

**Archaeological Investigations on Land at The Cedars, 21 Bond Gardens,
Wallington, SM6 7LW**

Site Code: BOND/EV/17

NGR Site Centre: 529325 164939

Planning Application Number: 2016/74658/FUL

Museum Accession Number: TBC



Skillcrown Homes Limited

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SWAT ARCHAEOLOGY

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Summary

Swale & Thames Survey Company (SWAT Archaeology) were commissioned by Skillcrown Homes Limited to undertake an archaeological investigation, comprising an evaluation and a watching brief, on land at The Cedars, 21 Bond Gardens, Wallington, SM6 7LW. The archaeological works were monitored by the Greater London Archaeology Advisory Service.

The Archaeological Evaluation consisted of six trenches, which encountered a common stratigraphic sequence across the majority of the site comprising topsoil overlying a redeposited levelling layer, which sealed former topsoil/subsoil/natural sequence. Within the central area of the site, natural geological sequences survived at a higher level. The presence of the 'levelling' or 'formation' layer within the evaluation trenches around the periphery of the new building suggests that the site had previously undergone a phase of landscaping and/or levelling. Within Trench 1, Trench 5 and Trench 6, evidence for the presence of a former topsoil layer provided an indication that the original ground level may have been slightly lower prior to the construction of the extant buildings. The demolition of the original mid-19th century Hamilton Rectory building in the 1950's was followed by the reconstruction of 'The Cedars' and a new domestic wing, during which time the land had been raised so that a level construction platform was created.

The presence of surviving buried topsoil and subsoil around the periphery of the site would suggest that preservation conditions within these are relative good. Despite this, no archaeological finds or features were present within any of the evaluation trenches, although it should be stated that only two of the trenches fully exposed the natural levels. It is therefore suggested that the development had a low/negligible impact on archaeological remains.

Further archaeological mitigation, should it be necessary, will need to be determined in consultation with the Local Planning Authority and the Greater London Archaeology Advisory Service.

Archaeological Investigations on Land at The Cedars, 21 Bond Gardens,

Wallington, SM6 7LW

NGR Site Centre: 529325 164939

Site Code: BOND/EV/17

1 INTRODUCTION

1.1 Project Background

1.1.1 Swale & Thames Survey Company (SWAT Archaeology) were commissioned by Skillcrown Homes Limited to undertake an archaeological evaluation on land at The Cedars, 21 Bond Gardens, Wallington, SM6 7LW (Figure 1). A planning application (2016/74658/FUL) has been submitted to London Borough of Sutton Planning Department, Sutton Council (SC) for the demolition of existing buildings and the erection of a part one storey part three storey building, comprising twenty-three 1-bedroomed affordable flats with communal room, cycle and scooter store, refuse and recycling facilities together with amenity space and thirteen car parking spaces and landscaping.

1.1.2 The Greater London Archaeology Advisory Service (GLAAS), who provide an archaeological advisory service to Sutton Council, recommended that an archaeological investigation took place in advance of any development work. This recommendation was subsequently added as a Condition to the planning approval, which stated that;

'No demolition or development shall take place until a stage 1 written scheme of investigation (WSI) has been submitted to and approved by the local planning authority in writing. For land that is included within the WSI, no demolition or development shall take place other than in accordance with the agreed WSI, and the programme and methodology of site evaluation and the nomination of a competent person(s) or organisation to undertake the agreed works. If heritage assets of archaeological interest are identified by stage 1 then for those parts of the site which have archaeological interest a stage 2 WSI shall be submitted to and approved by the local planning authority in writing. For land that is included within the stage 2 WSI, no demolition/development shall take place other than in accordance with the agreed stage 2 WSI which shall include: A. The statement of significance and research objectives, the programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works B. The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the stage 2 WSI.'

Reason: Heritage assets of archaeological interest may survive on the site. The planning authority wishes to secure the provision of appropriate archaeological investigation, including the publication of results, in accordance with Section 12 of the NPPF.'

(2016/74658/FUL, Condition 4, 28/09/2016)

1.1.3 The archaeological work was undertaken in accordance with a Written Scheme of Investigation (SWAT Archaeology 2016), which was agreed in advance of the fieldwork with Historic England's (GLAAS). A copy of the Specification is provided in Appendix 3. All works were carried out in accordance with the relevant guidance given in the Chartered Institute for Archaeologist's *Standard and Guidance for Archaeological Field Evaluation* (CIfA 2014).

1.1.4 The fieldwork took place between November 2016 and October 2017 and comprised the machine excavation of six trenches of varying lengths; the shortest length measuring 7.30m and the longest 22.81m with each measuring 1.8m wide. Following the evaluation, a Watching Brief was carried out during the excavation of foundation trenches associated with the proposed development. This report documents the results of the evaluation and watching brief, and provides an assessment of the archaeological results recorded.

1.2 Site Description and Topography

1.2.1 The site is centred on NGR 529325 164939, within a suburban landscape in south west London between Wallington and Beddington (Figure 1).

1.2.2 Prior to 1965, the site was located in the Municipal Borough of Beddington and Wallington, in northeast Surrey. The site is polygonal in shape and set within the southeast area formed by Bond Gardens Street. It is bounded by the late 1950's housing development with the buildings located to the south, the northeast and the west of the project area. The access is made through Bond Gardens street which form a U shape area located south of Croydon Road and west of Rectory Lane. The landscape in this area is sloping down toward the river Wandle from a string of hills running east – west from Guildford to Rochester. The site stands between the southern bank of the river Wandle and the break of slope formed by these hills. The site is generally flat and lays between c.35.5m aOD and c.35.2m aOD from the south east to the north following the gentle slope of the hills.

1.2.3 The British Geological Survey website shows the site to be located on a bedrock of White Chalk Subgroup, with superficial River Terrace Deposits of Sand and Gravel (undifferentiated).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The development site is in an Area of Archaeological Potential, details of which have been sourced by the Greater London HER team at gher@historicengland.org.uk

2.1.2 The development site lies within the Beddington Archaeological Priority Area which defines the area of the Saxon and Medieval settlement of Beddington. The submitted Archaeological Desk Based Assessment (L-P Archaeology 2016) shows that the site has a moderate to high archaeological potential, particularly for prehistoric artefacts and features, and the remains of a mid-19th century Hamilton Rectory building.

3 AIMS AND OBJECTIVES

3.1 General Aims

3.1.1 The aims of the archaeological fieldwork, as set out in the Specification (Appendix 3) were adhered to;

- i. The principle objective of the archaeological evaluation was to establish the presence or absence of any elements of the archaeological resource, both artefacts and ecofacts of archaeological interest across the area of the development.
- ii. To ascertain the extent, depth below ground surface, depth of deposit if possible, character, date and quality of any such archaeological remains by limited sample excavation.
- iii. To determine the state of preservation and importance of the archaeological resource if present and to assess the past impacts on the site, and pay particular attention to the character, height/depth below ground level, condition, date and significance of any archaeological deposits.
- iv. The opportunity was also taken, during the course of the evaluation, to place and assess any archaeology revealed within the context of other recent archaeological investigations in the immediate area and within the setting of the local landscape and topography.
- v. In general, the work was to ensure compliance with the archaeological requirement from the GLAAS Archaeological Officer, that an archaeological evaluation to take place as a planning requirement, and to publish the results either on line, or through OASIS and/or in a local journal.

4 METHODOLOGY

4.1 Introduction

4.1.1 All fieldwork was conducted in accordance with the methodology set out in the SWAT Archaeology Specification (2017) and carried out in compliance with the standards outlined in the Chartered Institute for Archaeologists' Standards Guidance for Archaeological Evaluations (CIfA 2014).

4.2 Fieldwork

4.2.1 A total of five evaluation trenches were proposed within the extent of the Site (Figure 2) which were excavated in a phased approach due to access on site. An additional trench, Trench 6, was required as a contingency. In addition, a watching brief was carried out during the excavation of foundation trenches associated with the proposed development (See Figure 2). This approach, as detailed in Table 1 below, was agreed with GLAAS.

<i>Date</i>	<i>Task</i>	<i>Staff</i>
22-11-16	Excavation of evaluation Trenches 1-4	PC +2
10-05-17 and 11-05-17	Excavation of evaluation Trench 5	PC
25-10-17	Trench 6	PC +2

Table 1 Archaeological Attendance

4.2.2 Each trench location was initially scanned for surface finds prior to excavation. Excavation was carried out using a 360° mechanical excavator fitted with a toothless ditching bucket, removing the overburden to the top of the first recognisable archaeological horizon, under the constant supervision of an experienced archaeologist.

4.2.3 Trenches were subsequently hand-cleaned, as required, in order to reveal features in plan and carefully selected cross-sections through the features were excavated to enable sufficient information about form, development date and stratigraphic relationships to be recorded without prejudice to more extensive investigations, should these prove to be necessary. All archaeological work was carried out in accordance with GLAAS and CIfA standards and guidance. A complete photographic record was maintained on site that included working shots; during mechanical excavation, following archaeological investigations and during back filling.

4.3 Recording

- 4.3.1 A complete drawn record of the evaluation trenches comprising both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections) was undertaken. The plans and sections were annotated with coordinates and aOD heights.
- 4.3.2 Photographs were taken as appropriate providing a record of excavated features and deposits, along with images of the overall trench to illustrate their location and context. The record also includes images of the site overall. The photographic record comprises digital photography. A photographic register of all photographs taken is contained within the project archive.
- 4.3.3 A single context recording system was used to record the deposits with context recording numbers (CRN) relating to the associated trench number, i.e. 100 would equate to Trench 1, 200 would equate to Trench 2, etc. Context numbers were assigned to all deposits for recording purposes; these are used in the report.

5 RESULTS

5.1 Introduction

- 5.1.1 This section presents the results of the Archaeological Evaluation and Watching Brief. Detailed descriptions of the contexts recorded are included in Appendix 2.
- 5.1.2 A total of six trenches were mechanically excavated under archaeological supervision. No archaeological features or finds were recorded within the trenches.
- 5.1.3 Figure 1 and Figure 2 presents the site and the trench locations and Figures 3-8 provide trench plans and watching brief locations. Representative trench sections are presented on Figure 9 and Figure 10. Plates 1-17 provide photographic images of a selection of the site and the evaluation trenches.

5.2 Stratigraphic Sequence

- 5.2.1 Overall, a standard deposit sequence, comprising topsoil overlaying a landscaping layer that sealed a former topsoil. Below this, subsoil was present, albeit intermittently across the site, overlying natural sands and gravel. Despite the excavation of deeper test pits, clean natural deposits were only recorded within two of the trenches, although it is suggested (below) that they survive across the site. This was confirmed during a watching brief carried out during the subsequent excavation of house foundations.

5.2.2 The topsoil consisted of firm dark grey silt clay with moderate rooting. Directly below, the layer of redeposited dark brown grey clay silt with occasional demolition rubble, mortar and chalk flecks was present and provided a clear horizon with a former sequence comprising topsoil, subsoil and natural sand/gravel natural geology (see Appendix 2 and individual descriptions below).

5.3 Archaeological Results

Trench 1 (Figure 4 & Figure 5)

5.3.1 Trench 1 was located within the far south-eastern extent of the site, on an east-west orientation and measured 14.31m in length with a maximum depth of 1.05m (Plates 1-5). The presence of three live modern service trenches within this trench prevented full excavation.

5.3.2 The stratigraphic sequence comprised topsoil (101) overlying a layer of redeposited brown/grey clay silt with moderate crushed demolition debris (102). Below this, a dark grey brown organic silt clay represented the former topsoil on the site (104), which sealed a red brown subsoil (105) at a depth of approximately 1.19m (36.6m aOD) (Figure 9, Section 1). In order to comply with Health & Safety protocols the test pit ceased at a depth of 1.2m. At this depth small patches of yellow orange sand started to emerge (Plate 4 and Plate 5) suggesting that natural levels were present just beyond the level of excavation.

5.3.3 No archaeological finds or features were recorded within this trench.

Trench 2 (Figure 4)

5.3.4 Trench 2 was excavated on a north-south alignment, measured 8.22m in length, and contained a single modern service trench (Figure 4). The topsoil (201) sealed redeposited layer (203) which coincides with layer (102) recorded in Trench 1 (Figure 9, Section 2 and Plate 6). The topsoil overlay a red brown silt clay subsoil (204). On the request of Historic England (Mark Stevenson *pers comm*) Test Pit B was excavated at the northern extent of the trench to a depth of 1.2m (Plate 7). The test pit further defined the subsoil, which was at least 0.70m in thickness, but no natural geology was reached. As recorded in Trench 1, the test pit ceased at a depth of 1.2m where small patches of yellow orange sand started to emerge suggesting that natural levels were present just beyond the level of excavation.

5.3.5 No archaeological finds or features were recorded within this trench.

Trench 3 (Figure 5)

5.3.6 Trench 3 was excavated adjacent to the southern boundary of the site. The presence of visible services (drainage inspection chambers) on the ground surface meant the trench was excavated in three sections over a total length of 22.81m. Unfortunately, the presence of additional services within each section of this trench meant that full depth could not be reached (Plates 8-10). That

said, it was possible to record the presence of the levelling layer (303 and 304) across the entire trench at a depth of 0.45m below the existing ground surface (c. 36.4m aOD). Natural geology was not exposed within this trench.

5.3.7 No archaeological finds or features were recorded within this trench.

Trench 4 (Figure 6)

5.3.8 Trench 4 was located at the northern extent of the site and was orientated north-south (Plate 15-16). The stratigraphic sequence (Figure 9, Section 4) recorded comprised topsoil (401) overlaying subsoil consisting of a soft red brown silty clay with occasional brick fragments (402), which sealed the natural geology (403) at a depth of approximately 0.9m below the existing ground level (c. 36.3m aOD). The relatively truncated natural geology was exposed along the full length of this trench (Plate 15-16).

5.3.9 No archaeological finds or features were recorded within this trench.

Trench 5 (Figure 4)

5.3.10 Trench 5 was excavated in the south-eastern extent of the site, broadly on a northeast-southwest orientation, and exposed natural geology (504) at a depth of 1.21m (Figure 10, Section 9). A recently deposited hardcore site formation layer (501) covered the former topsoil (502) with partial survival of the subsoil (503) (Plates 11-12).

5.3.11 No archaeological finds or features were recorded within this trench.

Trench 6 (Figure 8)

5.3.12 Trench 6 was orientated parallel to the northern boundary of the site and measured 11.3m in length with a maximum depth of 1.18m. Topsoil (601) overlay the levelling/formation layer (602) which sealed the remnants of the former topsoil (603). Below this the natural geology comprised fine silty sands (604). A single geological feature was recorded within this trench (Figure 10, Section 8). Measuring 1.02m in length, 0.85m in width and 0.2m in depth. This pit [606] contained a single fill consisting of mid brown silt clay with occasional rounded stones (607). No finds were present within this feature (Figure 10, Section 8 and Plate 14).

Watching Brief (Figure 7)

5.3.13 A watching brief was carried out during the excavation of foundation trenches (Plate 17), during which time a series of surviving natural geological deposits were recorded. Section 5 and Section 6 (Figure 9) were located within the central area of the new building (Figure 7) and both illustrate that modern redeposited hardcore (701), 0.20m in depth, directly overlay surviving geological

sand, gravel and chalk (702-705), present at a level between 35.5m aOD and 36.01m aOD. No archaeological finds or features were present within the footprint of the new foundation.

- 5.3.14 It is acknowledged that, although geological, the possibility of the 'natural' deposits detailed above may represent a large feature (Joanna Taylor *pers comm*).

6 FINDS

6.1 Introduction

- 6.1.1 The evaluation produced no finds.

7 ENVIRONMENTAL

7.1 Introduction

- 7.1.1 No environmental samples were taken during the evaluation.

8 DISCUSSION

8.1 Archaeological Narrative

- 8.1.1 A common stratigraphic sequence was recognised across the majority of the site comprising topsoil overlying a redeposited levelling layer, which sealed the former topsoil/subsoil/natural sequence. Within the central area of the site, natural geological sequences survived at a higher level.
- 8.1.2 The presence of the 'levelling' or 'formation' layer within the evaluation trenches around the periphery of the new building suggests that the site had previously undergone a phase of landscaping and/or levelling. Within Trench 1, Trench 5 and Trench 6, evidence for the presence of a former topsoil layer (104, 502 and 603) gives an indication that the original ground level may have been slightly lower prior to the construction of the extant buildings. The demolition of the original mid-19th century Hamilton Rectory building in the 1950's was followed by the reconstruction of 'The Cedars' and a new domestic wing, during which time the land had been raised so that a level construction platform was created.
- 8.1.3 The presence of a surviving buried topsoil and subsoil around the periphery of the site would suggest that preservation conditions within these are relative good. Despite this, no archaeological finds or features were present within any of the evaluation trenches, although it should be stated that only two of the trenches fully exposed the natural levels. It is therefore suggested that the development had a low/negligible impact on archaeological remains.

8.2 Conclusions

- 8.2.1 The archaeological evaluation has been successful in fulfilling the primary aims and objectives of the Specification. The model of archaeological potential across the Site has been tested and refined, and an area of significantly low archaeological potential has been identified across the Site. Further archaeological mitigation, should it be necessary, will need to be determined in consultation with the GLAAS Archaeological Officer and local planning authority.
- 8.2.2 This evaluation has, therefore, assessed the archaeological potential of land intended for development. The results from this work will be used to aid and inform the Archaeological Officer (GLAAS) of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

9 ARCHIVE

9.1 General

- 9.1.1 The Site archive, which will include; paper records, photographic records, graphics and digital data, will be prepared following nationally recommended guidelines (SMA 1995; ClfA 2009; Brown 2011; ADS 2013).
- 9.1.2 All archive elements will be marked with the site/accession code, and a full index will be prepared. The physical archive comprises 1 file/document case of paper records & A4 graphics.
- 9.1.3 The archive is currently held at SWAT Archaeology's Faversham office under the site code BOND/EV/17. Arrangement will be made so that the full archive will be deposited for permanent storage using a predetermined Accession Number (TBC), in accordance with their guidelines set out in *Procedure for the Deposition of Archaeological Archives* (June 2015).

10 ACKNOWLEDGMENTS

- 10.1.1 SWAT would like to thank Skillcrown Homes Limited, for commissioning the project. Thanks are also extended to Mark Stevenson and Joanna Taylor of GLAAS for their advice and assistance.
- 10.1.2 Peter Cichy supervised the archaeological fieldwork; illustrations were produced by Bartek Cichy. David Britchfield (MCIfA) produced the draft text for this report, which was edited by Dr. Paul Wilkinson (MCIfA).

11 REFERENCES

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PROJECT DETAILS	
Project Name	The Cedars, 21 Bond Gardens, Wallington SM6 7LW
Short Description of the project	An archaeological evaluation comprising four evaluation trenches was carried out at the above site. No archaeology was found.
Project Dates	22 nd November 2016 -10 th -11 th May 2017 25 th October 2017
Previous/future work	No
Any associated project reference codes	BOND/EV/2016
Type of Project	Archaeological Evaluation
Site status	None
Current Land Use	Residential
Monument Type	n/a
Significant Finds	None
Investigation Type	Archaeological Evaluation
Prompt	Direction from Local Planning Authority

PROJECT LOCATION	
Country	England
Site location	Wallington in London Borough of Sutton
Postcode	SM6 7LW
Study area	980 Square metres
Site coordinates	NGR 529325 164939
Height OD	Min: 34.50maOD Max 36.50maOD

PROJECT BIBLIOGRAPHY 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Investigation of Land at The Cedars, 21 Bond Gardens, Wallingford SM6 7LW
Author (s)/Editor(s)	Wilkinson, P
Other bibliographic details	No
Date	26 th October 2017
Issuer or publisher	SWAT Archaeology
Place of issue or publication	Faversham, Kent
Description	Post Excavation Report
Entered by	Dr Paul Wilkinson (info@swatarchaeology.co.uk)
Entered on	16 th March 2017

13 APPENDIX 2 – TRENCH TABLES

Trench 1			
Dimensions: 14.31m x 1.8m			
Context	Description	Interpretation	Depth (m)
101	Relatively compact dark grey silt clay with moderate rooting	Topsoil	0.00-0.30
102	Moderately firm brown-grey silt clay with moderate crushed demolition debris	Levelling/formation	0.30-0.70
103	Dark red brown clay-sandy-silt with infrequent flint-stones and flint gravel	Subsoil	0.98-1.25
104	Dark grey brown silt clay with rooting	Former topsoil	0.70-0.98
105	Orange-grey fine to coarse sand	Natural? (Not exposed)	1.25+

Trench 2			
Dimensions: 8.22m x 1.8m			
Context	Description	Interpretation	Depth (m)
201	Relatively compact dark grey silt clay with moderate rooting	Topsoil	0.00-0.36
202	NOT USED	-	-
203	Moderately firm brown-grey silt clay with moderate crushed demolition debris	Levelling/formation	0.36-0.51
204	Dark red brown clay-sandy-silt with infrequent flint-stones and flint gravel	Subsoil	0.51-1.21

Trench 3			
Dimensions: 22.81m x 1.8m			
Context	Description	Interpretation	Depth (m)
301	Relatively compact dark grey silt clay with moderate rooting	Topsoil	0.00-0.28
302	NOT USED		
303	Dark-brown clay-sandy-silt with infrequent flint-stones, flint gravel and occasional CBM (partially exposed)	Levelling/formation	0.45+
304	Moderately firm brown-grey silt clay with moderate crushed demolition debris	Levelling/formation	0.28-0.45

Trench 4			
Dimensions: 14m x 1.8m			
Context	Description	Interpretation	Depth (m)
401	Relatively compact dark grey silt clay with moderate rooting	Topsoil	0.00-0.36
402	Moderately firm red brown silt clay with moderate crushed demolition debris	Subsoil	0.36-0.91
403	Mid orange sandy clay with infrequent flint-stones and pockets of fine sand	Natural	0.91+

Trench 5			
Dimensions: 7.3m x 1.8m			
Context	Description	Interpretation	Depth (m)
501	Modern crushed hardcore	Existing surface	0.00-0.49
502	Moderately firm brown silt clay with moderate crushed demolition debris	Former topsoil	0.49-0.61
503	Mid orange sandy clay with infrequent flint-stones and pockets of fine sand	Subsoil	0.61-1.21
504	Light yellow orange sand gravel	Natural	1.21+

Trench 6	Dimensions: 11.3m x 1.8m		
Context	Description	Interpretation	Depth (m)
601	Relatively compact dark grey silt clay with moderate rooting	Topsoil	0.00-0.30
602	Moderately firm brown silt clay with moderate crushed demolition debris	Levelling/formation	0.30-0.90
603	Mid brown sandy clay with occasional flint gravel.	Former topsoil?	0.90-1.18
604	Mid yellow orange silty sand with infrequent flint-stones and pockets of fine sand	Natural	1.18+
605	NOT USED		
606	Cut if pit filled by 605	Pit Geological feature	-
607	Mid brown silt clay with occasional rounded stones	Fill of pit 606	-

Foundation Trenches			
Context	Description	Interpretation	Depth (m)
701	Modern redeposited hardcore	Surface	0.00-0.20
702	Mid orange sand with flints and lenses of pale brown sand with chalk pebble.	Natural	0.20-0.90
703	Mid grey soft laminated sand	Natural	0.90-1.35
704	Mid red brown sand and gravel	Natural	1.35-1.45
705	Chalk	Natural	1.45-1.60+

**SPECIFICATION FOR A PROGRAMME OF ARCHAEOLOGICAL
INVESTIGATION AND ASSESSMENT OF LAND AT THE CEDARS, 21
BOND GARDENS WALLINGTON SM6 7LW**

*Council of the London Borough of Sutton Planning Application: D2016/74658/FUL
Demolition of existing dwelling and erection of a part three storey building comprising
twenty here 1-bedroomed affordable flats with communal room, cycle and scooter store,
refuse and recycling facilities together with amenity space and 13 car parking spaces.*

1 Introduction and Summary

1.1 Skillcrown Homes Ltd are currently making preparations for the development of land at 21 Bond Gardens, Wallington (Plate 1). The proposed development is to comprise the demolition of the existing building and erection of a part three storey building comprising twenty here 1-bedroomed affordable flats with communal room, cycle and scooter store, refuse and recycling facilities together with amenity space and 13 car parking spaces (Fig. 1).

A planning application for the proposed developments have been submitted to the London Borough of Sutton and subsequently granted consents with an attached condition (4) stating that:

No demolition or development shall take place until a stage 1 written scheme of investigation (WSI) has been submitted to and approved by the local planning authority in writing. For land that is included within the WSI, no demolition or development shall take place other than in accordance with the agreed WSI, and the programme and methodology of site evaluation and the nomination of a competent person(s) or organisation to undertake the agreed works. If heritage assets of archaeological interest are identified by stage 1 then for those parts of the site which have archaeological interest a stage 2 WSI shall be submitted to and approved by the local planning authority in writing. For land that is included within the stage 2 WSI, no demolition/development shall take place other than in accordance with the agreed stage 2 WSI which shall include: A. The statement of significance and research objectives, the programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works B. The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the stage 2 WSI.

1.2 In mitigation of the potential impact that the development may have on the buried archaeological resource and in accordance with the provisions of Planning Policy

Statement - Planning for the Historic Environment (2012), in particular Policy 12, and Condition of the planning consents, SWAT. Archaeology proposes to carry out an archaeological investigation to a programme of methodology undertaken in accordance with a note issued by HE GLAAS (dated 11th August 2016) where Laura O’Gormon HE Archaeological Advisor recommended that:

‘A condition is therefore recommended to require a two-stage process of archaeological investigation comprising: first, assessment to clarify the nature and extent of surviving remains, followed, if necessary, by a full investigation’.

1.3 All works will adhere to EH GLAAS Archaeology Guidance Papers (AGPs, revised 2009), in particular *AGP No 3; Standards and Practises in Archaeological Fieldwork in London*. The project will also conform to the Institute for Archaeologists (IfA) *Code of Conduct and Standard and Guidance for Archaeological Watching Briefs* (Oct 1994, revised Sept 2001 and 2014).

The archaeological works are to be monitored by HE GLASS.

1.4 The present specification seeks to provide a programme and methodology for undertaking the Archaeological Evaluation, setting out the objectives, the standards to be attained and the format for reporting through to publication. The archaeological works are being undertaken to assess the potential impact of the proposed development on any buried archaeological features and deposits that may be present within the proposed development area.

2 Archaeological Potential and Objectives

2.1 The development site is in an Area of Archaeological Potential, details of which have been sourced by the Greater London HER team at gher@historicengland.org.uk. The development site lies within the Beddington Archaeological Priority Area which defines the the area of the Saxon and Medieval settlement of Beddington. The submitted Archaeological DBA (L-P Archaeology) shows that the site has a moderate to high archaeological potential, particularly for prehistoric artefacts and features and the remains of a mid-19th century rectory.

2.2 Further details of previous discoveries and investigations within the immediate and wider area may be found in the both the Greater London HER Team and the Archaeological Desk Based Assessment Report (L-P Archaeology (January 2016) of which the current archaeological team have a copy.

2.3 The principle objective of the Archaeological Evaluation is to establish the presence or absence of any elements of the archaeological resource across the area of the proposed development site.

2.4 To ascertain the extent, depth below ground surface, depth of deposit if possible, character, date and quality of any such archaeological remains by limited sample excavation.

2.5 To determine the state of preservation and importance of the archaeological resource if present.

2.6 The opportunity will also be taken during the course of the archaeological programme to place and assess any archaeology revealed within the context of other recent archaeological investigations in the immediate area and within the setting of the local landscape and topography

2.7 Should archaeological remains be found, further archaeological investigation may be required. This work will be covered by a separate specification and not form part of the present work.

3 Methodology

3.1 In mitigation of the potential impact that the development may have on the buried archaeological resource and in accordance with the provisions of Planning Policy Statement 5 (2010) and Condition (4) of the planning consent, SWAT. Archaeology are to carry out an Archaeological Evaluation prior to the proposed development.

3.2 This specification seeks to provide a programme and methodology for undertaking this work, setting out the objectives, the standards to be attained and the format for reporting through to publication. The archaeological works are being undertaken to ensure preservation by record of archaeological deposits and features on the site where development will lead to their permanent loss.

3.3 Machine excavation of the five trenches of differing lengths from 15m by 1.8m (Fig. 1) with a contingency of up to an area equivalent of one additional trench. The excavation will be limited to the removal of topsoil/overburden to expose the uppermost archaeological deposits or the natural geological surface whichever is the higher. Following the clearance of overburden, excavation of any exposed archaeological features in all instances will be undertaken by hand. Any archaeological features exposed will be hand cleaned using a trowel, hoe or other suitable tool and any archaeological features exposed mapped, recorded and photographed. If necessary, hand recovery of cultural material will be augmented by wet or dry screening of 100-200 litre control samples through 10mm mesh. On site screening will not preclude the taking of other bulk soil samples for off-site screening.

In addition further archaeological work is required to make up the shortfall of the required initial phase of trenching with an additional trench located in the north-west corner of the site (blue trench figure 1) and archaeological control of ground reduction of the planned soak-away pit (green circle figure 1).

3.4 Archaeological features will generally only be sampled to elucidate the stratigraphic sequence and secure datable materials for assessment. Full excavation will not be undertaken at this stage. Should burials be encountered these will not be excavated.

3.5 Care will be taken not to damage archaeological deposits or structures by unnecessary excavation. In particular the underlying natural geological surfaces are not to be reduced to more clearly expose anticipated archaeological features. Within the limits of the archaeological objectives, a soil sampling programme for bulk screening, palaeo-environmental analysis, and soil micromorphology is to be undertaken if suitable deposits are identified from which data can be retrieved. The Historic England Regional Archaeological Science Advisor will be consulted on the programme.

3.6 Generally, bulk soil samples and sub-samples will be taken from the unexcavated fills of all archaeological features for bulk screening, palaeo-environmental analysis and soil micromorphology. In addition, further soil samples will be taken where required in the form of monolith samples. The stratigraphic position of such samples will be fully recorded.

3.7 A general site safety strategy will be agreed, if necessary in writing, and implemented prior to the commencement of all fieldworks, to include if necessary a risk assessment, a methods statement, safety plans and procedures for safety inspections and the reporting of accidents. Safety procedures are to follow the guidelines established by the Institute of Field Archaeologists in: *Policy statement on Health and Safety* and in the *Standards and guidance* and the practical guidance in the SCAUM manual *Health and Safety in field archaeology*.

3.8 All necessary precautions to the satisfaction of the Statutory or other Service Authorities and the landowner concerned will be taken to avoid interference with or damage to their services, and to comply with any of their Codes of Practice that may be applicable. Should any pipes, cables, ducts or other apparatus be uncovered during the archaeological works the Statutory or other Service Authorities and landowner concerned will be informed immediately and further works will cease until adequate precautions have been taken for re-instatement or protection of any apparatus.

3.9 Any water drains which may be interfered with, or cut through, will be preserved and pipes or other means be provided so as not to stop or diminish their present usage. Should any drain be uncovered appropriate measures will be provided to convey the

water and soil to a suitable outlet and every reasonable precaution taken to protect all property from damage. Temporary or permanent connections to any mains drains pipes or other services will only be made with the prior permission of the relevant Statutory Authority.

3.10 Enquiries as to the position and line of any existing services will be made. Archaeological work will not commence until the presence or otherwise of all such services has been established. The positions, depths and dimensions of all services encountered will be measured and recorded.

3.11 On completion of hand clearance the area of archaeological investigation will be enclosed with appropriate barriers to appropriate safety standards and maintenance. Appropriate hazard signs will also be displayed.

General

3.12 Appropriate security will be provided. Particular care will be taken to avoid the loss of data by unauthorized excavation for archaeological artefacts. Should security problems arise a permanent presence on the site of the investigation may be required.

3.13 Adverse weather may temporarily halt archaeological works. It may be appropriate therefore to provide cover and protection over exposed archaeological features and deposits. Time should be allowed for delays due to bad weather.

3.14 A detailed calendar for the implementation and completion of the archaeological works will be arranged between the archaeological contractor and the HE Archaeological Officer and the dates for both the commencement and completion of the archaeological investigation will be notified to the HE Archaeological Officer.

4. Recording

Notwithstanding the requirements detailed above, the following general procedures will be followed:

4.1 All structures, deposits and finds will be recorded according to accepted professional standards using appropriate recording systems. The recording systems used will be compatible with those used on other similar archaeological excavations within Greater London. The records are to be integrated into the Greater London District HER and the Museum of London Archaeological Officer will allocate site codes and archive numbers. The site archive will be prepared according to the guidelines set out in: *Management of archaeological of projects: Appendix 3* (English Heritage, 2nd edn. 1991).

4.2 All archaeological contexts are to be recorded individually on single context record sheets. A further more general record of the work, comprising a description and discussion of the archaeology is to be maintained as appropriate.

4.3 Supplementary recording systems will be compiled for investigations and samples taken for bulk screening, palaeo-environmental analysis, and soil micromorphology

4.4 A full colour photographic record of all phases of the archaeological works will be kept. The photographic digital film record, as well as the written record of the same, will comprise part of the site archive. Record photographs taken as part of the primary site archive will include a scale, north indicator and header board detailing the site code and context number. More general photography and area and feature photographs taken for publicity, educational or publication purposes may exclude these items.

4.5 More detailed information on the classes and types of records to be compiled during the course of the excavation(s) is to be found in: *Policy and Guidelines for the transfer of archaeological archives within Bexley Borough District*.

4.6 A site plan to indicate the location of the boundaries of the proposed development site and the position of archaeological areas is to be drawn at a scale of 1:100. Plans to indicate the locations of archaeological features are to be drawn to a scale of 1:50, with more detailed plans as necessary. Detailed plans should normally be drawn at a scale of 1:20 and sections at a scale of 1:10. All detailed plans and sections are to be related to the site plans.

4.7 All plans and sections will be drawn on polyester based drawing film, and each plan and/or section will be clearly labelled.

4.8 A site grid will be established across the areas subject to necessity. All field surveying will be preceded by a site visit to clarify the site specific surveying methodology, determine lines of sight and locate appropriate survey points.

4.9 All recording points will be accurately surveyed with an EDM or Total Station to a horizontal accuracy of +/- 500mm., and located to the National Grid.

4.10 A full record of levels above Ordnance Datum of archaeological features and deposits exposed and excavated will be compiled and if necessary a general contour survey of the proposed development area undertaken. Temporary benchmarks may be established, but all heights will be related to approved Ordnance Survey benchmarks. The stations closest to each individual site will be used to minimize error. All levelling to site temporary bench marks will form part of a closed loop back to the point of origin, and will close to within an error of 20mm K, where K is the distance traversed in kilometres. If the error falls outside of this limit, the traverse is to be repeated. Errors will be minimized by equalizing back sights and foresights and ensuring these are less than 100mm.

5 Assessment and Reporting

5.1 The results of the trial trench evaluation will be communicated to Skillcrown Homes Ltd, and the HE Archaeological Officer at the earliest possible opportunity. This will comprise either a brief written statement or an interim report, but will not at this stage include recommendations as to whether further work will or will not be required.

5.2 The site archive will be collated after the works, with all site drawings inked-in, and records and finds cross-referenced and ordered as an internally consistent permanent record. The site archive will comprise two elements, the documentary (written, drawn, photographic and electronic) record and the material remains recovered. A full archival indexed catalogue of the documentary site archive will be prepared.

5.3 The site archive will include all records created and artefacts and soil samples recovered during the course of the fieldwork and will be suitably marked as such to distinguish these records from those created during post-excavation analysis. No parts of the documentary site archive will be discarded. The documentary site archive will also be distinguished from records created during project management.

5.4 All soil samples and each class or type of artefacts will be clearly and suitably marked and boxed. A full archival catalogue of the material archive will be prepared.

5.5 On completion of the ordering and cataloguing, the site archive will be assessed in accordance with the principles of *Management of Research Projects in the Historic Environment : The MORPHE Project Manager's Guide* (English Heritage, 1st edn, 2006) and a programme of post-investigation analysis will be defined and agreed between Skillcrown Homes Ltd, the archaeological contractor (SWAT Archaeology), LAARC and the Council Archaeological Officer.

5.6 As a minimum the post-excavation analysis will include:

- a) the stratigraphic analysis of the results of the archaeological investigation
- b) the creation of a context matrix
- c) a written description of the stratigraphic analysis
- d) the preparation of phased site plans

5.7 The material archive will be studied and assessed by type of artefact and outline catalogues prepared including data on the quantity, identification and date of the artefacts assessed. Further conservation of artefacts will be undertaken where appropriate. In addition, appropriately qualified specialists will compile assessments of the various categories of artefacts. These assessments will include an academic justification for the retention of the material remains studied and proposals for the

dispersal of artefacts not considered worthy of preservation. Full archive cataloguing of artefacts will not be undertaken at this stage.

5.8 Sub-samples from the soil samples taken for bulk screening, palaeo-environmental analysis and soil micromorphology will be processed as part of the post-excavation analysis where this has not previously been undertaken during the evaluation. To avoid contamination and deterioration as a result of long-term storage it may prove necessary to process all soil samples. Should this prove impractical or unnecessary soil samples are to be stored under appropriate conditions. Finds recovered from bulk screening will be treated as small finds and appropriately recorded. Residues will be retained as part of the site archive. Samples taken of wooden structures or bulk materials such as metallurgical residues will also be retained. Interim summary reports on the results of the processing of soil samples will be compiled by type of artefacts and classes of biological material recovered.

5.9 Dispersal of certain classes of the material site archive, including soil samples, may be appropriate and will follow established procedures and a review of the material within the particular context of the evaluation. A detailed brief setting out the procedures for the retention and dispersal policies for samples and artefacts is to be prepared as part of the post-excavation analysis. This will follow the guidelines set out in: *Selection, retention and dispersal of archaeological collections: guidelines for use in England, Wales and Northern Ireland* (The Society of Museum Archaeologists, 1993).

5.10 On completion of the ordering of the site archive and as part of the assessment process, a field report on the work will be compiled. This will consist of a brief concise narrative with appropriate illustrations to present an overview of the results of the work undertaken by area and period. This report will be completed within two weeks of the completion of the works and submitted to Skillcrown Homes Ltd and the HE Archaeological Officer. Where significant artefacts have been recovered during the course of the works or where the archaeology recorded is complex, a summary report will be compiled.

5.11 Recommendations for further archaeological work are not to be included within the field report. The report, however, will assess the archaeological importance of any archaeology revealed during the evaluation.

5.12 Should no further archaeological works be required following the completion of the works and the completion of the post-excavation analysis, an appropriate programme of further post-excavation assessment as required will be defined and agreed in writing between Skillcrown Homes Ltd, the archaeological contractor and the HE Archaeological Officer to bring the results of the investigation to publication.

5.13 This will comprise in the first instance an assessment report that will contain as a minimum the following, together with such further work as is justified by the assessment. The post assessment will be completed within one year of the completion of the evaluation and a report submitted to Skillcrown Homes Ltd and the HE Archaeological Advisor.

a) a brief summary of the archaeology of the site

b) a description and interpretation of the archaeology and depositional history of the site and a summary list of features with additional information, including matrices, on stratigraphic relationships.

c) a table showing the classes and numbers of artefacts located and their interpretation if appropriate.

d) a catalogue and discussion of any other finds by category, the level of detail required being determined by the assessment, but with particular attention being paid to all stratified and other datable material and any finds of intrinsic or historic interest.

e) copies of the excavation location plans at 1:100, a plan of the main archaeological features at 1:50, together with more detailed plans and key section drawings, all at appropriate scales.

f) recommendations for further post-excavation work to attain publication standard.

5.14 The results of the works and the importance of any archaeology revealed and recorded during the works will determine the methodologies to be adopted in the preparation of interim field, summary and assessment reports. Should the works reveal little of archaeological importance or significance the assessment and reporting detailed above will not be required and a brief summary report only should be prepared.

5.15 Should further archaeological works be required following the completion of the archaeological evaluation, post-excavation analysis and assessment of the results of the work will be incorporated into subsequent programmes of archaeological investigations.

6 General

6.1 Any enquiries or complaints made to the archaeological contractor during the course of any phase of the fieldworks or subsequent post-excavation analysis and assessment from landowners, Statutory Authorities or the public shall be recorded in writing and forwarded immediately to the landowner. The archaeological contractor shall not enter into any written, verbal or electronic communication with landowners, Statutory Authorities or the public without the prior consent of the landowner.

6.2 All artefacts recovered during the excavation shall remain the property of the landowner. The finds may be retained by the archaeological contractor for a period not exceeding 2 years for post-excavation analysis. The artefacts are to be suitably bagged, boxed and marked in accordance with: Walker, K. *Guidelines for the preparation of excavation archives for long-term storage and conservation* (United Kingdom Institute for Conservation, Archaeology Section, 1990) and: *Standards in the museum care of archaeological collections* (Museum and Galleries Commission, 1992).

6.3 On completion of the project, the archaeological contractor is to arrange for the transfer, subject to the landowners consent, of the documentary, photographic and material archive to the appropriate museum (LAARC) and to ensure that the appropriate level of resources for cataloguing, boxing and long term storage are available. Further details, including information on the appropriate storage media and the procedures for the transfer of ownership of artefacts is contained in: *Policy and Guidelines for the transfer of archaeological archives by SWAT Archaeology*.

6.4 The archaeological contractor is to allow the site records to be inspected and examined at any reasonable time, during or after the evaluation, by SkillCrown Homes Ltd and the HE Archaeological Officer.

6.5 Copies of all reports compiled as a result of the excavation and post-excavation archaeological works will be submitted to SkillCrown Homes Ltd. In addition two copies of each report to the HE Archaeological Officer and one copy of each report to the HER Officer, the Greater London HER Team for inclusion on the County Sites & Monuments Record.

6.6 In undertaking the work the archaeological contractor is to abide by the: *Code of conduct* and the: *Code of approved practice for the regulation of contractual arrangements in field archaeology* of the Institute of Field Archaeologists.

*Compiled by: SWAT.Archaeology- Dr Paul Wilkinson MCIfA.
02/11/2016 updated 8/11/16*



Plate 1. Aerial view of site with proposed 15m evaluation trench (yellow)

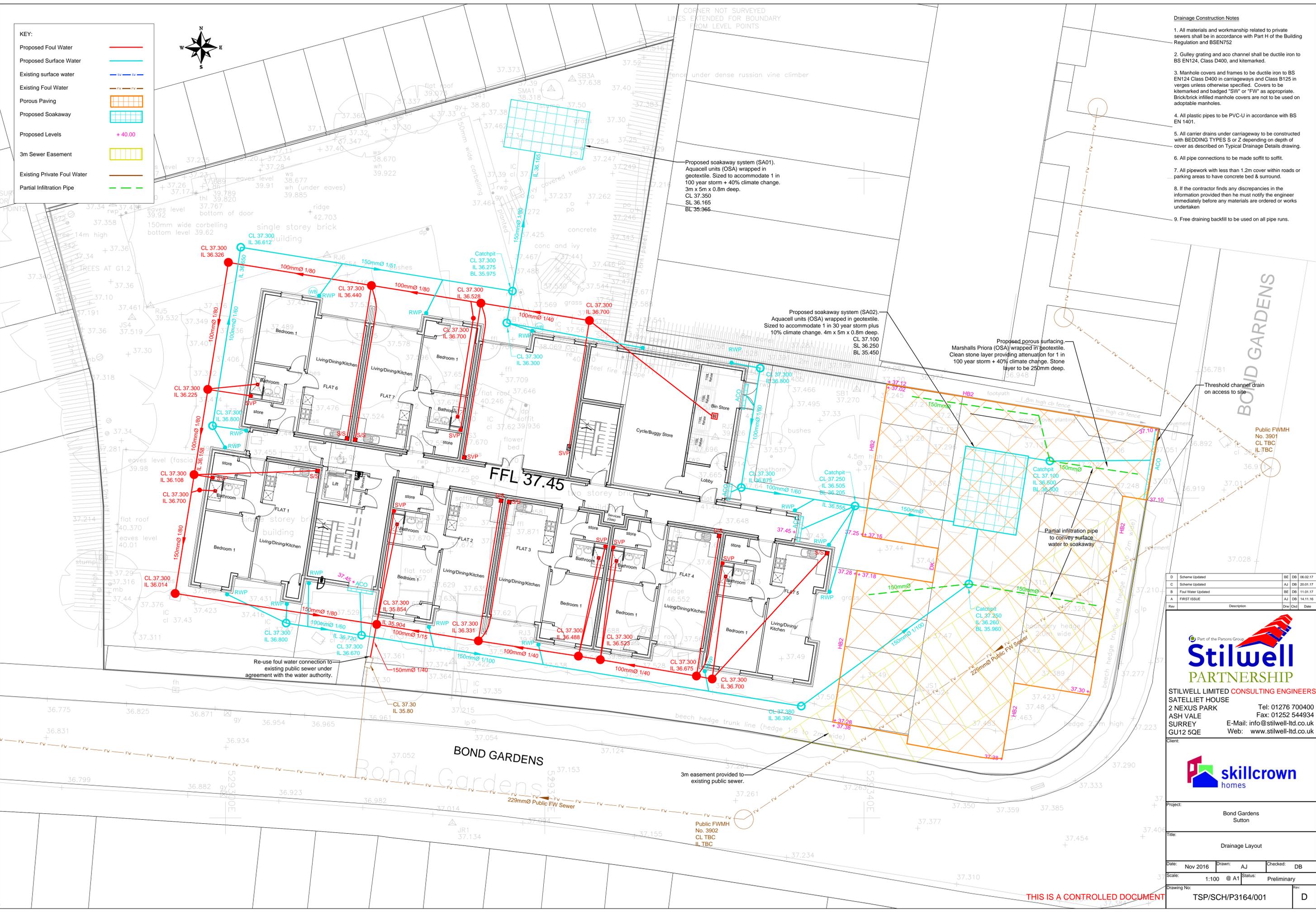


Figure 1. Site location with the recommended location of the five evaluation trenches

- KEY:**
- Proposed Foul Water —
 - Proposed Surface Water —
 - Existing surface water —
 - Existing Foul Water —
 - Porous Paving
 - Proposed Soakaway
 - Proposed Levels + 40.00
 - 3m Sewer Easement
 - Existing Private Foul Water —
 - Partial Infiltration Pipe - - -



- Drainage Construction Notes**
1. All materials and workmanship related to private sewers shall be in accordance with Part H of the Building Regulation and BS EN752
 2. Gully grating and aco channel shall be ductile iron to BS EN124, Class D400, and kitemarked.
 3. Manhole covers and frames to be ductile iron to BS EN124 Class D400 in carriageways and Class B125 in verges unless otherwise specified. Covers to be kitemarked and badged "SW" or "FW" as appropriate. Brick/brick infilled manhole covers are not to be used on adoptable manholes.
 4. All plastic pipes to be PVC-U in accordance with BS EN 1401.
 5. All carrier drains under carriageway to be constructed with BEDDINGS TYPES S or Z depending on depth of cover as described on Typical Drainage Details drawing.
 6. All pipe connections to be made soffit to soffit.
 7. All pipework with less than 1.2m cover within roads or parking areas to have concrete bed & surround.
 8. If the contractor finds any discrepancies in the information provided then he must notify the engineer immediately before any materials are ordered or works undertaken
 9. Free draining backfill to be used on all pipe runs.



Rev	Description	Drawn	Checkd	Date
D	Scheme Updated		DB	06.02.17
C	Scheme Updated	AJ	DB	20.01.17
B	Foul Water Updated	BE	DB	11.01.17
A	FIRST ISSUE	AJ	DB	14.11.16



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Client:

Project: Bond Gardens
Sutton

Title: Drainage Layout

Date: Nov 2016	Drawn: AJ	Checked: DB
Scale: 1:100 @ A1	Status: Preliminary	
Drawing No: TSP/SCH/P3164/001		Rev: D

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FIGURES



Figure 1: Site location map, scale 1:5000.



Figure 2: Site plan, scale 1:500



Figure 3: Watching Brief on Foundation Trenches, scale 1:500

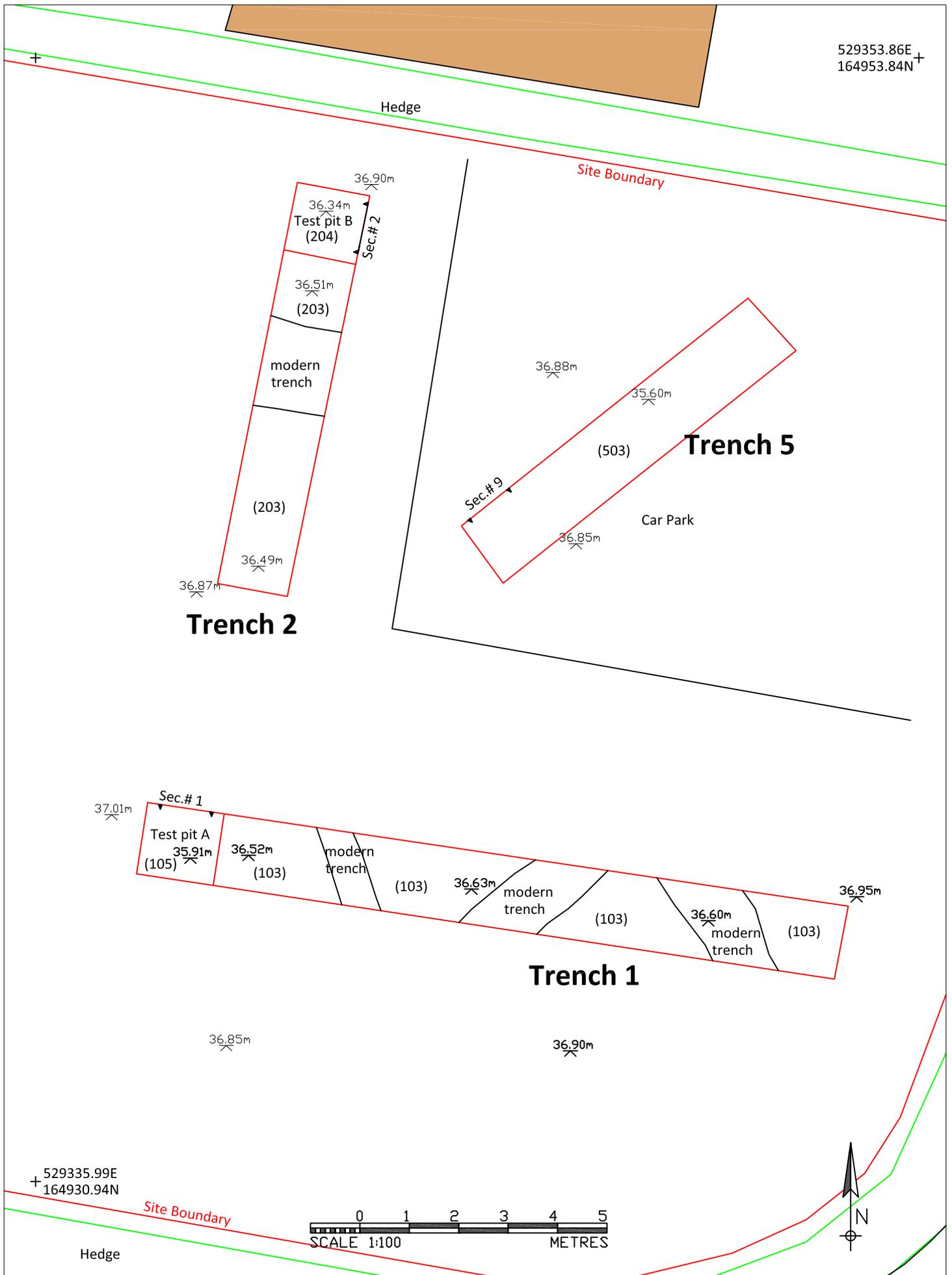


Figure 4: Plan of Trench 1, 2 and 5, scale 1:100

529296.14E
+
164947.78N

529319.05E
+
164947.78N

Trench 3

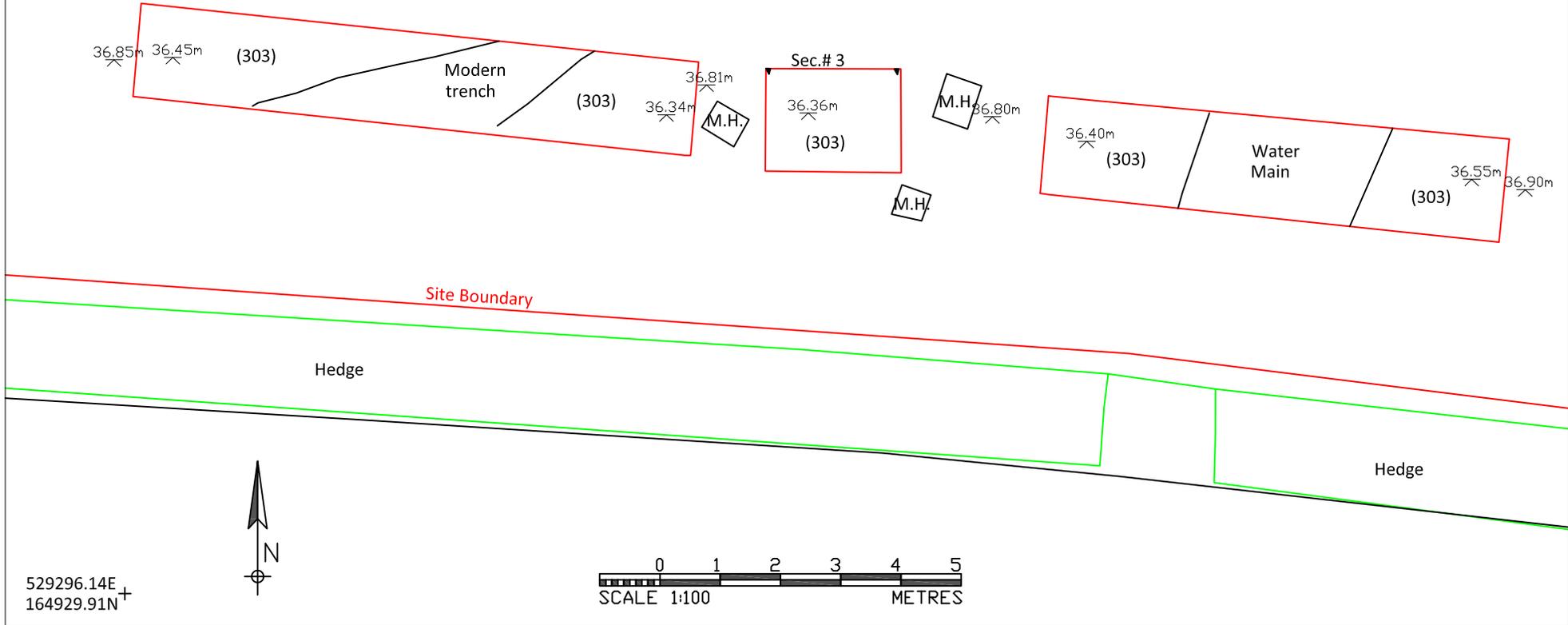


Figure 5: Plan of Trench 3, scale 1:100

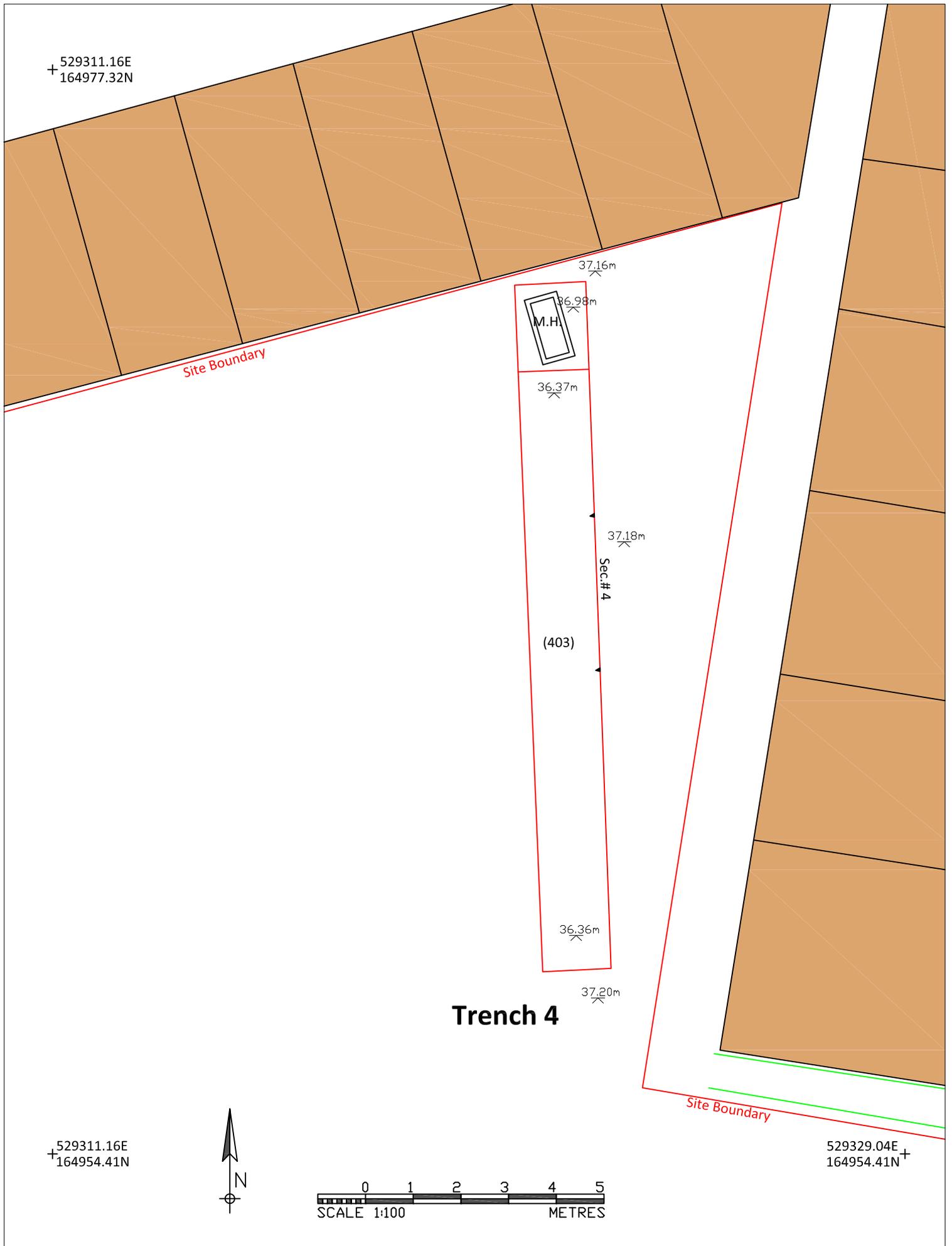
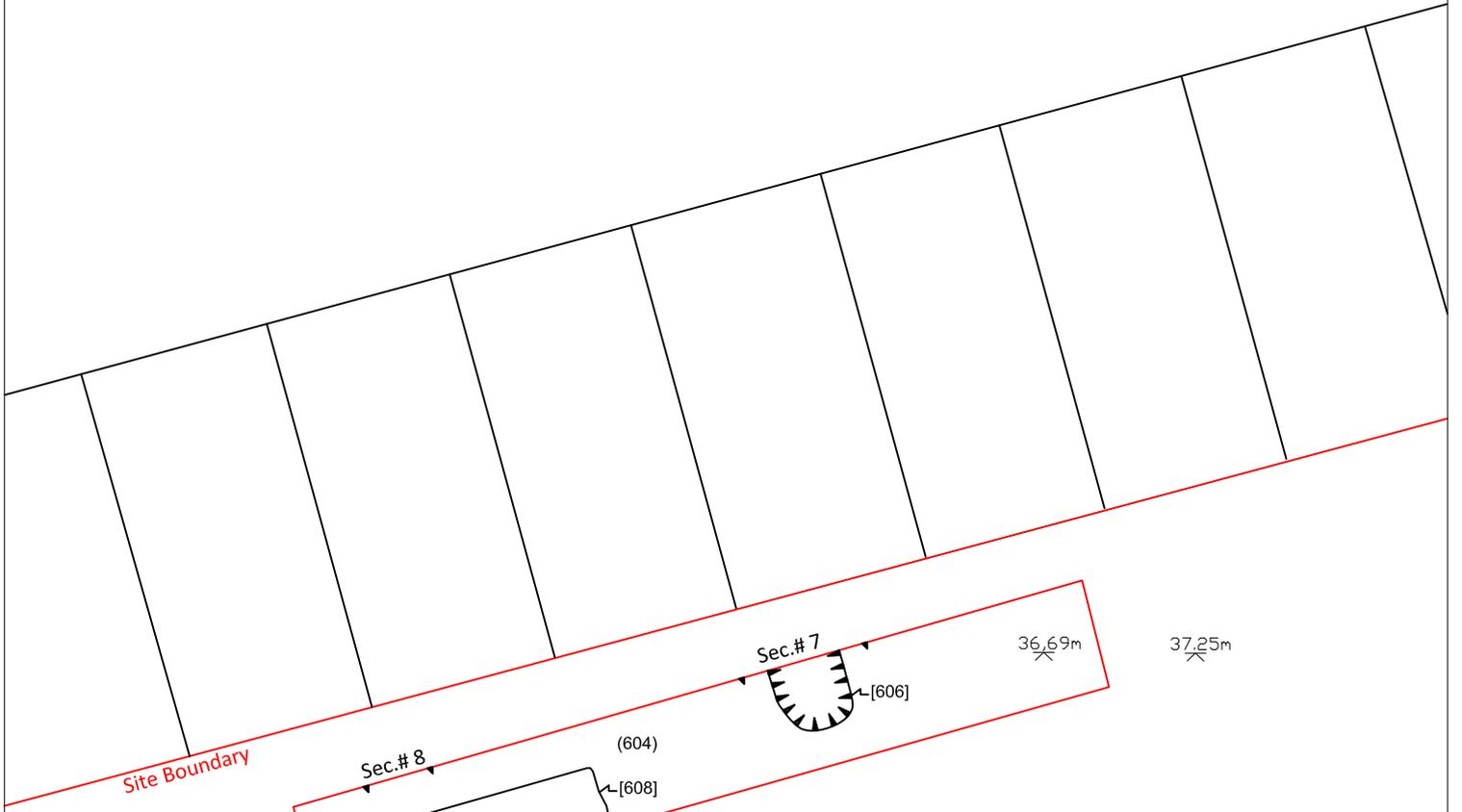


Figure 6: Plan of Trench 4, scale 1:100

+ 529293.59E
+ 164977.02N



Site Boundary

Sec.# 8

Sec.# 7

Trench 6

37.21m

36.75m

(609)

(604)

[608]

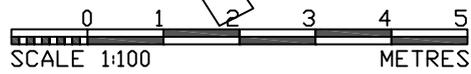
[606]

36.69m

37.25m

37.15m

+ 529293.59E
+ 164954.12N



529305.60E
164952.48N+

Figure 7: Plan of Trench 6, scale 1:100

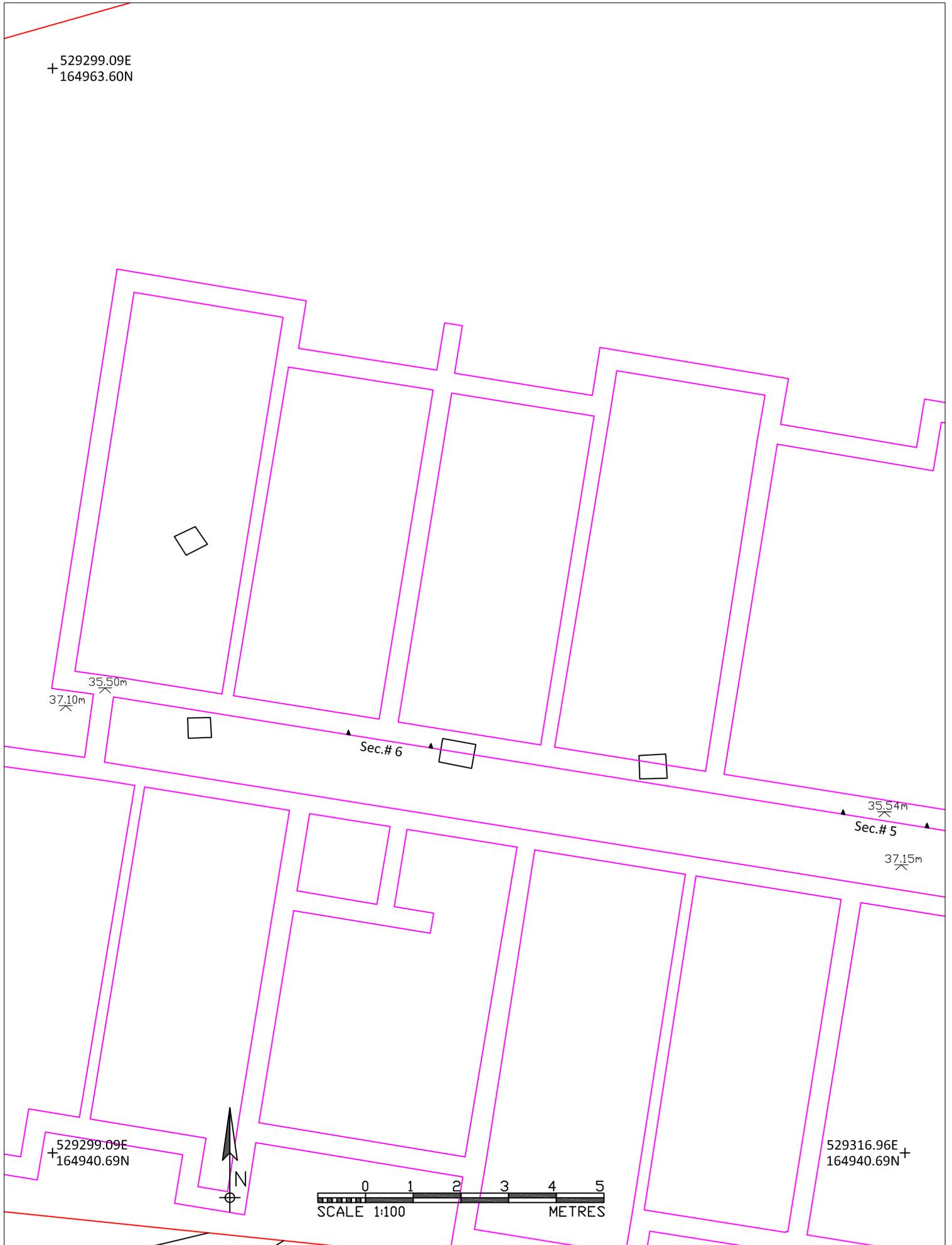
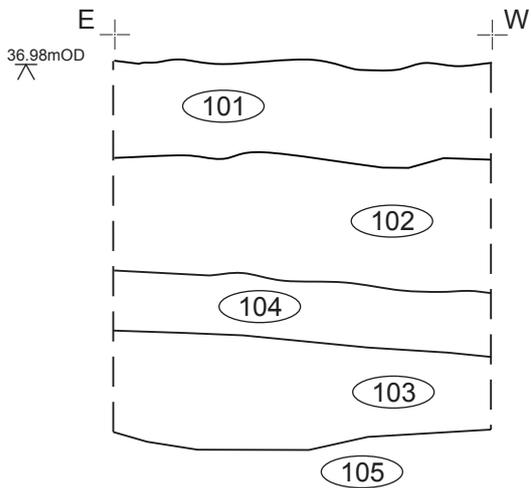
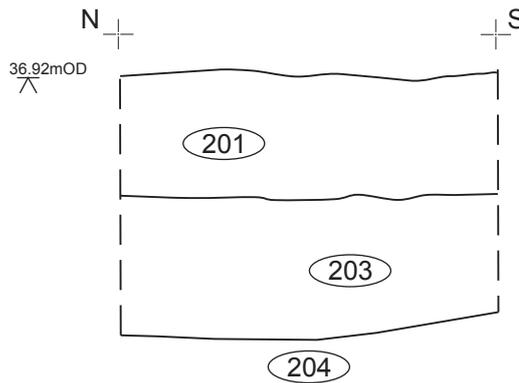


Figure 8: Location of Section 5 and 6 - Watching Brief of foundation trenches, scale 1:100

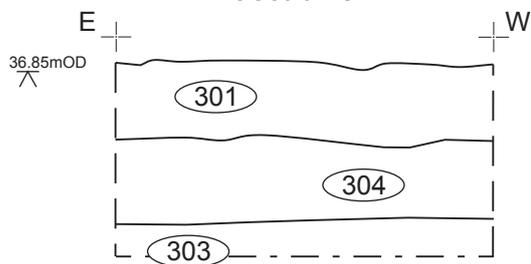
Section 1



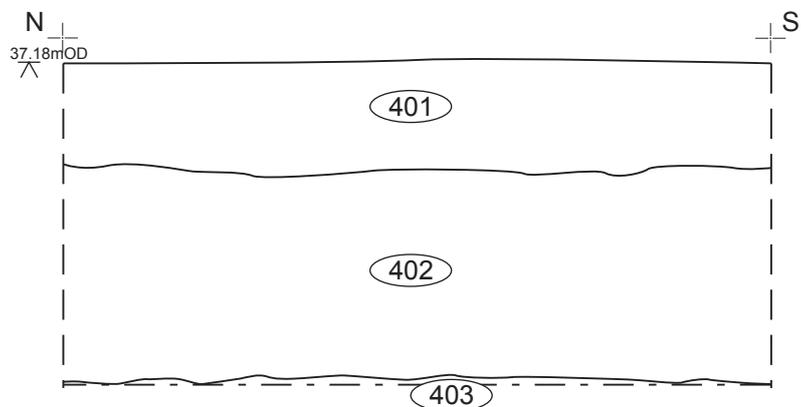
Section 2



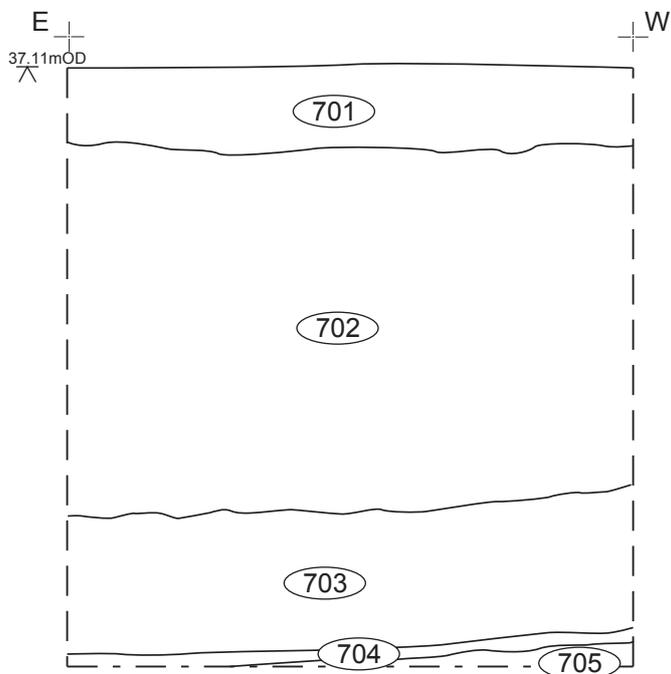
Section 3



Section 4



Section 5



Section 6

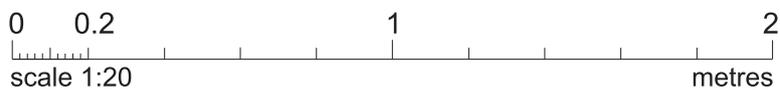
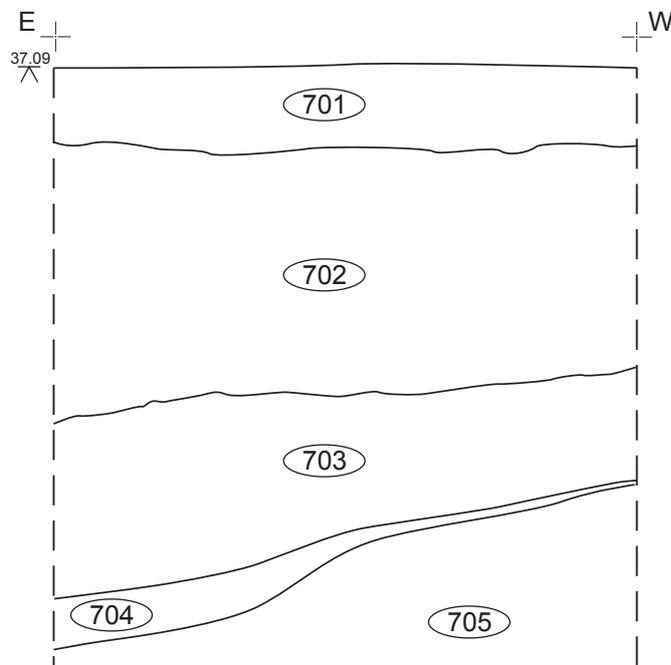


Figure 9: Representative sections.

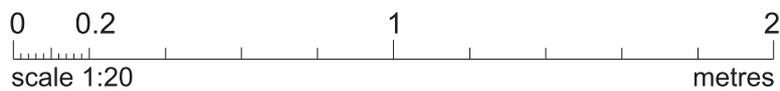
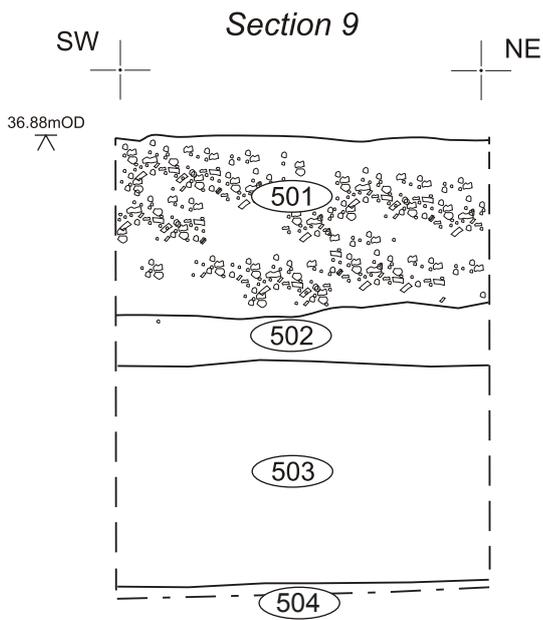
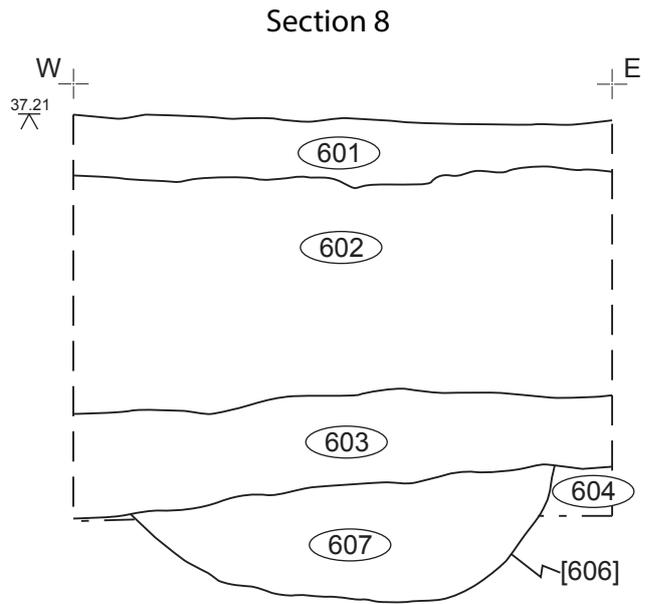
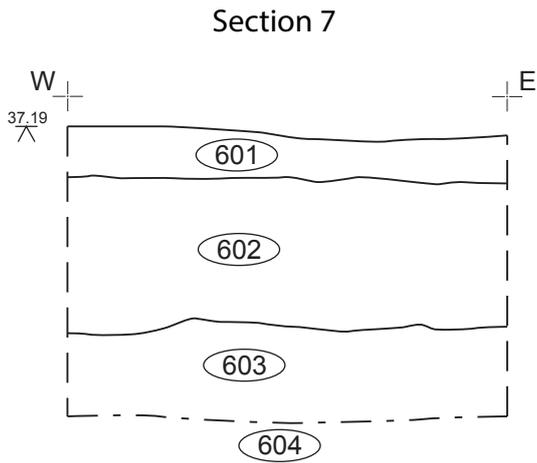


Figure 10: Representative sections.



Plate 1: Looking north-west, showing the site, Trench 1 in foreground, Trench 2 in background



Plate 2: Looking south-east, showing site, Trench 1 visible in foreground, Trench 2 in background.



Plate 3: Showing Evaluation Trench 1, viewed from the east



Plate 4: Showing Evaluation Trench 1, viewed from the west



Plate 5: Showing representative section 1.1 in Trench 1 (trial test-pit in Trench 1). Viewed from the south



Plate 6: Showing representative section 2.1 in Trench 2 (trial test-pit in Trench 2). Viewed from the west



Plate 7: Showing evaluation Trench 2, viewed from the south



Plate 8: Showing evaluation Trench 3, viewed from the west



Plate 9: Showing eastern end of evaluation Trench 3, live water-main visible in foreground, viewed from the east



Plate 10: Showing representative section 3.1 in Trench 3, viewed from the south



Plate 11: Showing Evaluation Trench 5, viewed from the southwest



Plate 12: Showing representative section 9 in Trench 5, viewed from the southeast



Plate 13: Showing Evaluation Trench 6. Looking SWW, viewed from the northeast



Plate 14: Showing representative section 7 and half-sectioned Pit 606 in Trench 6



Plate 15: Showing Evaluation Trench 4, viewed from the south



Plate 16: Showing representative section 4 in Trench 4, viewed from the west



Plate 17: Showing foundation trenches, viewed from the northeast



Plate 1: Looking north-west, showing the site, Trench 1 in foreground, Trench 2 in background



Plate 2: Looking south-east, showing site, Trench 1 visible in foreground, Trench 2 in background.



Plate 3: Showing Evaluation Trench 1, viewed from the east



Plate 4: Showing Evaluation Trench 1, viewed from the west



Plate 5: Showing representative section 1.1 in Trench 1 (trial test-pit in Trench 1). Viewed from the south



Plate 6: Showing representative section 2.1 in Trench 2 (trial test-pit in Trench 2). Viewed from the west



Plate 7: Showing evaluation Trench 2, viewed from the south



Plate 8: Showing evaluation Trench 3, viewed from the west



Plate 9: Showing eastern end of evaluation Trench 3, live water-main visible in foreground, viewed from the east



Plate 10: Showing representative section 3.1 in Trench 3, viewed from the south



Plate 11: Showing Evaluation Trench 5, viewed from the southwest



Plate 12: Showing representative section 9 in Trench 5, viewed from the southeast



Plate 13: Showing Evaluation Trench 6. Looking SWW, viewed from the northeast



Plate 14: Showing representative section 7 and half-sectioned Pit 606 in Trench 6



Plate 15: Showing Evaluation Trench 4, viewed from the south



Plate 16: Showing representative section 4 in Trench 4, viewed from the west



Plate 17: Showing foundation trenches, viewed from the northeast



Plate 18: Showing representative section 5 of foundation trench, viewed from the north