



Old Station Road, Moorswater, Cornwall

Archaeological Watching Brief



Historic Environment Projects

Old Station Road, Moorswater, Cornwall

Archaeological Watching Brief

Client	Clinton Hull
Report Number	2014R031
Date	April 2014
Status	Final
Report author	Colin Buck
Checked by	Andy Jones
Approved by	Andrew Young

Historic Environment, Cornwall Council

Fal Building, New County Hall, Treyew Road, Truro, Cornwall, TR1 3AY

tel (01872) 323603 fax (01872) 323811 E-mail hes@cornwall.gov.uk

www.cornwall.gov.uk

Acknowledgements

This study was commissioned by Clinton Hull and carried out by Historic Environment Projects, Cornwall Council.

The Project Manager was Colin Buck.

The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.



Historic Environment, Cornwall Council is a Registered Organisation with the
Institute for Archaeologists

Cover illustration

A photograph of Old Station Road, Moorswater, taken from the railway viaduct in the late 1950s. The project area site is visible in the lower right side of the image.

© Cornwall Council 2014

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the publisher.

Contents

1	Summary	7
2	Introduction	8
2.1	Project background	8
2.2	Aims	8
2.3	Methods	8
2.3.1	Fieldwork	9
2.3.2	Post-fieldwork	9
3	Location and setting	9
4	Designations	9
4.1	National	9
5	Site history	9
6	Archaeological results	10
7	Conclusions	11
8	References	12
8.1	Primary sources	12
8.2	Publications	12
8.3	Websites	12
9	Project archive	12
	Appendix 1: Brief for Archaeological Recording	13
	Appendix 2: Written Scheme of Investigation	18
	Appendix 3: Figures	27

List of Figures

Figure 1 Site location plan.

Figure 2 Liskeard Tithe Map (1842), showing the site and overlay (in blue) of developments to the present day (in particular the impact of the new road).

Figure 3 First edition of the Ordnance Survey 1:500 Map, c1880 showing the site area.

Figure 4 Photograph of Moorswater c1965 (taken from railway viaduct).

Figure 5 Plan of masonry walling in excavated area.

Figure 6 Looking upslope, eastwards at the start of the site excavation.

Figure 7 Lower wall foundations of the small building revealed (viewed from the south).

Figure 8 Machine excavations at the north east top corner of the site showing mixed site stratigraphy to shillet/bedrock level.

Abbreviations

HER	Cornwall and the Isles of Scilly Historic Environment Record
MCO	Monument Cornwall number in English Heritage's Exegesis database
OS	Ordnance Survey
PRN	Primary Record Number in Cornwall HER

1 Summary

Historic Environment Projects, Cornwall Council undertook a watching brief during ground-works for a new dwelling at Station Road, Moorswater, near Liskeard. The site was south of a Listed limekiln (another no longer extant kiln lay further to the north). The new site, one of a number of new dwellings, was adjacent to two other new construction sites. The site to the north has been partially built (foundations only), and subject of an archaeological watching brief in 2011, whilst the site immediately to the south (Tremarlis), has also been built.

During the ground-works the lower foundation walls of a small stone built building was uncovered. The building can be seen on the 1880 OS map and later maps. It is also shown on the front cover image and the c1965 photo, and appears to have been a small stone shed. The site itself appears to have been used as an allotment for an adjacent house, in the 19th and 20th centuries.

The project allowed for the identification and recording of this small building which correlates with cartographic and photographic evidence. The site was removed after recording. The steeply sloping remainder of the site appears to have been partially over dumped during construction of the A38 Liskeard Bypass in 1974, and during construction of the houses either side of the site.

2 Introduction

2.1 Project background

Historic Environment Projects were commissioned by Phil Tunstall, Frank Timothy Associates Limited (acting on behalf of the client Clinton Hull, the site developer), to undertake a programme of archaeological recording of a new dwelling at Station Road, Moorswater, near Liskeard (SX 23740 64125, Fig 1). The development is set within an area of approximately 0.052 ha. The archaeological recording was required as part of a planning condition (E2/10/00499/FUL) for the proposed construction. This stated that: *'No development shall commence until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority. Reason: The works are located in an area of archaeological significance where the recording of archaeological remains should be carried out prior to works taking place in accordance with Saved Policy EV1 of the Caradon Local Plan 1999'.*

Phil Copleston (Historic Environment Planning Advice Officer for East Cornwall, Cornwall Council) produced a brief for the archaeological recording (29/7/13, Appendix 1). James Gossip of HE Projects produced a Written Scheme of Investigation (31/7/13, Appendix 2) and this has been followed.

The site is located within the post-medieval settlement of Moorswater. It lies south of a limekiln (MCO 7257, HER PRN 42455), which is a Grade II Listed Building. A smaller kiln (MCO 7258, HER PRN 42469) stood on the northern edge of the development area but has been demolished and no surface traces remain. This site was subject to an archaeological watching brief (Taylor 2011), and subsequently the house foundations have been built. This project area site is immediately south of the former development site (see Fig 1). This part of the Moorswater area includes a number of buildings and structures that are associated with post-medieval industrial activity. As such, there was potential for below-ground archaeological remains to be encountered.

2.2 Aims

The purpose of the archaeological recording was:

- To record archaeological features, layers and finds affected by the works.
- To establish the extent, condition, significance and character of the archaeological resource.
- To establish the presence/absence of archaeological remains.
- To identify any artefacts relating to the occupation of the site.
- The dissemination and publication of the results.
- The long-term conservation of the project archive in appropriate conditions.

In particular the key objective was:

- To investigate and recover evidence in the form of artefacts, structures, and deposits associated with post-medieval, medieval, and earlier activity in order to enhance our knowledge of the extent, form, and potential of the site.

2.3 Methods

Prior to undertaking the fieldwork the project officer familiarised himself with the archaeological potential of the area. This involved the reading of pertinent data held at HE offices, and reviewing appropriate historic mapping. A risk assessment was carried out prior to the start of fieldwork.

2.3.1 Fieldwork

A preliminary site meeting was held with Clinton Hull, the site developer, on 13th August 2013 to view the site, discuss the archaeological recording during the site excavation, and review any archaeological constraints. Fieldwork was undertaken on August 19th, 21st and 3rd September 2013. The ground-works were undertaken by a mechanical excavator equipped with a toothed bucket. Site excavations were monitored at appropriate intervals by the HE Project Officer until all significant archaeological layers had been recorded and removed.

2.3.2 Post-fieldwork

The results from the fieldwork have been collated as a project archive. This involved production of this report, and the cross-referencing of photographs, and drawings. No finds were discovered.

3 Location and setting

The site is located within the post-medieval settlement of Moorswater, which lies to the west of Liskeard and from which it is separated by the A38 trunk road. Moorswater developed in the early decades of the 19th century as a transport hub between Liskeard, the Caradon Hill mines and Looe. Lime kilns were constructed on both sides of the valley to serve the massive demand for lime, and houses built to serve the workers. By the 1880s (Fig 3), Moorswater was a busy village with its own chapel. However, a large part of the upper settlement was destroyed (see Fig 4), by the construction of the A38 Liskeard Bypass in 1974 (Johns and Thomas 1999), but despite this, the settlement continues to house a variety of light industrial facilities (see Fig 2), with a few remnants in the valley base of original houses and limekilns.

The site is situated on a steep south west-facing hillslope immediately below an embanked section of a slip road feeding the A38 from Liskeard. This is the third new housing development to have taken place along the east side of a lane running along the east side of the river. The first was to the south of the project site (Tremarlis), and the second to the north (foundations only built), and the subject of an archaeological watching brief (Taylor 2011). To the south, the Plymouth to Penzance mainline crosses the valley over a large stone viaduct (constructed in 1881), which replaced the earlier Brunel bridge of 1859, the piers of which are still standing (see Fig 2).

The geology of the site is alluvium of Quaternary origin in the valley bottom with underlying solid geology of Middle Devonian slates on the valley sides.

4 Designations

4.1 National

The site is the middle of three new building plots, the northern site adjacent to a large lime kiln (SX 23705 64178), a Grade II Listed Building with Group Value (979-1/3/135) (MCO 7257, Figs 2 and 3). The project area itself has no statutory designation.

5 Site history

Previous archaeological investigations in and around Moorswater have resulted in a number of archaeological and landscape assessment reports (for example, Johns and Thomas 1999). An archaeological recording report was produced by HE Projects in 2011 (Taylor 2011), for the adjacent plot of ground. There have been no known archaeological ground investigations previously in the project area.

The settlement of Moorswater was built around the terminal of the Liskeard and Looe canal, opened in 1828, and prospered, initially as a lime burning centre, and later as a staging post from the mines and granite quarries on the edge of Bodmin Moor (Caradon

Hill), to Looe. The later Liskeard - Looe Canal was replaced by a connection to the Liskeard to Looe railway in 1860, and the settlement continued to flourish as a hub of industry, both to the Caradon mines and Liskeard (see Fig 3). China clay dries were constructed at Moorswater by the early twentieth century and these were still in use into the late 1990s (see Fig 2).

Figure 2, the 1842 Tithe map shows the site (and those to the north and south), to have been a single sloping field. However, by the 1880s (Fig 3), a house has been built (SX 23743 64141), and by 1906 (OS Second Edition – not reproduced in this report), an outside toilet erected at SX 23760 64133 (no doubt a fine view of the valley!), and a pathway from the house had been made. Figure 3 also shows a small pathway from the lane up the hillslope (and main access via the Limekiln site), and then along the valley side to the house. Interestingly, this map shows a hachured level across the site area, which may well be shillet subsoil that had been dumped there when the Limekilns site adjacent to the project site was excavated into the hillslope – possibly giving rise to the observation of a large amount of shillet subsoil over the site (see below).

The 1880 map indicates that there were at least three walled areas – two of which may have been buildings close to the north-west corner of the site. Only one of these buildings is partly in the project area. The probable functions of each are labelled on Figure 3; an (unroofed) yard area (probably relating to the functioning of limekilns - possibly a walled coal yard is at SX 23722 64132), a possible house/office, again probably relating to the functioning/management of the limekilns (SX 23730 64134), and a small rectangular roofed building measuring 6.5m x 4.3m. This building is partly within the project area, and may have been perhaps a cart shed, a store or (perhaps later), a vehicular garage. Walling of the latter extended into the north-west corner of the project area (see below).

None of the buildings shown on the 1880 OS map survive above ground level. The (upper) house and outside WC was removed in 1974, the remainder of the buildings fell out of use and masonry stone removed for other purposes.

By 1906, the upper house was still extant but the lower house/office had become unroofed and its walls merged into those of the 'yard'. The limekilns are labelled as 'Old Limekilns', but the project area site itself appears to be little changed. The reason for this is possibly shown in the later 1960s photos. Both the front cover image and the colour image (Fig 4), shows the site to have been an allotment – probably belonging to the upper cottage which is shown on both photographs. The cottage was demolished in c1974 when the A38 link road from Liskeard was built (see Fig 2). Given the deep cutting on the east side of the site area, it appears that some subsoil waste was tipped on the development site.

6 Archaeological results

The site (see Fig 6) was overgrown with small trees and brambles, etc. During the last few years it appears to have been partially dumped upon from both the north and south sides (during each adjacent site's development), and also from the high eastern end in the 1970s, when the new A38 link road from Liskeard to the new A38 Liskeard by-pass was built. Thus, subsoil shillet has been spread over the ground from top to bottom. Figure 6 shows the swing shovel excavator removing ground to form level platforms into the hillslope to bedrock shillet for construction of the new house. This material was then loaded into a fleet of lorries for removal from the site.

Given the nature of the site (steeply sloping to the west) and its recent history (possibly dumped over from three sides), the soil profile was quite mixed, with redeposited soil evident. At the middle and upper parts of the site, natural shillet bedrock was visible at a depth of 0.4m below ground level (see Fig 8), and above that a mixed layer of light grey clay (eroded shillet) 0.15m thick, overlain by 0.2m of mixed grey redeposited soil. It appears the topsoil for the upper part of the site was stripped during A38 Liskeard slip road construction. The northern side section of the excavation

was similar but some subsoil (0.2m depth, light brown with small stone), was more evident above the eroded shillet level, and below the thin topsoil. But again, it appears some much of this was re-deposited ground.

At the lower end of the site near the lane, adequate undisturbed topsoil and subsoil layers were more evident (Figs 6 and 7). Below the topsoil (0.2m thick), approximately 0.55m of darkish brown silty loam was uncovered. This overlay the light grey clay layer (0.15m) which overlay the shillet. Masonry walling was cut into the base of the dark silty loam and the light grey clay overlying the shillet. It is likely that the hard shillet bedrock (as seen in Fig 8), was at a deeper level than excavated given the valley's steep landscape profile. It is also likely that soil creep and the degree of over-dumping may have increased the depth of the subsoil (dark loamy earth). The ground was not excavated deeper than the adjacent road level.

Analysis of archive maps (Fig 3) prior to fieldwork showed that the former site of a small building, at the lower (western) edge of the site adjacent to the lane access (SX 23717 64136), may be impacted by the new site development.

Following the discovery of the lower walls of this buried building, during the initial site excavation (at lane level), the walling was recorded and the results shown on plan in Figure 5 (and a photograph reproduced in Fig 7). The wall extended (nearly) from the northern excavation limit for a length of 5.6m until it returned for a length of 1.7m, then crumbled away as it went towards the lane. It appears that the lane has been widened, and has removed the west wall of the building in its entirety. The top of the lime mortared wall was 0.9m below the disturbed ground level (Fig 7), and 0.2m above adjacent road level. The wall was 0.5m thick (ie with an inner and outer face), and constructed of killas stone. The wall extended to a total depth of 0.5m from its top surface to its foundations, at the south corner return. The alignment of this recorded feature confers with the archive mapping for the site.

The uneven nature of the middle section of the site appears to have been due to a partial north-south excavation (to 0.6m below ground level) in the recent past, possibly to create machine access to the rear (upslope) side of the adjacent property, Tremarlis (see Fig 5), during its construction.

Following archaeological recording, the masonry wall was removed. No other significant archaeological features were identified, and no significant finds were observed nor retained.

7 Conclusions

During the ground-works the lower foundation walls of a small stone-built building was uncovered. The building can be seen on the 1880 OS map (Fig 3) and later maps. It is also shown on the front cover image and the c1965 photo (Fig 4), and appears to have been a small (possibly cart) store/shed. The site itself appears to have been used as a west facing hillside allotment for the adjacent house (see 1960s photos), in the 19th and 20th centuries, prior to its demolition (possibly in the 1970s).

The project has allowed for the identification and recording of this small building which correlates with cartographic and photographic evidence. The site was removed after recording. The steeply sloping remainder of the site appears to have been partially overdumped during construction of the A38 Liskeard Bypass in 1974.

8 References

8.1 Primary sources

Ordnance Survey, c1880. *1:500* First Edition (licensed digital copy at HE)

Ordnance Survey, c1907. *25 Inch Map* Second Edition (licensed digital copy at HE)

Ordnance Survey, 2011. *Mastermap Digital Mapping*

Tithe Map and Apportionment, 1842. *Parish of Liskeard* (digital copy at HE)

8.2 Publications

Johns, C and Thomas, N, 1999. *Moorswater, Liskeard, Cornwall. An archaeological survey*, Cornwall Archaeological Unit, Truro

Taylor, S, 2011. *Old Station Road, Moorswater, Cornwall. An archaeological watching brief*, Historic Environment Projects, Truro

8.3 Websites

<http://www.imagesofengland.org.uk/> English Heritage's online database of Listed Buildings

<http://www.heritagegateway.org.uk/Gateway/> Heritage Gateway

9 Project archive

The HE project number is **146291**

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Fal Building, New County Hall, Treyew Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing site records and notes, project correspondence and administration (146291).
2. Black and white photographs archived under the following index numbers: GBP 2312/34-37; 2313/5-11;
3. Digital photographs stored in the directory R:\Historic Environment (Images)\SITES.I-L\Liskeard Moorswater Old Station Rd WB 146291
4. English Heritage/ADS OASIS online reference: cornwall2-177048

This report text is held in digital form as: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites L\Liskeard Old Station Rd Moorswater WB 146291\Report

Appendix 1: Brief for Archaeological Recording

BRIEF FOR ARCHAEOLOGICAL RECORDING (“Watching Brief”)

Date: 29 July 2013
Address: Land at Old Station Road, Moorswater, Liskeard, Cornwall
Applicant: Site sold to new owners (unknown). Formerly, Mr & Mrs M Andrew, 78 Culver Road, St Albans, Hertfordshire, AL1 4ED (as per planning consent)
Agents: Frank Timothy Associates Limited, Oakfields, 18 Piper Road, Yate, South Gloucestershire, BS37 5SY (This brief supplied to Phil Tunstall of Frank Timothy Associates)

Historic Environment Planning Advice Officer: Phil Copleston, Cornwall Council, Historic Environment Service, Kennall Building, Old County Hall, Truro TR1 3AY. Tel. 01872 322058 E-mail. pcopleston@cornwall.gov.uk

Local Planning Authority Officer: Lyndon Westlake, Cornwall Council, 3-5 Barn Lane, Bodmin, PL31 1LZ

This brief is only valid for six months. After this period the Historic Environment Planning Advice Officer (HEPAO) should be contacted. Any written scheme of investigation (WSI) resulting from this brief shall only be considered for the same period. The contractor is strongly advised to visit the site before completing their WSI as there may be implications for accurately costing the project.

Contractors Written Scheme of Investigation (WSI)

No ground works are to be undertaken until the HEPAO and the Local Planning Authority (LPA) have approved the archaeological contractor’s WSI.

1 Introduction

This brief has been written by the HEPAO and sets out the minimum requirements for archaeological recording at Land adjacent to Old Station Road, Liskeard to discharge condition 3 of planning application E2/10/00499/FUL placed on the development.

2 Site Location and Description

The development site is located on land east of Old Station Road, Liskeard, within the valley of the East Looe River in the former settlement of Moorswater. The development area is approximately centred on Ordnance Survey grid reference SX 23737 64124.

3 Planning Background

Planning application E2/10/00499/FUL was submitted on the 25 March 2010 for the construction of a dwelling with integral garage, with alterations to existing vehicular access. This application has been approved subject to seven conditions. Condition 3 states:

No development shall commence until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the

applicant and approved in writing by the Local Planning Authority. Reason: The works are located in an area of archaeological significance where the recording of archaeological remains should be carried out prior to works taking place in accordance with Saved Policy EV1 of the Caradon Local Plan 1999.

4 Archaeological Background

The development area has been recorded on the Cornwall and Scilly Historic Environment Record (HER) as an area of considerable archaeological interest relating to the northern canal basin of the former Looe Canal, the Liskeard & Caradon Railway, various limekilns and other industrial activity, and the remains of the former hamlet of Moorswater. The development site is located southeast the site of MCO7258 MOORSWATER LIME KILN and MCO7257 MOORSWATER LIME KILN (Listed Grade II). Previous archaeological investigations in the area have resulted in a number of archaeological and landscape assessment reports (in particular, 'Old Station Road, Moorswater, Cornwall: Archaeological Watching Brief', CC HE Projects, October 2011, report no. 2011R114), but as far as is known, no particular archaeological ground investigations have previously undertaken on the site of this application area.

5 Requirement for Work

Ground works associated with the development may disturb buried archaeological remains. It is therefore important that a suitably qualified archaeologist(s) is/are present during these works in order to identify and record any features of interest.

The site specific aims are to:

- Establish the presence/absence of archaeological remains
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site
- To identify any artefacts relating to the occupation or use of the site
- To provide further information on the archaeology of the this site, the adjacent lime kilns, former canal and railway, the hamlet of Moorswater, and the wider historic landscape from any archaeological remains encountered

6 General Methodology

- 6.1 All stages of the investigation shall be supported by a written scheme of investigation (WSI).
- 6.2 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).
- 6.3 Details including the name, qualifications and experience of the site director and all other personnel (including specialist staff) shall be included within the WSI.
- 6.4 All of the latest Health and Safety guidelines shall be followed on site.
- 6.5 The IfA's Standards and Guidance should be used for additional guidance in the production of the WSI, the content of the report and the general execution of the project.

6.6 Terminology will be consistent with the English Heritage Thesaurus.

7 Archaeological Recording Methodology

7.1 Prior to the commencement of on site works the archaeological contractor should familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment record (HER), the Cornwall Records Office at Truro and the Cornwall Centre at Redruth, where appropriate.

7.2 An archaeologist shall be present to undertake a 'watching brief' during the early stages of all ground works, initial site stripping, levelling and cutting of foundation trenches and other trenches for services etc. associated with the development, unless circumstances dictate a different approach.

7.3 A toothless ditching bucket can be used for the removal of any overburden until the first archaeological horizon is exposed (site stripping) or sections exposed (trenches). Any surviving remains thus exposed shall be recorded archaeologically. The archaeological contractor is permitted reasonable time to undertake these works during groundworks, and to temporarily stop proceedings until an adequate archaeological record is made.

7.4 Details of how all archaeological contexts and artefacts will be excavated, surveyed, recovered and recorded shall be provided. The site will be tied into the national grid.

7.5 Details of the site planning policy shall be given in the WSI. The normal preferred policy for the scale of archaeological site plans is 1:20 and sections 1:10, unless circumstances indicate that other scales would be more appropriate.

7.6 The photographic record shall consist of prints in both black and white and colour together with the negatives. Digital photography may be used for report illustration. For both general and specific photographs, a photographic scale shall be included. In the case of detailed photographs it may be appropriate to include a north arrow. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

7.7 If significant archaeological deposits are exposed, all works must cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forwards.

8 Finds

8.1 Finds are not normally collected during a 'watching brief'. However, diagnostic samples may be removed to aid site interpretation where appropriate.

8.2 All finds, where appropriate, shall be washed.

8.3 All pottery, and other finds, where appropriate, shall be marked with the site code and context number.

8.4 The WSI shall include an agreed list of specialist consultants, who may be required to conserve and/or report on finds, and advise or report on other aspects of the work including environmental sampling.

8.5 The requirements for conservation and storage shall be agreed with the Royal Cornwall Museum prior to the start of work, and confirmed in writing to the HEPAO.

- 8.6 Finds work should be to accepted professional standards and adhere to the Institute for Archaeologists *Guidelines for Finds Work*.
- 8.7 Environmental sampling should be guided by *Environmental Archaeology* (English Heritage Centre for Archaeological Guidelines. 2001/02).
- 8.8 Further English Heritage guidance that may be helpful includes *Geoarchaeology* (2004) and *Archaeometallurgy* (2001).
- 8.9 The English Heritage Advisor for Archaeological Science will be able to provide archaeological science advice if required (Vanessa Straker 0117 975 0689).

9 Human Remains

- 9.1 It is unlikely that human remains will be encountered during groundworks at this site. However, should any human remains be encountered they must initially be left in situ and reported to the HEPAO and the appropriate authorities (the Coroner), where appropriate. If removal is necessary this must comply with the relevant Government regulations. If burials are encountered their legal status must be ascertained and recording and/or removal must comply with the legal guidelines.
- 9.2 If human remains are not to be removed their physical security must be ensured, preferably by back filling as soon as possible after recording.
- 9.3 If human remains are to be removed this must be done with due reverence and in accordance to current best practice and legal requirements. The site must be adequately screened from public view. Once excavated, human remains must not be exposed to public view.

10 Results

- 10.1 The full report including all specialist assessments of artefact assemblages shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall Council Historic Environment Service and the Royal Cornwall Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.
- 10.2 The archaeological contractor will undertake the English Heritage/ads online access to the index of archaeological investigations (OASIS).
- 10.3 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.
- 10.4 The report must contain:
- A concise non-technical summary of the project results.
 - The aims and methods adopted in the course of the investigation.
 - A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
 - A location map, a drawing showing those areas examined as part of the archaeological recording, and copies of any archaeological plans and sections. All plans shall be tied to the national grid.
 - All specialist reports and assessments.

- A summary of the archive contents and date of deposition.
- A context register with brief descriptions shall be included as an appendix.
- A copy of the brief and the approved WSI will be included as an appendix.

10.5 A contingency shall be made within the costs for full publication in an appropriate journal. The HEPAO will notify the contractor of such a need within four weeks of receipt of the report.

11 Archive Deposition

11.1 An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006* upon completion of the project. The requirements for archive storage shall be agreed with the appropriate museum.

11.2 If the finds are to remain with the landowner a full copy of the documentary archive shall be housed with the Cornwall Record Office and with the Courtney Library of the Royal Institution of Cornwall.

11.3 The archive including a copy of the written report shall be deposited with the Royal Cornwall Museum within two months of the completion of the full report and confirmed in writing with the HEPAO.

11.4 Where there is only a documentary archive this will be deposited with the Cornwall Record Office as well as the Courtney Library of the Royal Institution of Cornwall.

11.5 A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon.

11.6 A summary of the contents of the archive shall be supplied to the HEPAO.

11.7 Only on completion of 11.1 to 11.5 (inclusive) will there be a recommendation for the discharge of any archaeological recording condition.

12 Monitoring

12.1 The HEPAO will monitor the work and should be kept regularly informed of progress.

12.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.

12.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.

Appendix 2: Written Scheme of Investigation

Land at Old Station Road, Moorswater, Liskeard, Cornwall: Written Scheme of Investigation for archaeological recording (watching brief)

Client: Clinton Hull, 15 Mallet Road, Ivybridge, Devon PL21 9TD

Client tel: 07580 024889

Client email: clinton979@yahoo.co.uk

Agents: Phil Tunstall, Frank Timothy Associates Limited, Oakfields, 18 Piper Road, Yate, South Gloucestershire, BS37 5SY philip@franktimothy.co.uk

Project background

Historic Environment Projects (HEP) have been requested by Phil Tunstall, Frank Timothy Associates Limited (acting on behalf of the client Clinton Hull) to provide a Written Scheme of Investigation (WSI) and estimate for a programme of archaeological recording during groundworks for the erection a new dwelling at Old Station Road, Moorswater, near Liskeard. The development is set within an area of approximately 0.052 HA.

The archaeological recording is required as part of a planning condition for the proposed construction. Planning application E2/10/00499/FUL was submitted on the 25 March 2010 for the construction of a dwelling with integral garage, with alterations to existing vehicular access. This application has been approved subject to seven conditions. Condition 3 states:

No development shall commence until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority. Reason: The works are located in an area of archaeological significance where the recording of archaeological remains should be carried out prior to works taking place in accordance with Saved Policy EV1 of the Caradon Local Plan 1999.

The site is located within the post-medieval settlement of Moorswater. It lies to the south of a limekiln (MCO7257), which is a Grade II Listed Building. The site is also adjacent to a number of buildings and structures that are associated with post-medieval industrial activity.

The 1840 Tithe Map and *circa* 1880 Ordnance Survey shows buildings at the western end of the proposed development. These are probably associated with a two pot lime kiln to the north on the site (MCO 7258) which is also recorded on the Cornwall and Scilly Historic Sites, Buildings and Monuments Record. The lime kiln had been removed by the time of the *circa* 1907 2nd edition Ordnance Survey. Due to the proximity of a range of former industrial buildings there is potential for below-ground archaeological remains to be encountered.

Phil Copleston (Historic Environment Planning Advice Officer, Cornwall Council) has produced a brief for archaeological recording (29/07/13) and his requirements for archaeological recording have guided this WSI and estimate.

The development site is located on land east of Old Station Road, Liskeard, within the valley of the East Looe River in the former settlement of Moorswater. The development area is approximately centred on Ordnance Survey grid reference SX 23740 64125.

Land immediately to the north of the site has recently been the subject of an archaeological and landscape assessment report ('Old Station Road, Moorswater, Cornwall: Archaeological Watching Brief', CC HE Projects, October 2011, report no. 2011R114), supplying the site history below.

This Written Scheme of Investigation has been prepared to set out HEP's approach, working methods and arrangements for project monitoring.

Site history

Landscape

Moorswater is a post-medieval settlement, or hamlet, which lies on the western fringe of Liskeard. It is situated near to a railway station and the canal, in an area where small-scale industrial activities such as lime making, quarrying, blacksmithing and milling took place. The area has been characterised as 'Urban' (Countryside Commission 1996).

Known archaeological sites

The project area is situated within an area which contains a number of upstanding archaeological sites. Later prehistoric activity is evident in a crop-mark enclosure (MCO71581) to the south east at Lamellion. However, most of the sites, such as the limekilns, date to the post-medieval period and can be linked with the settlements close proximity to the canal and the railway station.

Moorswater railway station was the centre of operations for the Liskeard and Caradon Railway and the Liskeard and Looe Railway. The two railways made an end on junction at Moorswater. The Liskeard and Caradon Railway was opened in 1844. It ran from the quarries on the moors north of Liskeard to Moorswater where goods were shipped to the Liskeard and Looe Union Canal. At Looe they could then be transhipped again to sea-going vessels for transport further around the coast.

The canal was superseded by a railway on 27 December 1860 and passengers were carried on the Moorswater to Looe section from 11 September 1879. The new station, which was situated just north of the viaduct, was used by passengers travelling into Liskeard. In 1901 passenger trains from Looe were diverted over the new loop line to Liskeard railway station and Moorswater station closed to passengers. Goods traffic has continued on and off up to the present day. A siding for the Cheesewring Quarry Company opposite the station was later used by the Cornwall County Council as a road maintenance depot until 1964. Beyond the station another siding lead into the china clay works of the St Neots China Clay Company where china clay was processed that was brought down from Bodmin Moor by pipeline before being dispatched as powder to Looe or, later, Fowey. This was opened in 1904 and closed in the 1990s but the site has since been used as a cement distribution depot and trains are brought in from time to time.

The two pot kiln (MCO 7258) shown on the 1840 Tithe Map and *circa* 1880 Ordnance Survey just to the north of the proposed development was operated by Robert Grigg and owned by John Lyne (Cornwall and Scilly HBSMR). The structure had been removed by *circa* 1907.

Sites of archaeological/historical importance which have been identified in the vicinity include:

Prehistoric enclosure (MCO71581).

Post-medieval limekiln (MCO 42455), Grade II Listed Building.

Post-medieval limekiln (MCO 7258), not extant

Post-medieval limekiln (MCO 42469).

Post-medieval limekiln and waterwheel (MCO 42453)
Post-medieval Blacksmiths (MCO 42473).
Post-medieval canal lock (MCO 10183.43).
Post-medieval quarry (MCO 71572).
Post-medieval railway viaduct (MCO 169810).

Aims and objectives

The purpose of the archaeological recording will be:

To establish the presence/absence of archaeological remains.

To record archaeological features, layers and finds affected by the works.

To establish the extent, condition, significance and character of the archaeological resource.

To identify any artefacts relating to the occupation of the site.

The dissemination and publication of the results.

The long-term conservation of the project archive in appropriate conditions.

In particular the key objective will be:

To investigate and recover evidence in the form of artefacts, structures and deposits associated with post-medieval, medieval and earlier activity in order to enhance our knowledge of the extent, form and potential of the site.

Working methods

All recording work will be undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording*. Staff will follow the *IfA Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology*. The Institute for Archaeologists is the professional body for archaeologists working in the UK.

Preparation

Prior to undertaking the fieldwork the project officer will familiarize themselves with the archaeological potential of the area. This will involve the reading of pertinent data held at HE offices.

In advance of site works a meeting will be held between HE Projects, and the client to discuss and agree:

Working methods and programme.

Health and Safety arrangements.

Fieldwork

Archaeological Recording

The ground-works will be carried out under archaeological supervision using a mechanical excavator fitted with a toothless bucket. The soil/overburden will be excavated cleanly down through the subsoil to a level at which archaeological features or layers can be expected to be revealed (i.e., to the top of archaeology or to the level of the natural). The area will then be inspected by an archaeologist and any archaeological features or layers exposed in the stripped area will be carefully excavated by hand and archaeologically recorded by written description, plan and section and photographic record as appropriate by an HE Projects archaeologist.

During the archaeological recording the archaeologist will:

Identify and record any archaeological features that are revealed in the stripped area; the level of recording will be appropriate to the character/importance of the archaeological remains.

If complex and or significant archaeological deposits are encountered then the archaeological requirements should be reviewed by the client, the Historic Environment Planning Advice Officer and HE Projects. **In the event that remains cannot be preserved *in situ* then full-scale excavation may be required.** A contingency should be allowed to record any significant archaeological remains which are uncovered during the stripping. The significance of the remains should be agreed between the client, the Historic Environment Planning Advice Officer and HE Projects.

Where necessary the detailed archaeological recording may include:

Excavation of archaeological features exposed in the stripped area and plotting them onto a base map.

Production of plans and section drawings of the excavated features and recording of features using a continuous numbering system.

Retrieval of artefacts.

Recording - general

Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey Landline (electronic) map; all drawings will include standard information: site details, personnel, date, scale, north-point.

All features and finds will be accurately located at an appropriate scale. Sections will normally be drawn at 1:10 and plans at 1:20.

All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.

Photography: scaled monochrome photography will be used as the main record medium, with colour digital images used more selectively and for illustrative purposes. This will include both general and site specific photographs. Photographs should have a scale and detailed ones should include a north arrow.

Drawings and photographs will be recorded in a register giving details of feature number and location.

Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features (ditches and pits, etc) will be sampled for environmental evidence and dating material. Advice may be needed from Vanessa Straker (English Heritage Regional Advisor for Archaeological Science).

If human remains are discovered on the site they will be treated with respect and the Historic Environment Planning Advice Officer and the Ministry of Justice will be informed. All recording will conform to best practice and legal requirements.

Treatment of finds

The archaeological fieldwork may produce artefactual material.

All finds in significant stratified contexts predating 1800 AD (eg, settlement features) should be collected by context and described. Post medieval or modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.

All finds will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.

Archiving

Following review with the HE Project Manager the results from the fieldwork will be collated as an archive. This will involve washing and cataloguing of finds, the indexing and cross-referencing of photographs, drawings and context records.

All finds, etc will be stored in a proper manner (being clearly labelled and marked and stored according to HE guidelines).

All records (context sheets, photographs, etc) will be ordered, catalogued and stored in an appropriate manner (according to HE guidelines).

The site archive and finds will initially be stored at HE premises and transferred to the Royal Cornwall Museum or other suitable repository and industry standard for archives will be followed. The repository will be notified of the commencement of the project and included in discussions for sampling and disposal as appropriate.

In the event that there are no finds or they are retained by the owner, the documentary archive will in due course be deposited with the Cornwall Record Office, but in the medium term will be stored at Pound and Co. All digital records will be filed on the Cornwall Council network.

Archive report

The results from the fieldwork will be presented in a concise report. Copies of the report will be distributed to the Client, the Historic Environment Planning Advice Officer and the local and main archaeological record libraries. A PDF copy of the report will be produced.

This will involve:

- producing a descriptive text;
- producing maps and line drawings;
- selecting photographs;
- report design;
- report editing;
- dissemination of the finished report

Deposition of archive and finds in the Royal Cornwall Museum, Truro or other suitable repository.

The report will have the following contents:

- Summary - Concise non-technical summary.
- Introduction - Background, objectives, aims and methods.
- Results - Factual description of the results of the various aspects of the project, with separate sections as necessary for discussion/interpretation and potential for further analysis.
- Discussion - Discussion of the interpretation of the results, highlighting information gained on a chronological or thematic basis
Recommendations for further analysis and publication.
- Archive - A brief summary and index to the project archive.
- Appendix - A copy of the project brief.
 - A copy of the WSI
- Illustrations - General location plan.
 - Detailed location plans to link fieldwork results to OS map.

- Selected plans and section drawings (as appropriate).
- Finds drawings (if appropriate).
- Photographs (if appropriate).

An English Heritage/ADS online access to the index of archaeological investigations (OASIS) record will be made.

Assessment/analysis

The structural and stratigraphic data and artefactual material will be assessed to establish whether further analyses and reporting is appropriate. The outline of final report, and the work required to produce it will be determined.

In the event of significant remains being recovered (eg, prehistoric artefacts) it may be appropriate to:

Liaise with specialists (eg, artefacts) to arrange for assessment of the potential for further analysis and reporting.

Consult with the Historic Environment Planning Advice Officer over the requirements for assessment, analysis and reporting.

Updated project design and final publication

In the event of significant remains being recorded the scope and final form of the report will be reviewed; for example in addition to an archive report the results should be published in an academic journal (eg, *Cornish Archaeology*).

Monitoring

This written scheme of investigation will need to be approved by the planning authority.

The recording exercise will be monitored. The Historic Environment Planning Advice Officer should be informed 1 week in advance of the intention to start the recording.

HE Projects will liaise with the Historic Environment Planning Advice Officer to advise on the programme and progress of work, and agree site meetings as required.

A summary of the results will be presented to the Historic Environment Planning Advice Officer within 1 month of the completion of the fieldwork.

In the event that significant remains are encountered an updated project design will be agreed with the Historic Environment Planning Advice Officer.

Project Staff

An experienced archaeologist employed by HE will carry out the archaeological fieldwork.

The report will be compiled by experienced archaeologist(s) employed by HE.

Relevant experienced and qualified specialists will be employed to undertake appropriate tasks during the assessment and analysis stages of the project.

The project will be managed by a manager who is a Member of the Institute For Archaeologists, who will:

Take responsibility for the overall direction of the project.

Discuss and agree the objectives and programme of each stage of the project with project staff, including arrangements for Health and Safety.

Monitor progress and results for each stage.

Edit the project report.

Timetable

The archiving and archive report will be completed within 12 months of the ending of the excavations. The timetable for further stages of assessment, analyses and publication will be agreed with Historic Environment Planning Advice Officer in the light of the results of the excavations.

Health and safety during the fieldwork

Historic Environment is within the Environment, Planning and Economy Directorate of Cornwall Council. The HE projects team follows Cornwall Council's Statement of Safety Policy. For more specific policy and guidelines the Unit uses the manual Health and Safety in Field Archaeology (2002) endorsed by the Standing Conference of Archaeological Unit Managers and also the Council for British Archaeology's Handbook No. 6 Safety in Archaeological Field Work (1989).

Prior to carrying out any excavations HE will carry out a risk assessment

Insurance

As part of Cornwall Council, HE is covered by Public Liability and Employers Liability Insurance.

Historic Environment Projects

Historic Environment Projects is the contracting arm of Historic Environment, Cornwall Council (HE). HE employs some 20 project staff with a broad range of expertise, undertaking around 120 projects each year.

HE is committed to conserving and enhancing the distinctiveness of the historic environment and heritage of Cornwall and the Isles of Scilly by providing clients with a number of services including:

- Conservation works to sites and monuments
- Conservation surveys and management plans
- Historic landscape characterisation
- Town surveys for conservation and regeneration
- Historic building surveys and analysis
- Maritime and coastal zone assessments
- Air photo mapping
- Excavations and watching briefs
- Assessments and evaluations
- Post-excavation analysis and publication
- Outreach: exhibitions, publication, presentations

Standards



HE is a Registered Organisation with the Institute for Archaeologists and follows their Standards and Code of Conduct.

As part of Cornwall Council, the HES has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

Terms and conditions

Contract

HE Projects is part of Historic Environment, Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

The views and recommendations expressed will be those of the HE projects team and will be presented in good faith on the basis of professional judgement and on information currently available.

Project staff

The project will be managed by a nominated Senior Archaeologist who will:

Discuss and agree the detailed objectives and programme of each stage of the project with the client and the field officers, including arrangements for health and safety.

Monitor progress and results for each stage.

Edit the project report.

Liaise with the client regarding the budget and related issues.

Work will be carried out by HE field staff, with assistance from qualified specialists and sub-contractors where appropriate. The project team is expected to include:

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

HE will ensure that all information arising from the project shall be held in strict confidence to the extent permitted under the Act. However, the Act permits information to be released under a public right of access (a "Request"). If such a Request is received HE may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

HE follows the Council's *Statement of Safety Policy*. For more specific policy and guidelines HE uses the manual *Health and Safety in Field Archaeology* (2002) endorsed by the Standing Conference of Archaeological Unit Managers and also the Council for British Archaeology's Handbook No. 6 *Safety in Archaeological Field Work* (1989).

Prior to carrying out on-site work HE will carry out a Risk Assessment.

Insurance

As part of Cornwall Council, HE is covered by Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence insurance with a policy value of £5m.

Copyright

Copyright of all material gathered as a result of the project will be reserved to the Environment, Planning and Economy Directorate of Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

This project design and estimate is the copyright of Historic Environment, Cornwall Council.

Use of the material will be granted to the client.

Notes

It is assumed that the client will supply the mechanical excavator. The cost is not included in the attached estimate.

The client will be responsible for the Health and Safety arrangements onsite (including fencing, etc), and it is assumed that welfare facilities will be made available.

The post excavation programme (assessment, analysis and reporting) will need to be reviewed in the light of the fieldwork.

James Gossip Archaeologist 31/07/13

Historic Environment Projects

Cornwall Council

Fal Building

County Hall

Treyew Road

Truro

TR1 3AY

Tel: 01872 324303

Appendix 3: Figures

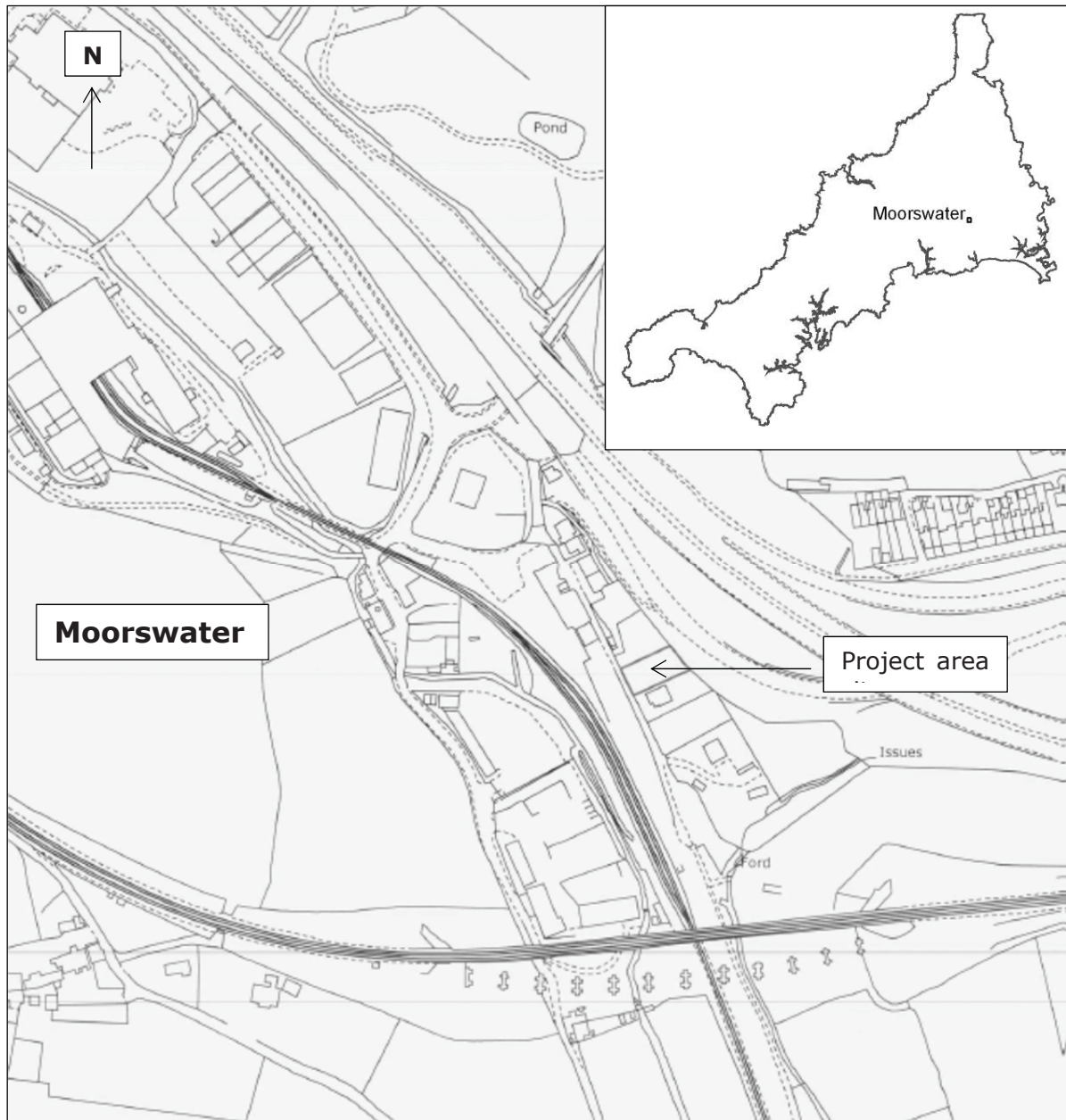


Figure 1 Site location plan.

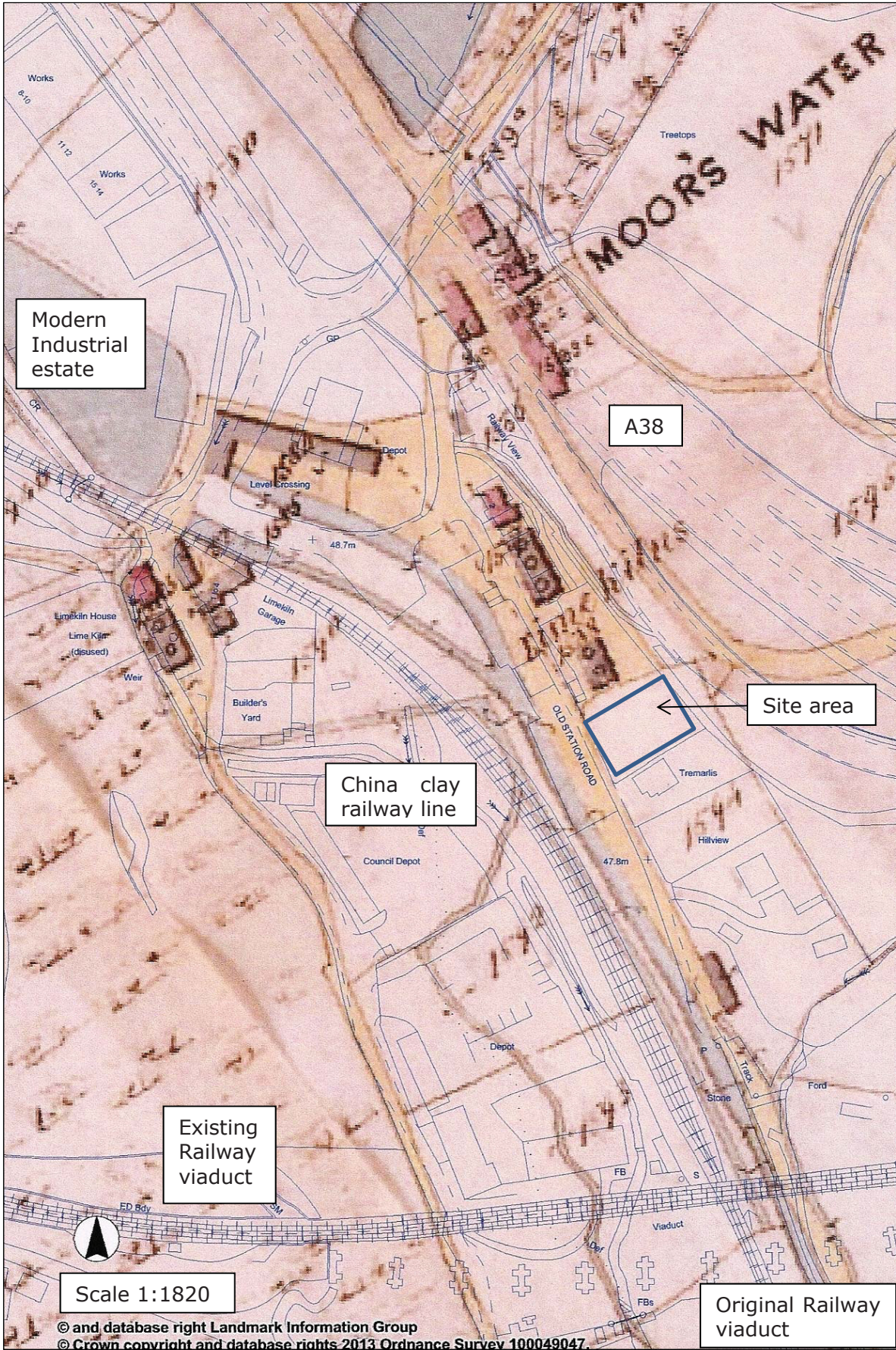


Figure 2 Liskeard Tithing Map, 1842 showing the site and an overlay (in blue) of developments to the present day (in particular the impact of the new road).

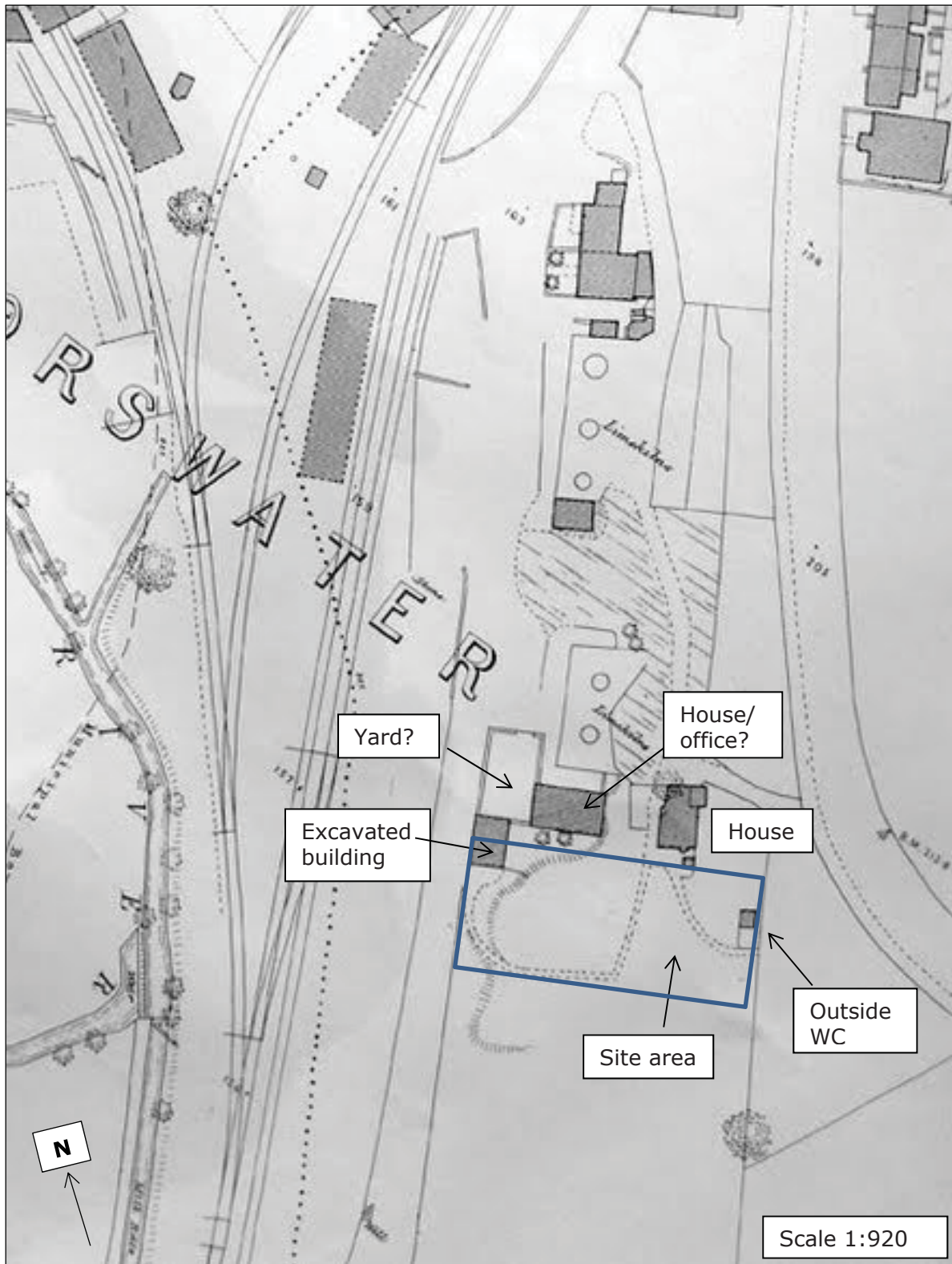


Figure 3 First edition of the Ordnance Survey 1:500 Map, c1880 showing the site area.



Figure 4 Photograph of Moorswater, c1965 (taken from the viaduct). Moorswater village (with chapel) can be seen next to the main road out of Liskeard. This was all later demolished to make way for a wider road. Part of the site area can be seen at the lower right side of the image (used as an allotment).

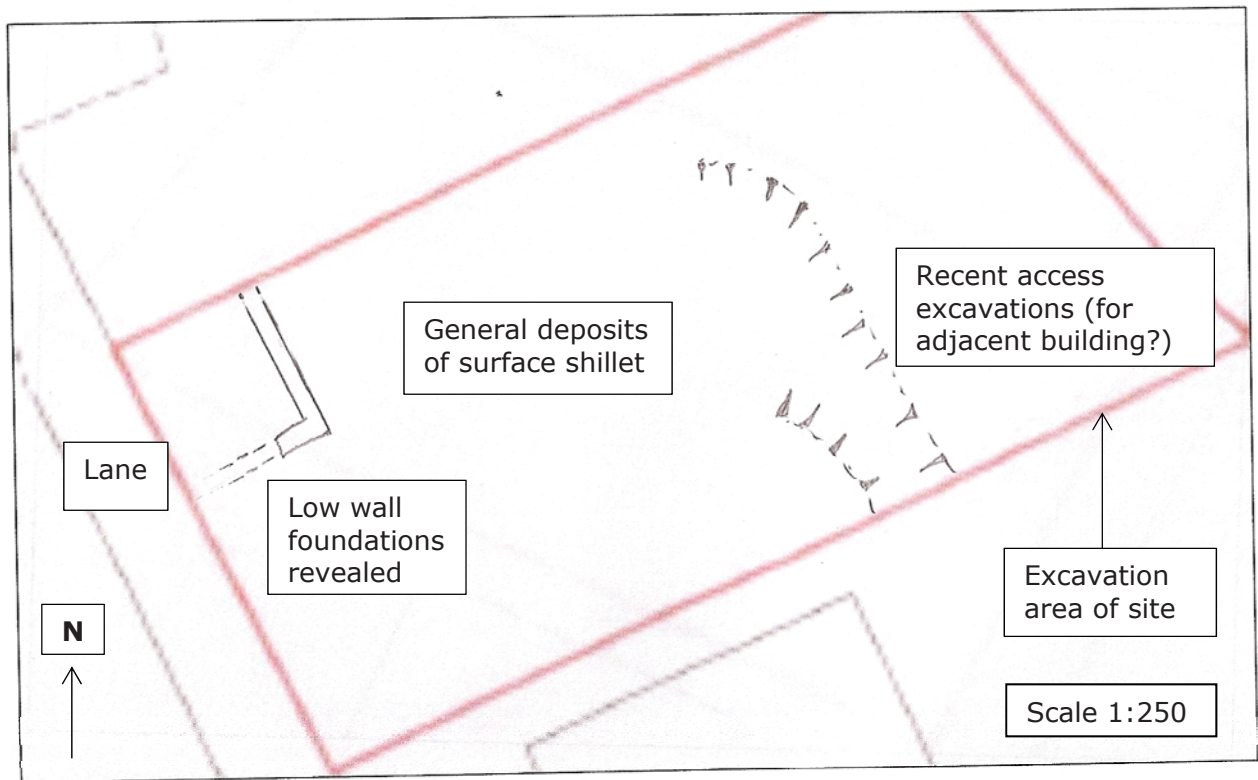


Figure 5 Plan of masonry walling in excavated area.



Figure 6 Looking upslope, eastwards at the start of the site excavation © HE projects CC 19/8/2013.



Figure 7 Lower wall foundations of the small building revealed (viewed from the south)
© HE projects CC 19/8/2013.



Figure 8 Machine excavations at the north east top corner of the site showing mixed site stratigraphy to shillet/bedrock level © HE projects CC 3/9/2013.