete culvert. On its northern side redeposited natural that most likely part of instalment of the culvert. In the northern part N-S aligned French land drain (filled with stone pebbles) that goes under redeposited natural. The drain appear on the southern side of the culvert and turns towards E. Two representational sections were made to highlight the heterogeneous nature of layers. Layers (502)-(505) are northern part of the trench (SL501A) and (507)-(510) are southern part of the trench (SL501B). Tarmac and natural the same throughout.

Trench No 6		Length 18.8 m	Width 2 m	Depth 0.88 m
Easting 497789		Northing 260130		70.1m OD
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL (m)
601		Topsoil	Dark greyish brown silty clay loam. Moderate compaction, friable. Common fine rooting. Moderate sub-rounded stones ≤30mm. Clear horizon below.	0.0-0.25
602		Redeposited natural	Light yellowish brown with grey hue, clay with mudstone and flint inclusions ≤50mm. Amongst the redeposited natural there is large patches of sand, demolition rubble (mortar, brick, metal wires, wood). From loose to tight compaction. Also thickness of the layer varies from 0.3m to 0.15 m. Clear horizon above and below	0.25-0.40



Trench No 6		Length 18.8 m	Width 2 m	Depth 0.88 m
Easting 497789		Northing 260130		70.1m OD
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL (m)
603		Buried ground	Possibly buried topsoil. Dark greyish brown silty clay loam. Tight compaction. Sparse sub-angular and sub-rounded stone $\leq 40\text{mm}$. Thickness varies from 0.25m to 0.10m. Clear horizon above and fairly clear below.	0.40-0.65
604		Natural	Mid greyish brown clay. Rare sub-angular mudstone $\leq 30\text{mm}$. Tight compaction. Fairly clear horizon above and clear below.	0.65-0.75
605		Natural	Blueish grey clay. Very tightly compacted. Sparse sub-angular mudstone $\leq 30\text{mm}$. Clear horizon above.	0.75+
Blank. Heavily truncated throughout by earlier industrial activity on the site and northern part disturbed by SE-NW aligned concrete culvert. Below the topsoil there was layer of mixed deposits that was mostly redeposited natural but had large patches of demolition rubble. This layer most likely for levelling and landscaping. Natural patchy, consisting of light yellowish brown clay with mudstone inclusions (concentrated to northern part), mid brown clay and strands of blueish grey clay (in sketch plan as geology).				



Appendix 2 OASIS record

OASIS ID: wessexar1-410198

Project details

Project name	Colworth Park, Sharnbrook, Bedford
Short description of the project	Wessex Archaeology has been commissioned by 2110 Consult on behalf of AG Colworth Park B.V., to undertake an archaeological evaluation of a 2.8 ha parcel of land located in Colworth Park, Sharnbrook, Bedfordshire, MK44 1LZ. The evaluation area is centred on NGR 497755, 260169 (Fig. 1). The evaluation took place from 23rd November 2020 to 27th November 2020. The evaluation comprised five evaluation trenches, measuring between 18 m and 23 m long by approximately 2 m across. Trench 2 was proposed but not excavated, due to its proximity to services and vegetation. The remaining trenches exposed layers of made ground associated with the demolition of previous structures on the site. One natural feature was excavated but no archaeological features were uncovered.
Project dates	Start: 23-11-2020 End: 27-11-2020
Previous/future work	No / Not known
Any associated project reference codes	BEDFM 2020.70 - Museum accession ID
Any associated project reference codes	238602 - Contracting Unit No.
Type of project	Field evaluation
Current Land use	Other 15 - Other
Methods & techniques	""Sample Trenches""
Development type	Commercial Development
Prompt	Planning condition
Position in the planning process	Not known / Not recorded

Project location

Country	England
Site location	BEDFORDSHIRE BEDFORD BEDFORD Colworth Park, Sharnbrook
Postcode	MK44 1LQ
Study area	2.8 Hectares
Site coordinates	SP 97755 60169 52.230627361781 -0.56850700051 52 13 50 N 000 34 06 W Point

Project creators



Name of Organisation	Wessex Archaeology
Project brief originator	Bedford Borough Council
Project design originator	Wessex Archaeology
Project director/manager	Ruth Panes
Project supervisor	Darryl Freer
Type of sponsor/funding body	Developer
Name of sponsor/funding body	AG Colworth Park B.V.

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Bedford Museum
Digital Media available	"Images raster / digital photography", "Survey", "Text"
Paper Archive recipient	Bedford Museum
Paper Media available	"Section", "Unpublished Text"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Colworth Park, Sharnbrook, Bedford: Archaeological Evaluation
Author(s)/Editor(s)	Capps, R.
Other bibliographic details	unpublished client report ref. 238602.02
Date	2020
Issuer or publisher	Wessex Archaeology
Place of issue or publication	Salisbury
Description	A4 bound booklet








Appendix 3: Ground Investigation Test Pit Logs and Locations

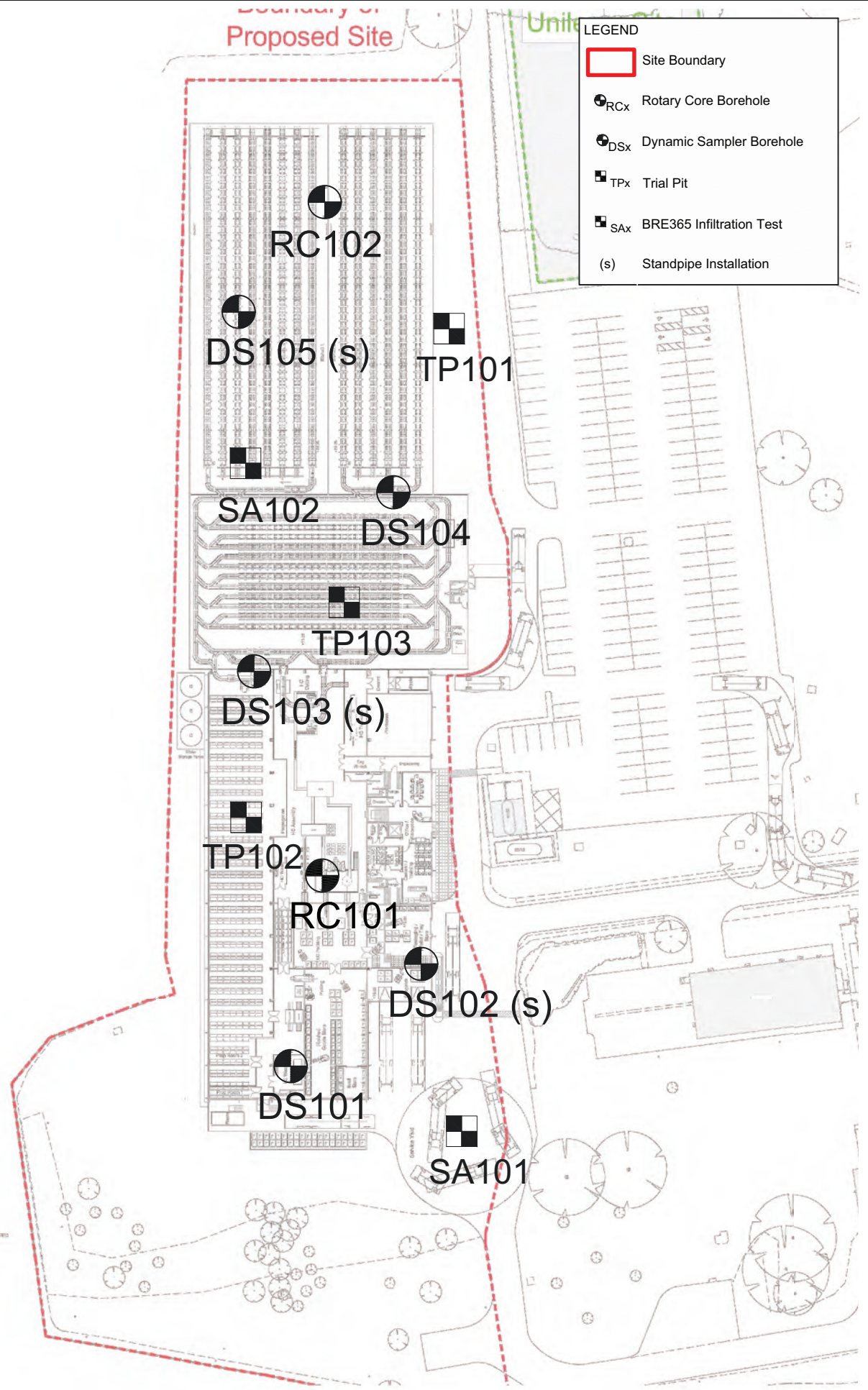
(Deltasimons 2020a and 2020b)



Boundary of Proposed Site

LEGEND

-  Site Boundary
-  RCx Rotary Core Borehole
-  DSx Dynamic Sampler Borehole
-  TPx Trial Pit
-  SAx BRE365 Infiltration Test
- (s) Standpipe Installation



Client Provided Plan





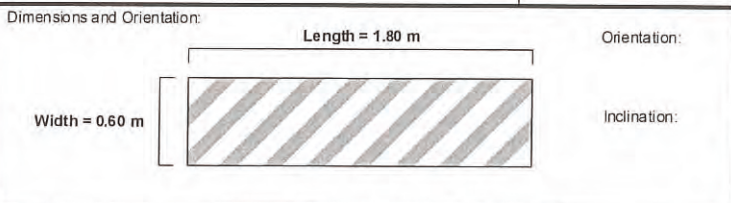
TITLE:
Approximate Intrusive Location Plan
H2O-Ganics
Colworth Park

DRAWN BY: JR	SCALE: Not to Scale
CHECKED BY: PH	REVISION: 1
DATE: 4th September 2020	

PROJECT NO: 20-1141.01
FIGURE NO: 2

Trial Pit Log



Description of Strata	Legend	Strata Depth (m)	Reduced Level (mAOD)	Water Strike (m)	Sample Details		Test Details	
					Depth (m)	Type Ref	Depth (m)	Results
MADE GROUND: Firm dark brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse flint, limestone and brick. (TOPSOIL)		0.20	73.32		0.10 - 0.15	ES		
MADE GROUND: Dark brown gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded fine to coarse brick, concrete, wire and metal. Rare brick and concrete cobbles.		0.50	73.02		0.30 - 0.35	ES		
Trial pit complete at 0.50 m bgl								

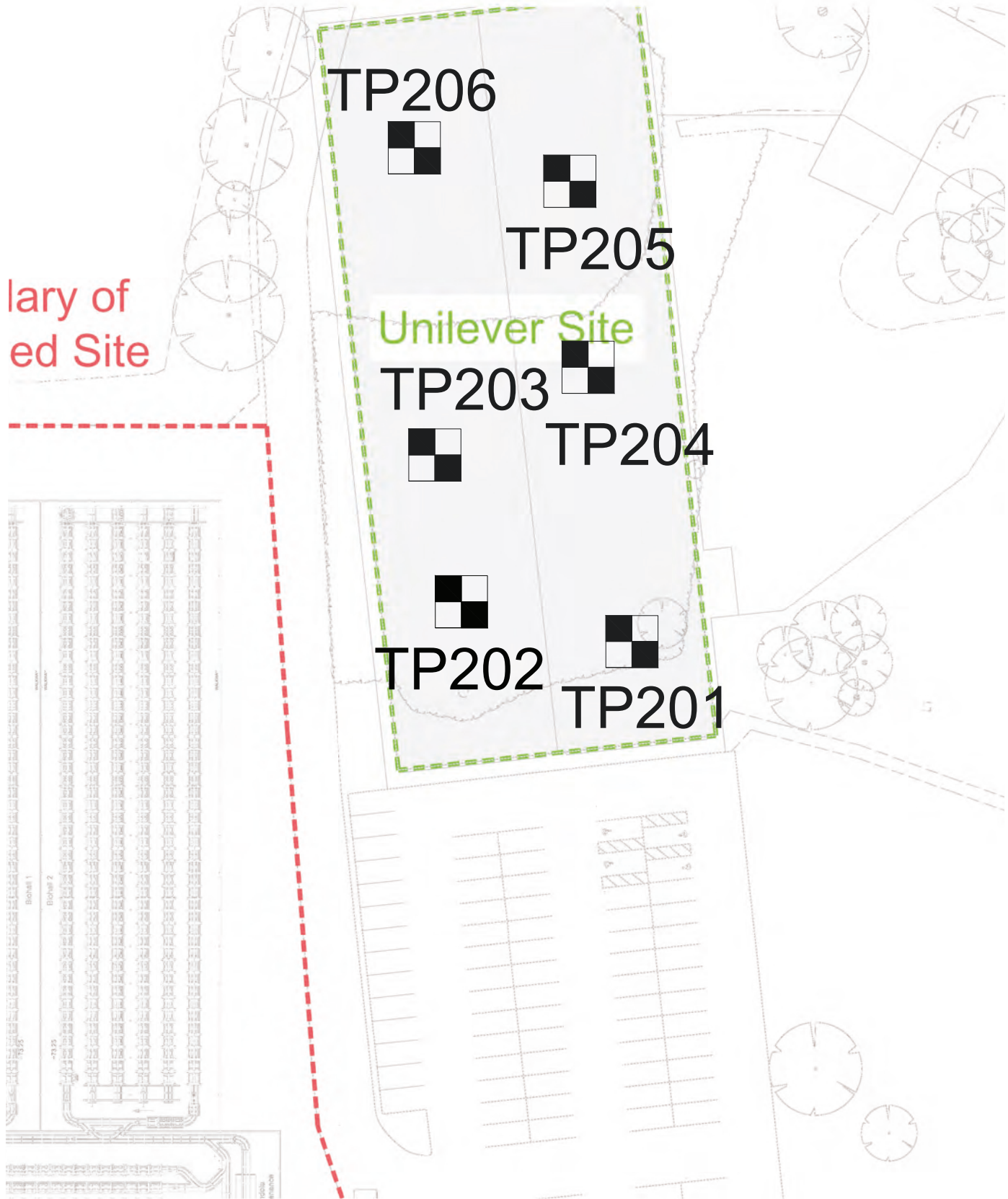


Remarks:
1. Engineer verified logged in general accordance to BS 5930:2015.2. Area CAT scanned prior to excavation.3. Brick masonry noted along the full extent of the eastern and western pit sides. Services noted within the pit, no damage caused, pit terminated at 0.50 m bgl. 4. Trial pit remained dry upon completion.5. Trial pit remained stable upon completion.



LEGEND

-  Site Boundary
-  TPx Trial Pit



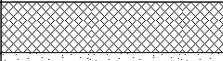
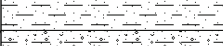
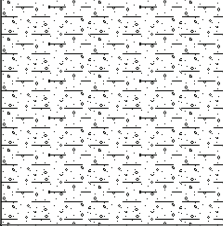
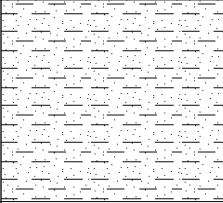
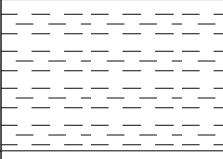
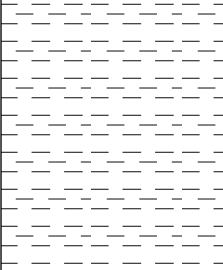

Client Provided Plan

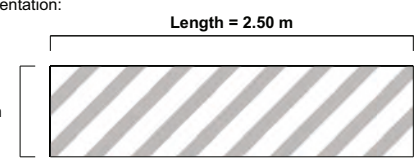


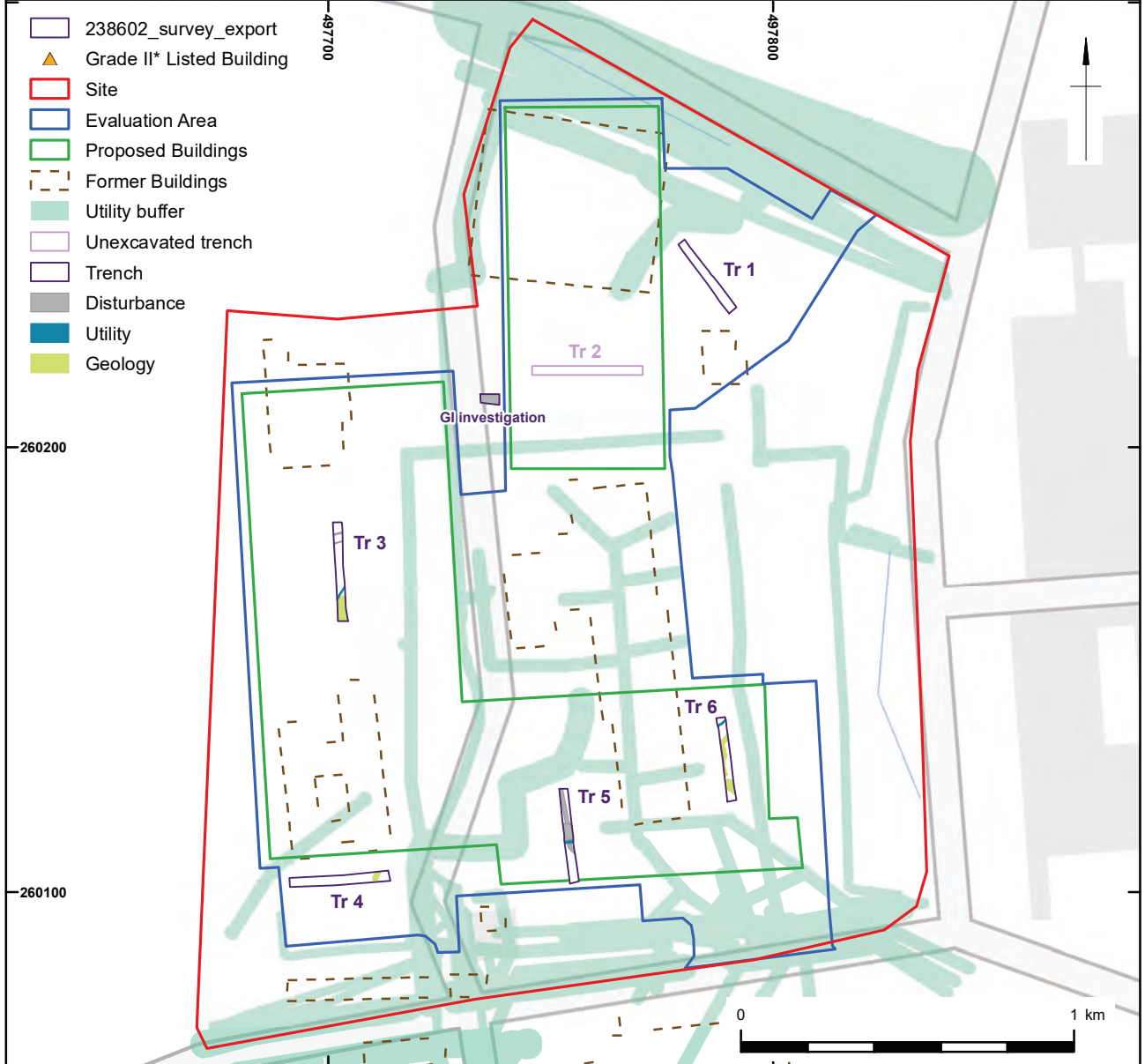
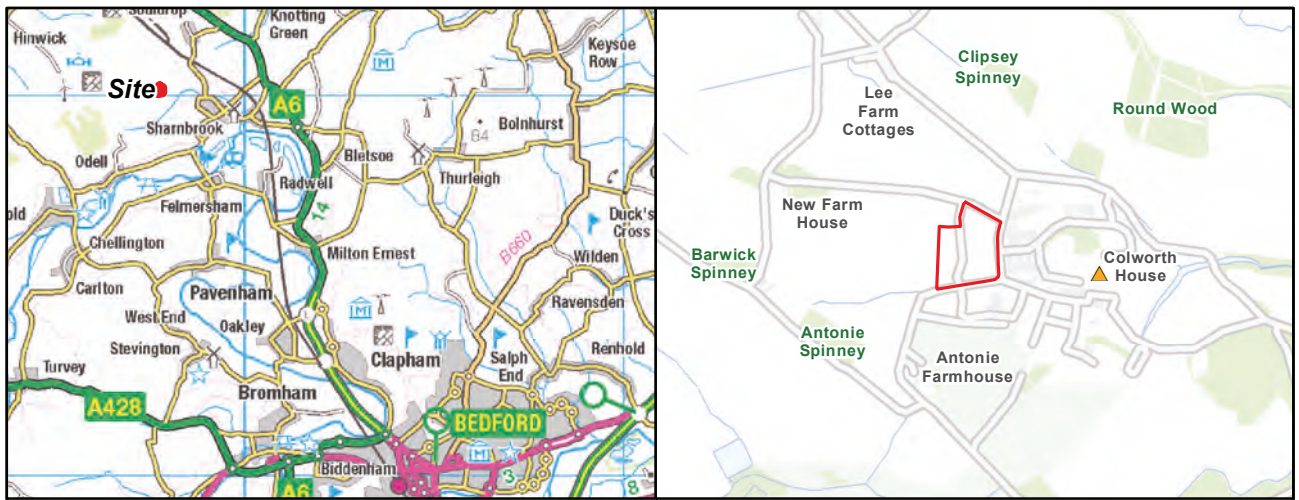
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Approximate Intrusive Location Plan
Unilever
Colworth Park


DRAWN BY: JR	SCALE: Not to Scale
CHECKED BY: PH	REVISION: 1
DATE: 16th September 2020	

PROJECT NO: 20-1141.01
FIGURE NO: 2

Description of Strata	Legend	Strata Depth (m)	Reduced Level (mAOD)	Water Strike (m)	Sample Details		Test Details	
					Depth (m)	Type Ref	Depth (m)	Results
MADE GROUND: Firm dark brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse flint, limestone and brick. (TOPSOIL)		0.20	72.22		0.50 - 0.70	B		
Firm orangish brown sandy CLAY. Sand is fine to coarse. (OADBY MEMBER)		0.35	72.07					
Soft light orangish brown sandy very gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular fine to coarse limestone. (OADBY MEMBER)		1.30	71.12					
Firm grey mottled orange slightly sandy CLAY. Sand is fine to coarse. Fossil shell fragments throughout. (KELLAWAYS CLAY MEMBER)		2.10	70.32		1.50 - 1.55	D		
Firm locally stiff dark grey mottled orange and red CLAY. (KELLAWAYS CLAY MEMBER)		2.70	69.72					
Stiff becoming very stiff with depth bluish grey CLAY. (KELLAWAYS CLAY MEMBER)					2.80 - 2.85	D	2.50	HV=74 kPa
							2.50	HV=82 kPa
							2.50	HV=84 kPa
Occasional sub-angular fine to medium mudstone gravel.		4.00	68.42				3.00	HV=82 kPa
							3.00	HV=82 kPa
							3.00	HV=90 kPa
Trial pit complete at 4.00 m bgl.								

Dimensions and Orientation: 		Orientation: Inclination:	Remarks: 1. Engineer verified logged in general accordance to BS 5930:2015.2. Area CAT scanned prior to excavation.3. Trial pit remained dry upon completion.4. Trial pit remained stable upon completion.
Coordinates: E497739.11 N260208.50	Elevation (mAOD): 72.42	Excavated By: P. C Lavin	Plant Used: JCB 3CX Logged: JR Checked: PH Approved: PH Scale: 1:30



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	Scale:	1:2,000 at A4	Illustrator:	NB/KJF
	Path:	X:\PROJECTS\238602\GIS\FigsMXD\Eval		

Site location and trench plan

Figure 1



Plate 1: South-west facing representative section at north-west end of Trench 1



Plate 2: South-west facing representative section at south-east end of Trench 1


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	Scale:	Not to scale	Illustrator:	KJF
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Plate 3: East facing representative section of Trench 3



Plate 4: Trench 4 (view from the west)


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Plate 5: South facing representative section of Trench 4



Plate 6: South-east facing section of natural feature in Trench 4 (view from the south-east)


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Plate 7: West facing representative section of Trench 5

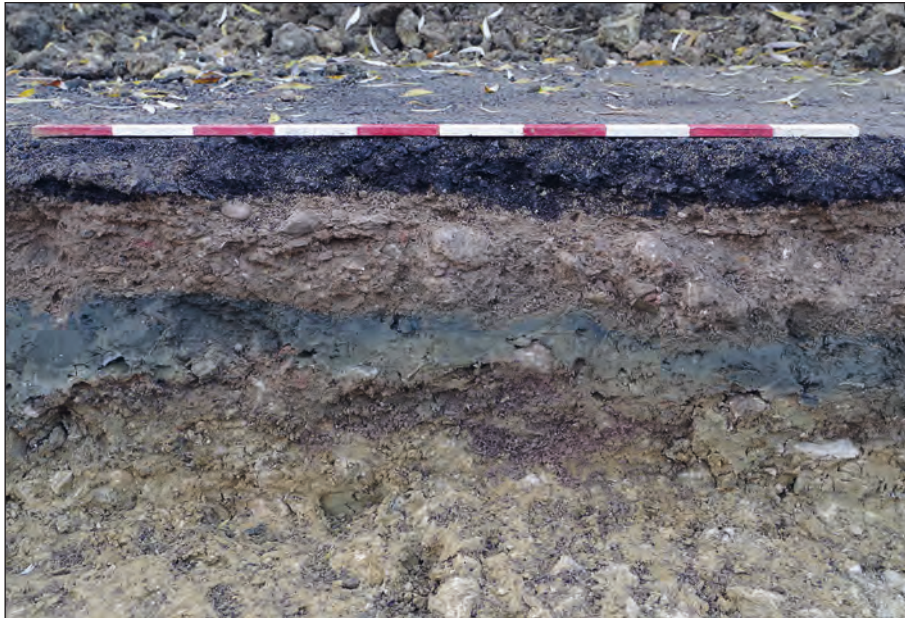


Plate 8: East facing representative section of Trench 5



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Plate 9: Trench 5 (view from the south)



Plate 10: Trench 6 (view from the south)

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