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Manor Tannery, Grampound, Cornwall

Watching Brief and Historic Building Record

Historic Environment Projects

Manor Tannery, Grampound, Cornwall

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This study was commissioned by Caroline Wheeleker of Linden Homes and carried out by Historic Environment Projects, Cornwall Council.

The historical research used in this report was carried out by Barry Jones of English Heritage, during an earlier study of the tannery shortly after its closure in 2000. An archaeological assessment of the site was previously carried out by Francis Shepherd of HE Projects, Cornwall Council.

Thanks are due to Peter Smith and Paul Riley, the development site managers, as well as their site team, for their interest and assistance to the project team members.

Jo Sturgess carried out recording during initial archaeological fieldwork at the site associated with the ecological survey. Graeme Kirkham, Sean Taylor and Carl Thorpe undertook recording works during topsoil stripping works in advance of the housing development. Carl Thorpe contributed Section 6.2 and the finds report to summarise this work. The building survey was carried out by Jo Sturgess and Nigel Thomas.

The Project Manager was Nigel Thomas.

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 group of tanning pits in Building 9, looking north-east.

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Abbreviations

CRO	Cornwall County Record Office
EH	English Heritage
HE	Historic Environment, Cornwall Council
NGR	National Grid Reference
OS	Ordnance Survey

1 Summary

Between October 2011 and May 2012 Historic Environment Projects (HE Projects), Cornwall Council carried out an historic building record and series of archaeological watching briefs on land at Manor Tannery in Grampound, centred at NGR SW 93618 48220 (Figs 1 and 2). The work was commissioned by Linden Homes and carried out in order to satisfy several conditions for planning consent to convert many of the historic buildings and create a new housing development.

The watching brief and building record were part of a staged approach to the archaeological mitigation and followed the production of an archaeological assessment undertaken by HE Projects, CC (Shepherd 2011) and geophysical survey of the site carried out by GSB Prospection Ltd (GSB Ref 2011/49) (Fig 97).

The proposed development lies within the medieval village core of Grampound and occupies the site of several medieval burgage plots and post-medieval tanneries, later combined to form a single tannery complex. Three separate tanneries developed here from the late 18th century and expanded through the 19th and 20th centuries to form the complex of buildings and structures that exists today. In the 19th century the three tanneries were known as Forster's Yard (to the west), The Manor Tannery Yard (centre) and Wellington's Yard (to the east). In 1906 these three tanneries finally amalgamated to form Manor Tannery. Until its closure at the beginning of the year 2000, Manor Tannery was one of the few tanneries in Britain capable of producing high grade heavy leather using traditional oak bark tanning techniques.

Due to the rarity of such an intact historic tannery, the site contents and buildings were recorded by English Heritage in 2000 (report NBR No: 105518, issued in 2001). This work was undertaken shortly after the cessation of working at the site, and involved the creation of ground floor plans for most of the buildings and structures, a brief photographic record, documentary research and analysis. When English Heritage carried out their survey, the tannery had recently closed and discussions with the Trevithick Trust were in progress regarding possible future use of the site as a museum. The study by English Heritage, although very thorough, was carried out with the anticipation that the buildings and structures would be preserved as they were within the industrial complex. The present proposal for the site is for conversion of most of the tannery buildings into dwellings (this includes three Grade II listed buildings) and demolition of two 20th century buildings. It also includes the construction of a large housing development to the rear and east of the main tannery complex. A more complete record of the buildings and an archaeological watching brief were required to fulfil the conditions of the current planning consent.

No prehistoric features or artefacts were uncovered during the watching briefs. The majority of features identified related to ploughed-out field systems dating from the medieval period through to the post-medieval period. However, a wide scatter of charcoal filled pits along with a group of related pits remains undated and of unknown function.

The building record included all of the tannery buildings within the main complex located in the northern part of the site (Buildings 1-15) and also a single structure (Building 18) in the southern half of the site which was marked for demolition. Other buildings and structures associated with the tannery at the southern end of the site lay outside the development area and were not included within the building record.

A recommendation for further work is that archaeological analysis (including environmental analysis of samples and some radiocarbon dating) is undertaken to date and identify some of the features uncovered during the watching briefs. It was also noted that any future development or consolidation work to the southern part of the tannery site, which lies immediately south of the development area, should be subject to an historic building record and archaeological work as appropriate.

2 Introduction

2.1 Project background

Planning consent was granted by Cornwall Council for residential redevelopment of land to the rear of the former Manor Tannery in Grampound and some adjoining farmland to the east. Conditions were placed to control works which would have an impact on the significance of historic assets. Planning application 07/01971 related to the conversion of the former Tannery buildings (Listed Grade II) to residential use. Planning application 07/01969 related to the development of land to the rear of the main complex which will be developed as housing. Consents to 07/01969 (condition 28) and 07/01971 (condition 27) included the following wording:

> *No development shall take place until a programme of archaeological and historic building work to include a watching brief and a geophysical survey has been secured and implemented in accordance with a written scheme of investigation to be submitted to and approved in writing by the Local Planning Authority in consultation with the County Archaeologist.*

A range of further conditions were applied to 07/01969 to control details of the conversion and demolition of the Tannery buildings, and secure reuse within the complex of machinery and stonework where it was not to remain *in situ*. These latter conditions particularly referred to the relative significance and conservation options of the range of tanning and lime pits around the complex.

A brief dated 22nd April, 2010 setting out the requirements for archaeological and historic building assessment was prepared by Dan Ratcliffe, Historic Environment Planning Advice Officer (Appendix 4). This brief required a staged approach to the work to include an archaeological assessment and evaluation by geophysical survey followed by building recording and analysis to supplement the English Heritage building record previously undertaken in 2001 and mitigation recording of any below-ground archaeological deposits encountered during the works.

HE Projects was commissioned by Caroline Wheeleker of Linden Homes Ltd to undertake the staged works set out in the brief. A Written Scheme of Investigation was prepared by Nigel Thomas of HE Projects (Appendix 5). The first stage of work set out in the brief (archaeological assessment to include the results of a geophysical survey) was carried out by HE Projects (geophysical survey undertaken by GSB Prospection Ltd) culminating in an assessment report (Shepherd, 2011). This report sets out the results of the second stage of work including the historic building record and archaeological watching brief.

2.2 Aims

The aims and objectives for the second stage of works were to:

- To obtain a full archaeological record of the site prior to alterations.
- Inform whether original structure and/or architectural detail should be retained, especially where these matters are subject to the approval of 'details' conditions in consent 07/01971.
- Characterise and describe the significance of the tanning and lime pits around the site and develop a strategy for their conservation to inform the development of the specification required by condition 32 of 07/01971.
- Record the remains of any archaeological deposits encountered during groundworks.
- Create a more detailed building record of the industrial structures proposed for alteration or demolition.

2.3 Methods

All recording work was undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording.* Staff followed 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.

Stage 2 included undertaking a controlled topsoil strip of the area to be developed, including the access roads and spaces for the new housing along with a building record of all historic buildings and structures within the development area.

2.3.1 Archaeological watching brief

On 7/10/2011 HE Projects undertook a watching brief during a vegetation strip for the control of slow worms on the site. The method involved the removal of surface vegetation from the areas around the edges of the field immediately south of the main tannery complex with a mechanical excavator equipped with a toothed bucket. The location of the area covered by the watching brief is shown on Figure 7. Since the work was not completed in a single day and the machining only involved disturbance to topsoil and modern dumps of material, the strip was continued the following day without an archaeologist present (this area is also shown on Fig 7).

Following on from the vegetation strip, topsoil stripping under archaeological supervision was carried out in stages across the majority of the development area (Fig 6). The work was carried out using a machine fitted with a wide toothless bucket. Where significant remains were encountered the site archaeologist excavated and recorded them appropriately. The locations of stripped areas along with any features identified were plotted on a base plan (see Fig 8). All archaeological contexts were recorded on HE pro forma context recording sheets. A photographic record was maintained throughout and all artefacts recovered were retained.

2.3.2 Historic building record

The fieldwork undertaken conformed to an English Heritage Level 3 survey (see English Heritage 2006). It comprised a walk-over, photographic survey and the production of some measured floor plans. Analysis of the building fabric was undertaken on site (recorded as notes). Measured information and detail, as appropriate, was added to copies of existing measured drawings.

The photographic record comprised:

- General views.
- Internal and external elevations.
- Examples of structural and architectural detail.

The principal photographic record comprised black and white photographs taken using a 35mm camera on fine grain archive quality film. A metric scale was included in all archive shots where possible.

Supporting colour photographs were taken with a digital camera for illustrative use.

2.3.3 Post-fieldwork

The site archive was prepared. This included:

- Washing and cataloguing of finds.
- Processing of environmental samples.
- Preparation of finished measured drawings.
- Archiving of drawings, photographs, paperwork and digital files.
- Production of this report.

3 Location and setting

The site of the proposed development lies on largely south facing land within a tributary valley of the upper Fal river system and within the historic core of Grampound (Figs 1 and 2). The village of Grampound is medieval in origin and is characterised by the long medieval burgage plots that run back from the road frontage dividing the properties. The site occupies several medieval burgage plots which became tanning yards during the 18th and 19th centuries. The southern part of the site, where the burgage plot boundaries have been removed, contains four fields, one of which (Field 1) is part of the Manor Tannery which closed for business in 2000. Prior to development works three of the fields (Fields 2, 3 and 4, see Fig 6) were being used as pasture for cattle. The fields generally slope north to south and have views across the valley to the south-west. The majority of the tannery buildings which lie to the north of field 1 with a few located in the southern part of this field adjacent to the stream date from the 18th century through to the 20th century. All of the buildings became disused in 2000 when the tannery closed.

To the north is Fore Street, the A390, the main road through Grampound from Truro to St. Austell. The site is bordered to the east by Bosillion Lane and to the west by Creed Lane.

Field 1 is a 1.23 hectare field approximately 150m long by 88m wide situated directly south of the tannery buildings. It is derelict land not genuine pasture and has a gentle gradient from the north to the south. A quarry is located in the south-east corner and a track runs down the middle of the field from north-south.

Field 2 is a narrow pasture field with a gentle gradient from north to south. It covers approximately 0.45 hectare with an average length of 120m by 45m wide. It lies to the north of field 3, to the east of field 1, and to the west of field 4

Field 3 is a 0.26 hectare steeply sloping pasture field: its length is approximately 165m and its width 40m. There are two slight terraces on its western side and banks towards the south where a small stream runs from east to west within the field. The stream runs into the limes complex (of the former tannery) beyond the field's south western border. It lies to the east of field 1 and to the south of field 2.

Field 4 is a 0.8 hectare pasture field running east to west. It is approximately 156m long and 68m wide. It has a gentle gradient from the north to the south and its southern boundary is noticeable for the mature oak trees growing along its length. It lies to the east of field 2.

In terms of Historic Landscape Characterisation the site lies within Anciently Enclosed Land, that is, the agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Anciently Enclosed Land has either medieval or prehistoric origins (Cornwall County Council 1996). The fields in the project area are likely to have been of medieval origin.

3.1 Geology

The site lies within an area that marks the transition between the Gramscatho group of mudstones and sandstones and the Grampound formation of inter-bedded siltstones and mudstones both laid down during the Devonian period. What is generally good quality pasture land is occasionally interspersed with shillet outcrops close to the surface.

4 Designations

The houses fronting Fore Street which are associated with Manor Tannery are all listed buildings. Within the site itself buildings 10, 12 and 14 are all Grade II listed buildings.

The majority of the former tannery buildings lie within the Grampound Conservation Area. The site is also included as part of an Area of Great Landscape Value (AGLV).

5 Site history

Grampound is a medieval settlement. It grew out of the Borough of Ponsmur, part of Tybesta manor, probably as a result of its importance as a crossing point on the upper reaches of the River Fal (Bane and Oliver 1998). The town had grown up around the bridge on both sides of the river in a fairly standard shape for the Cornish medieval period with dwellings arranged along either side of a linear track or road (Fore Street). Associated with these dwellings were the distinctive long and narrow parcels of land, extending to the rear of each property, known as burgage plots. These plots are well preserved in Grampound as late as the Tithe survey (in the 1840s, Fig 3) and can still be identified in parts of Grampound today. By the time that John Norden undertook his survey of Cornwall in 1610 his 'manuscript map of Cornwall and its nine hundreds', listed Grampound as a market town within Powder hundred, as significant as Tregony, Fowey, Lostwithiel and Truro. As with many post-medieval market towns Grampound had its own tan-yards and the history of these yards has shaped the landscape around what was until recently the Manor Tannery (Shepherd 2011).

A lease dated 1712 gives details of one John Croggon, who started tanning in Grampound in 1712, possibly in association with one Peter Hearle whose family had run a tannery in Grampound since the mid-17th century. In 1789 Samuel Croggon went into partnership with his cousin Thomas Croggon as they set up a new tannery on the present site, digging tan pits in the Manor House orchard. This partnership was dissolved within a few years and Thomas bought-out Samuel's interest in the Manor orchard tan yard. Samuel, however, retained the house that fronted the property. In 1812 Samuel started a new tannery on an adjacent site, to the east of the Manor orchard tannery. Samuel's tannery is now referred to as Wellington's Yard, named after a subsequent owner, and forms the eastern part of the present upper yard. In addition to the Manor orchard tannery and Wellington's Yard, there was a third tannery, known as Forster's Yard, occupying a plot of land adjoining the western side of the former. A Mr Richard Forster operated this third tannery (Jones 2001).

In the early 19th century Thomas Croggon, at the Manor orchard tannery, specialised in leather for dressing, much of which was shipped to London from the nearby harbour at Charlestown. An area at the bottom of Grampound hill was used for the drying sheds and became known as Bermondsey, after the London leather market. By this time the firm were buying hides from the Argentine and Holland, as well as from local sources. Thomas Croggon had a large family, including two sons, Josiah and Henry. Josiah joined his father in the tannery, while Henry was established as a currier in Grampound. Josiah took over from his father. In 1837 Josiah and his father leased 'Forster's Yard' from Thomas Forster. This tan yard was in a poor state of repair and a condition of the lease was that Josiah put it back into good order. This yard was only used for currying. In the mid-19th century Samuel Croggon's son Michael was still tanning in Wellington's Yard, on the eastern side of the Manor tannery, although the two businesses enjoyed a co-operative relationship. Michael remained unmarried and in 1863 he sold the yard to Abraham Wellington. In the 1850s Josiah's only son William joined him in the business. Despite general progress in tanning techniques that were developed during the mid-19th century, namely the introduction of stronger tanning agents, the tannery, at the hands of Josiah, remained conservative. It continued to produce oak-bark leather and shaved hides for dressing, the currying side of the business being developed separately in Forster's Yard (Jones 2001).

The firm of J. (Josiah) Croggon & Son was formed in 1845 and in 1847 Josiah brought the freehold of Forster's Yard. In 1880 Josiah's son William bought the freehold of the Manor tannery. Josiah Croggon died in 1889 and in his will he left his interest in both yards to William. William introduced the production of sole leather using Valonia, a type

of acorn husk imported from Turkey, as a tanning agent. Valonia was used for producing a hard-wearing sole leather as opposed to a traditional oak-bark leather. In 1906 William Croggon purchased Wellington's Yard and that too became part of the Manor Tannery. William Croggon died in 1919 and the business was taken over by William's son Leonard Croggon, and subsequently by his son Ian Leonard Croggon. During the 1920s and 1930s production concentrated increasingly on sole leather, as the demand for equestrian leather declined as a result of the decreasing number of horses in use on the roads. However, currying continued as a smaller aspect of the business until it ceased in the early 1950s. The Croggon leather has been considered amongst the finest for specialised uses such as hand-made shoes and riding boots, and leather for orthopaedic use. The quality of the leather was put to the ultimate test when it was selected by the archaeologist Tim Severin for the construction of his leather boat, St Brendan, which he sailed across the Atlantic Ocean in 1976, re-enacting the fabled voyage of St Brendan (Jones 2001).

The history of three of the fields that make up the development area is relatively straightforward. The areas that comprise Fields 2, 3 and 4 have remained relatively unchanged since the 1841 tithe map was created (Fig 3). On the First and Second Editions of the Ordnance Survey (Figs 4 and 5), these three fields remain unchanged; although a ditch shown running along the northern edge of Field 2, and along the southern edge of Field 3 on the First Edition OS, had disappeared by *c*1907. Between *c*1907 and the present day the northern half of field 4 was redeveloped with an access road created from Bosillion Lane and the erection of five private dwellings. Development also encroached to the northern boundary of Field 2 and the area referred to on the Tithe map as apportionment 133a was incorporated (Shepherd 2011).

Field 1, however, has had a far more eventful history. This is largely as a result of changing land use since the late 18th century associated with the development of three tan yards and latterly the combined Manor Tannery (Shepherd 2011).

In the 1841 Tithe survey (Fig 3) the present site of Field 1 incorporated eight different apportionments. The most significant of these were apportionment numbers 38, 112a, 40 and 195. In 1841 these all appear as remnant burgage plots, though showing adaptation. These plots extend from the back of the three former tanneries that existed along the main Truro to St. Austell road (Shepherd 2011).

In 1837 the proprietors of the Manor Orchard Tannery, Thomas Croggan and his son Josiah Croggan, purchased the lease on the tannery to the west. This tannery, subsequently known as Forster's Yard, was amalgamated into the business and with it the associated lands. In 1847 Josiah Croggan bought the freehold for Forster's Yard, and as part of the sale, committed to the repair of the existing buildings (Jones 2001, 11).

Between 1841 and the First Edition of the Ordnance survey in *c*1880 (Fig 4), the complex known as The Limes was developed at the southern edge of the development area. This area was used for the initial preparation of hides for tanning. Whilst The Limes themselves are not within the survey area, it is likely that they have a significant impact on the historical use of the lower part of the site. Jones recorded that the water wheel installed as a part of The Limes complex was used as a power source for activities in the upper yards (Jones 2001, 14)

At some point during this period of redevelopment, the orchards and gardens associated with both tanneries were rationalised, and by *c*1880 an area that had comprised four apportionments (Tithe apportionment numbers 37, 38, 195 and 196, Fig 3) had been amalgamated into a single field (Shepherd 2011).

In 1880 Josiah Croggan's son, William Croggan, bought the freehold of the Manor Tannery (Jones 2001, 17). Between this point and the publication of the Second Edition Ordnance Survey in *c*1907 (Fig 5), Tithe apportionment number 40 was also incorporated into this field (Shepherd 2011).

The tannery to the east of Manor Orchard Tannery had also undergone changes during this period, though these had far less impact on the structure of the fields. The original owner of this tannery was a cousin to Josiah Croggan, Samuel Croggan (Bane and Oliver 1998). Samuel also developed a limes area and associated structures at the south end of the site (Jones 2001, 19). On the 14th August 1863 Samuel's son Michael Croggan surrendered the lease for the *"tanyard with meadow, field or close of land, orchard and garden at Grampound, being 1 acre 2 rods."* (CRO document X744/11), to Abraham Wellington.

In 1906 William Croggan bought Wellington's Yard, and the three tanneries were finally amalgamated, though on the *c*1907 Ordnance Survey map (Fig 5) the boundary between the two fields remains in place. It is unclear when this boundary was removed, but in recent years the two fields have become one and a track now runs along the path of the removed boundary.

6 Archaeological results

6.1 Watching brief during vegetation strip

During the watching brief the top of the footings of a short length of wall (1) were uncovered at the west end of the limes shed (building 18) at the southern end of the site. This wall was aligned north-south and measured approximately 5m long by 0.4m wide and comprised unbonded concrete blocks (Fig 7). At the eastern end of Building 18 (although not *in situ*) and lying on the surface was a large, shaped, granite block measuring roughly 0.8m by 0.8m by 0.5m high with iron bolts attached to the top face and a curved base (2) (Figs 7 and 96). It is possible that this was a stay to support the drive shaft carrying power from the water wheel at the southern end of the site to the oak bark mill in the northern building complex. In the north-eastern part of the field an area of slate rubble (3) was exposed measuring approximately 3m in diameter at a location previously occupied by two small buildings shown on the *c*1907 OS map (Fig 5).

No finds were recovered during the course of this work.

6.2 Watching brief during topsoil strip

(Carl Thorpe)

The results from the project are presented below by field number (see Fig 6 for field locations); these were allocated during the archaeological assessment (Shepherd 2011).

Each field initially had an access road cut across it that was on average 8m wide. Once the access road had been constructed the remaining topsoil within the fields was stripped. This occurred in fields 1, 2 and 4. Field 3 was left untouched and was not included as part of the watching brief. The results of the watching brief are presented within each of the following field summaries.

Retained finds are described in Appendix 1, Environmental samples in Appendix 2 and detailed context descriptions in Appendix 3.

For feature locations see Figure 8.

6.2.1 Field 1

(See Fig 8)

This field roughly rectangular in shape, measured approximately 150m long by 88m wide and was situated directly south of the tannery buildings. The ground was derelict rough ground with very uneven surfaces. A track ran down the centre of the field and turned to the west about three quarters of the way down the field before exiting at the south-west corner.

The soil profile across this field consisted of 0.05m of turf and topsoil overlying 0.25m of grey-brown clay loam, and 0.05m of light grey-brown clay. Decayed natural shillet bedrock lay at the base. This soil profile was recorded over the entire field though combined topsoil and subsoil overlying bedrock did vary in depth from 0.18m at the northern (uphill) to a maximum of 0.7m at the southern (downhill).

At a point some 20m south of the north-east corner of the field and approximately 18m from the eastern field boundary three parallel trenches ([170], [172] and [174]) were recorded. The long axis of the trenches were orientated north-west to south-east and each was set 2m apart.

The southern most trench, [170] was 1.5m wide, with a square shaped termination seen at its eastern end. A length of 3.7m was recorded before it disappeared into the baulk of the excavation. It was filled with a grey-brown clay loam (171) that contained modern concrete block fragments, other building debris, and plastic sheeting.

The middle trench [172] was 1.5m wide and also had a square shaped termination at its eastern end. A length of 4m was recorded. It was filled with a grey-brown clay loam (173) that contained modern concrete block fragments and a large quantity of roofing slates.

The northernmost trench [174] was again 1.5m wide, and had a square shaped termination at its eastern end. A length of 4.3m was recorded. It was filled with a grey-brown clay loam (175) that contained re-deposited yellow-brown shillet and clay, cinders and ash, white lime mortar, modern concrete block fragments, and a large quantity of roofing slates.

All three trenches had been cut from the current ground surface and had the appearance of being modern machine cut trenches. No buildings or features are portrayed in this location, so it is unlikely that they represent foundation trenches. It is possible that these may have been dug to bury the material from a demolished building, or were geological test trenches. Because of their modern appearance these trenches were not investigated further.

Running centrally down the field in a north-north-east to south-south-west direction for the entire length of the stripped area were a parallel pair of shallow ditches [178] and [179] set approximately 1.2m apart. These ditches had run along either side of a removed field boundary (180). The eastern ditch [178] was 0.5m wide and filled with (192) a red, grey-brown clay loam. It was very shallow, with a maximum depth of 0.15m. The western ditch [179] was 0.5m wide and filled with (193) a red, grey-brown clay loam. It was very shallow, with a maximum depth of 0.1m. Both ditches appeared to have a shallow U-shaped profile. The space between the ditches was marked by less weathered or solid shillet where the overlying bank (180) had preserved it.

This boundary was only traced for a length of approximately 50m across the centre of the field as it had been truncated at both its northern and southern ends. Despite the truncation this feature was detected by the geophysical survey as Feature D (GSB Ref 2011/49). No dating evidence was found for this boundary, although it is likely to be a post-medieval field division.

On the western side of boundary (180) a small ditch [181] running west-north-west to east-south-east was recorded abutting ditch [179]. This ditch was also 0.5m wide and filled with a grey-brown clay loam (194). No dating evidence was obtained.

A small pit [182] was encountered close to the southern end of boundary (180), at a point 1m west of ditch [179]. Sub-oval in plan, it measured 0.45m by 0.3m with the long axis orientated west to east. It had a steep-sided U-shaped profile and was filled by a grey, black-brown clay loam (183) that contained some stone fragments and flecks of charcoal. No artefacts were recovered.

In the northern quarter of the field, close to the western boundary a second small pit was recorded. This pit [184] had a diameter of 0.2m and was up to 0.2m deep. The

sides of the cut were steep and the base was flat. It was filled with a grey-brown clay loam (185) that had flecks of charcoal within it. No artefacts were recovered.

At the north-west corner of the area stripped just south of the tannery buildings, a curvilinear ditch was recorded. This ditch [186] was 1m wide and reached a maximum depth of 0.15m. With shallow sloping sides and a flat bottom this ditch was filled with an organic rich black, grey-brown silty clay (187) that contained many plant roots. Sherds of non diagnostic white china (19th to 20th centuries) were noted within the fill but not recovered. This ditch was traced for a distance of *c*12m, the initial 6m running in an approximately southern direction away from one of the tannery buildings before curving westwards and exiting the limits of the site.

Approximately 10m west of boundary (180) and running roughly parallel to it a large ditch [188] was recorded. Identified as feature F on the geophysical survey (GSB Ref 2011/49) (Fig 97) this ditch was on average 2m wide and reached a maximum depth of 0.35m. The ditch was traced for a length of *c*50m; it was, however, truncated at its northern and southern ends. It had fairly steep, convex sides with a flat bottom. Three fills were recorded. The upper deposit (191) consisted of mixed dark grey-brown, and red-brown clay loams. This layer contained some roots and produced five sherds of medieval pottery and three sherds of post-medieval pottery. This overlay a deposit (190) of grey-brown clay loam approximately 0.2m thick that contained some shillet fragments and charcoal flecks. The bottom deposit within the ditch (189) consisted of yellow, grey-brown silty clay with a few shillet fragments that was up to 0.1m thick.

It is possible that this feature is a former track or hollow-way providing access across the burgage plot.

Apart from a modern iron water pipe that ran across the north-western end of the field roughly from west to east *c*20m south of the nearest tannery building, no other archaeological features or finds were recorded within this field.

6.2.2 Field 2

(See Figs 8 and 9)

This irregular shaped field measured approximately 120m long by 45m wide and lay to the east of Field 1. This field was used as pasture prior to the development.

The soil profile across this field consisted of 0.05m of turf (136) overlying 0.25m of grey-brown clay loam topsoil (137), and 0.05m of light grey-brown clay overlying decayed natural shillet bedrock (195). This soil profile covered the entire field though it varied in depth from 0.25m to the north (uphill) to a maximum of 0.7m to the south (downhill).

The eastern extent of Field 2 was marked by a stone-faced earth bank that ran from north-east to south-west. A breach had been created in this bank for the access road into Field 4. On the access road this boundary was marked by a parallel pair of shallow ditches that were approximately 2m apart. The eastern ditch [196] was 1m wide and infilled with a red, grey-brown clay loam (197). The western ditch [133] was on average 1.2m wide and infilled with a red, grey-brown clay loam (198). Neither ditch was sectioned. The space between the ditches was marked by less weathered or solid shillet where the overlying bank had preserved it. No dating material was found for this bank which appears on the 1841 tithe map.

Approximately 5m west of the field boundary, the terminal of a ditch that ran in a north-west to south-east direction was recorded. The ditch [134] was 0.8m wide, with a U-shaped profile that reached a maximum depth of 0.25m. It was filled with a red-brown silty clay containing angular stones and at least one fragment of burnt granite (135). No dating material was obtained.

An irregular shaped pit [144] was recorded 31m to the west of ditch [134]. This lay close to the northern edge of the access road. It was roughly oval shaped, 1.5m long and 0.5m wide with the long axis orientated north to south. It had an asymmetric V-

shaped profile, 0.15m deep, and was filled with a red, grey-brown clay loam with occasional charcoal flecks (145). No artefacts were recovered, and this had the appearance of a possible animal burrow.

A large circular pit [146] was recorded at the junction of the access road some 14m west of ditch [134]. This pit, cut into the natural bedrock had a shallow flat bottomed profile that reached a maximum depth of 0.15m. It was filled with dark grey-brown clay loam (138) that was rich in charcoal. The bedrock forming the base of the pit had been discoloured and burnt a red, orange-brown colour. No artefacts were recovered.

Lying some 7m to the south-east of pit [146] was a sub-oval pit [150]. This measured 1.5m x 0.5m with the long axis orientated north-west to south-east. The profile was steep-sided and flat bottomed reaching a depth of 0.28m. It was filled with a dark red-brown silty clay (149). This fill contained modern white glazed china (not retained).

Fourteen metres south of pit [146] lay a small oval pit [147]. This was 0.7m x 0.6m and orientated north-east to south-west. It had a U-shaped profile some 0.17m deep. Two fills were recorded. The lower fill (148) was a red, grey-brown silty clay with some shillet fragments and flecks of charcoal. A maximum thickness of 0.07m was recorded. This was overlain by up to 0.14m of grey-brown clay loam with numerous large charcoal fragments (139). A lens of charcoal was also noted lying on the interface between the two fills. No artefacts were recovered.

A group of eight pits/postholes lay 5m to the south-west of pit [147] (see Figs 9 and 10). These lay in an inverted L-shaped configuration. Three pits/postholes [156], [157], and [158] formed the upper arm orientated north-east to south-west, while four pits/postholes [155], [160], [161] and [162] formed the lower limb orientated north-west to south-east. A single pit/posthole [159] lay just inside the return.

Pit/posthole [156] was circular in shape with a diameter of 0.6m. It had a U-shaped profile 0.17m deep and had two fills. The lower fill was a red-brown silty clay (163) some 0.03m thick, overlain by up to 0.15m of grey-brown silty clay heavily mottled with charcoal (151). Pit/posthole [157] 0.05m to the south-west was of similar shape but had a diameter of 0.42m and reached a depth of 0.18m. It was filled with grey-brown silty clay heavily mottled with charcoal (152). Pit/posthole [158] lay 0.05m southwest of [157]. Circular in shape with a diameter of 0.52m it had an irregular profile of 0.15m depth. It was filled with grey-brown silty clay heavily mottled with charcoal (153). No artefacts were recovered from any of these pits/postholes.

Pit/posthole [155] was sub-oval in shape measuring 0.4m x 0.3m orientated north-west to south-east. It had an irregular base and was *c*0.12cm deep. It was filled with (140), pink-brown clay containing charcoal fragments. Some 0.25m to the south-east lay pit/posthole [160]. This was sub-circular in shape, with a diameter of 0.5m. It was steep-sided, flat bottomed, and filled with a dark brown-grey silty clay with frequent charcoal fragments (141). Pit/posthole [161] was a further 0.15m to the south-east. Oval shaped, it measured 0.7m x 0.53m and was aligned north-east to south-west. It was a shallow U-shaped profile of 0.1m depth. This pit was filled with dark brown-grey silty clay mottled with charcoal and containing numerous shillet fragments (142). Finally pit/posthole [162] lay 0.36m to the south-east. This was sub-circular in shape, 0.6m in diameter, with a U-shaped profile some 0.15m deep. Dark pinkish brown silty clay mottled with charcoal, and containing the occasional shillet fragment filled this pit/posthole (143). No artefacts were recovered from any of these pits/postholes.

At the return where the two lines of pits/postholes described above met at right angles another pit/posthole was recorded, [159]. This was circular in shape with a diameter of 0.4m. It was U-shaped in profile, some 0.1m deep and infilled with a dark grey-brown silty clay mottled with charcoal (154). No artefacts were recovered.

It is not known what this unusual pit/posthole grouping represents. It is possible that it is the remains of a structure. The date is also unknown.

Thirty metres south-west of this pit/posthole group, a shallow pit [165] was uncovered close to the western field boundary. Circular in shape with a diameter of 1m, it was a very shallow depression reaching a maximum depth of 0.07m. It was filled with a charcoal-rich grey-black clay loam with fragments of burnt red-brown clay (164). The natural bedrock had been discoloured by heat at the base of this pit indicating *in situ* burning. No artefacts were recovered.

Approximately 10m from the north-western corner of the field a modern water pipe trench was recorded running north to south across the access road corridor. The flat bottomed trench [176] was 0.8m wide and reached a maximum recorded depth of 0.15m. It was filled by a dark grey-brown clay loam (177). Modern white china was recorded in the fill but not retained.

6.2.3 Field 4

(See Fig 8)

This irregular shaped field runs from east to west and measures approximately 156m long by 68m wide and lies to the east of Field 2. This field was used as pasture prior to the development.

The soil profile across this field consisted on average of 0.05m turf overlying 0.2m of grey-brown clay loam (100), and below this 0.25m of light grey-brown clay with decayed natural shillet bedrock at the base (101). This soil profile covered the entire field with only slight variation. Finds recovered from the topsoil (100) included one prehistoric flint, four sherds of medieval pottery, one fragment of medieval ridge tile, 4 sherds of post-medieval pottery and five fragments of post-medieval bottle glass.

At a point about 60m from the eastern side of the field and running roughly in a north-easterly direction from the southern field boundary a large ditch was recorded [102] (Fig 11). This ditch was 2.5m wide and reached a maximum depth of 0.8m. It had a very irregular profile with almost stepped sides with a flat bottomed base. The eastern side of the ditch was slightly steeper. Three fills were recorded. The primary fill (105) consisted of compacted pinkish brown silty clay containing frequent stone up to 0.4m thick. This was overlain by greyish yellow silty clay (104) up to 0.38m thick and up to 0.25m of reddish brown friable silty clay (103) that contained very few stones. No artefacts were recovered from this ditch.

This ditch was traced for a length of some 20m from the southern field boundary. Unfortunately its course could not be followed across the whole field due to machine operations and the creation of a spoil heap obscuring the evidence. This ditch was not detected in the geophysical survey (GSB Ref 2011/49).

A ditch [106] was recorded in the south-eastern part of the field running roughly west to east (Fig 12). This was 'ditch B' recorded by the geophysical survey (GSB Ref 2011/49). This ditch was 1.2m wide and had an asymmetrical U-shaped profile 0.5m deep with the northern side being the steeper. Two fills were recorded. The primary fill (108) was a red-brown silty clay with numerous shillet fragments and some stones up to 0.3m in size. This deposit was up to 0.2m thick. It was overlain by up to 0.35m of red-brown loose silty clay with frequent small shillet fragments (107). No artefacts were recovered.

The eastern end of ditch [106] joined and was contemporary with another ditch running roughly north, north-east, to south, south-west at a point *c*25m from the eastern boundary of the field. This ditch [120] was 1m wide, and had a wide V-shaped profile that reached a maximum depth of 0.3m (Fig 16). It was filled with red-brown silty clay with shillet fragments concentrated near the centre, close to the base (121).

A section excavated at the northern end of ditch [120] proved to have an irregular profile. It was 1.3m wide and 0.43m deep. Three fills were recorded. The primary fill was a dark yellow-brown clay with frequent shillet fragments (131) up to 0.18m thick. This was overlain by up to 0.25m of (121). Some possible bank material consisting of

light yellow-brown clay (138) up to 0.08m thick was noted on the eastern side. No artefacts were recovered. This was identified by the geophysical survey as ditch A (GSB 2011/49).

At a point 29.5m from the north-west field boundary, and 12m from the south-west hedge boundary a sub-circular burnt spread (109) was uncovered. Sitting directly on top of the natural shillet, this was a deposit of charcoal rich pink-brown clay with frequent burnt shillet fragments and large pieces of charcoal (109) which was up to 0.07m thick. The base of the shillet had been reddened by the affects of heat indicating that burning had occurred *in situ*.

Some 22m from the north-west field boundary, and 15m from the south-west hedge boundary a sub-circular shaped pit was recorded [110] (Fig 13). This had a diameter of 1.1m and a shallow concave profile that reached a depth of 0.15m. The sides were steeper to the north while the base was uneven, with two possible root holes *c*0.1m in diameter. The bedrock at the base of the cut had been reddened indicating that burning had occurred *in situ*. Two fills were recorded. The primary fill (112) consisted of black-brown charcoal rich silty clay with some larger fragments of charcoal, and burnt clay. This primary fill appeared as a bowl-shaped hollow and was filled by a reddish-brown silty clay containing a few stones (111). No artefacts were recovered from either of the fills.

A small ditch [113] (Fig 14) was recorded running from north-west to south-east across the western side of the field running parallel with, and some 12m from the south-west field boundary. Four sections were cut across this ditch which varied in nature along its length. The first section at the north-west end of the ditch had an asymmetric U-shaped profile some 0.8m wide and 0.25m deep and was filled with yellow-brown silty clay with numerous shillet fragments (114). In the second section the ditch was 0.5m wide and had a flat bottom reaching a depth of 0.25m. Two fills were noted, a primary fill of tightly packed fragmented shillet in a grey-brown silty clay (115) up to 0.15m deep, overlain by up to 0.1m of (114). In the third section the ditch had a V-shaped profile, 0.55m wide and was 0.2m deep. Two fills were recorded. The primary fill (117) consisted of yellow-brown silty clay up to 0.1m thick which contained one sherd of medieval pottery and was overlain by up to 0.1m of dark red-brown silty clay with a few shillet fragments (116). Finally in the last section to the south-east the ditch was steep-sided with an irregular flattish bottom 0.7m wide and 0.45m deep. The primary fill up to 0.3m thick was (117) overlain by 0.15m of dark yellow-brown silty clay (124).

Close to the centre of, and some 4m from the eastern field boundary a sub-circular bowl shaped pit [118] was recorded (Fig 15). It had a diameter of roughly 1.1m and reached a depth of 0.15m. It was steep-sided on its north side, and shallow to the south. It was filled with dark reddish brown silty clay with numerous charcoal fragments (119). The basal bedrock had been reddened by heat showing that burning had occurred *in situ*. No artefacts were recovered.

A short length (some 4m) of ditch [122] running from north-east to south-west was recorded lying between the junction of ditches [106] and [120]. It was approximately 0.5m wide and filled with a dark red-brown silty clay (123). This ditch was not excavated.

At the north-west corner of the field running parallel to the south-west field boundary a ditch was recorded [126] (Fig 17). The ditch was 2.6m wide, 0.5m deep, with a flat base sloping up to the north. The side was steep cut to the south-west, and convex to the north-east. Four fills were recorded. The primary fill consisted of red-brown silty clay with occasional shillet fragments which was up to 0.25m thick (127). This was overlain by up to 0.15m of dark grey-brown greasy silty clay (128) which contained one sherd of medieval pottery and many 19th and 20th century artefacts including glass, brick, white china, roofing slate and some animal bone. An iron pipe (of 0.1m diameter) had been laid into a trench cut from the base of this layer that followed the line of the ditch. The pipe trench was 0.17m wide and 0.2m deep and had been infilled with the

re-deposited primary fill of the ditch (127). This was overlain by a layer (up to 0.06m thick) of lime mortar mixed with roofing slates and stone (129). The top fill (130) which was up to 0.12m thick consisted of dark grey-brown silty clay with a few stones and some lenses of re-deposited natural and lime mortar fragments.

At a point some 30m west of the eastern boundary, and 32m south of the northern field boundary a sub-circular pit was recorded. This pit [166] was a very shallow bowl shape that had a 1m diameter and was 0.03m deep. The base was very irregular and uneven. The shillet bedrock had been reddened and heat affected indicating that burning had occurred *in situ*. This pit was filled with a dark grey-brown, black clay loam with numerous charcoal fragments and burnt stone (167). There were no artefacts.

About 13m to the north-west of [166], pit [168] was located. This proved to be another sub-circular shallow bowl shaped pit with a slightly steeper edge on the eastern side. It had a diameter of 1.5m and reached a maximum depth of 0.07m. It was filled with a dark grey, brown-black clay loam with numerous charcoal fragments and burnt stone (169), and had also been burnt *in situ*. No artefacts were recovered.

7 Historic building record

(see Fig 18 for building locations)

The building record was carried out in order to supplement the previous building record undertaken by English Heritage (Jones 2001). The English Heritage record included a study of the history and development of the site along with a study of tanning processes and descriptions of all the buildings 1-18. It also included ground floor plans of most of the buildings and a digital photographic record. Floor plans for buildings 1, 2, 15 and 18 were not completed and elevation drawings were not produced as part of the study.

This supplementary phase of recording has allowed for the completion of annotated elevation drawings, the production of an archive photographic record and for the completion of the remaining floor plans within the development area. Buildings 2, 16 and 17 were not included within the development area, and therefore have not been included in this study.

7.1 Brief overview of buildings

The following extracts are taken from the English Heritage architectural investigation report (Jones 2001).

'The tannery incorporates traditional tannery buildings originating from three separate tanneries that were known as Wellington's Yard, the Manor Tannery and Forster's Yard. These were developed on adjacent sites during the 18th and 19th centuries and were amalgamated in stages during the late 19th and early 20th centuries, thereby forming the present tannery site' (Jones 2001).

'In its present form the tannery is concentrated into two areas; a larger complex where the tanning and finishing took place and which is referred to as the 'upper yard' and a far smaller complex known as 'the limes', where the liming and pre-tanning processes were conducted. The limes yard is located at the foot of the hill where it has direct access to water supplied by a tributary of the River Fal. As with the upper yard, it incorporates the facilities of more than one tannery, one limes yard originating from the former Wellington's Yard tannery, the other from the tannery in the Manor House grounds. The form and layout of the entire site, including the buildings of all three tanneries, is defined largely by the adaptation for industrial use of the burgage plots that formed the back gardens of houses fronting Fore Street' (Jones 2001).

'The surviving buildings range in date from the 18th century to the late 20th century and probably incorporate some walls that are of earlier origins, including possible boundary walls dividing the burgage plots. The tannery includes the following buildings

and pits; louvred drying sheds for leather and hair (the latter a by-product of the liming process); open-sided buildings accommodating pits associated with liming, bating, tanning and washing; open-air pits for liming and washing; an oak-bark and Valonia mill with associated warehouse; and a purpose-built currying house. There is also surviving line shafting and belt-drive pulley wheels associated with the oak-bark mill, and the currying shop retains its distinctive long window lighting a substantial 'dressing table' on the first floor, where the leather was finished with vegetable dyes and oils. The sheer number of drying sheds, with their extensive louvred elevations, serves to illustrate the long duration of the drying process and the extent of production. There are also a number of significant items of specialist machinery peculiar to the tanning trade which are of particular note, especially rolling and plating machines and a 19th-century striking machine located in one of the drying sheds' (Jones 2001).

7.2 Building 1

(Figs 18, 19, 28, 29, 30)

Building 1 was constructed in 1899-1900 as a new currying shop at a time when all three yards were combined to form a single tannery. It adjoins an earlier currying shop (building 2) to the south. It is a two-storey building constructed from brick. The roof is hipped at the northern end and has a sized slate roof covering with ceramic ridge tiles. The front elevation faces east onto an access lane running from Fore Street through what was once Foster's Yard.

Exterior

Both the west (rear) and north wall are constructed on top of existing stone property boundary walls and the south wall adjoins the pre-existing north gable end of building 2. The front (east) elevation (Fig 19 and 28) has two double cart house doors in the northern half of the ground floor giving access to the cart house. To the south are two sash windows and a door opening giving access to a ground floor clerk's office and stairs to the first floor workshop. All the openings on the ground floor have segmental brick arches over. At first floor level there are two sash windows, one at either end of the elevation, and between these a long row of casement windows lighting the workshop area.

Interior

Internally the building is divided into two rooms on the ground floor (cart house to north, office to south) with a staircase at the southern end leading to the first floor which is also divided into two rooms. The workshop commands most of the space on this floor but there is a small storeroom at the northern end.

The cart house on the ground floor has a tiled floor and a wooden rack attached to the rear wall. The former office to the south has a timber boarded floor in the east (front) half and a solid floor in the west (rear) half with a large stamping machine with an electric motor installed in the north-west corner (Fig 29).

In the workshop on the first floor (Fig 30) there is a large timber work bench running along the front wall lit by the casement windows. There are racks suspended from the ceiling for storage of leather items and leather samples are pinned to the walls. The room is divided off from the stairs by a timber planked partition wall with another dividing the workshop from the store room at the north end. The store room is lit by a single sash window in the east wall and contains modern steel racking and shelves.

7.3 Building 2

(Figs 18 and 28)

Building 2 was probably constructed in the 18th or early 19th century and was in use during the 19th century as a currying shop for Forster's Yard. It lies outside the development area and is currently in use as a house and was not included in the study. Building 1 adjoins it to the north (see Fig 28). It is a two-storey building constructed

from slate rubble on the ground floor and has rendered walls on the first floor. The roof is gabled and has a slate covering with ceramic ridge tiles. The front elevation faces east onto an access lane running from Fore Street through what was once Foster's Yard.

Exterior

Only the east (front) elevation was inspected at the time of the survey. This has been drastically altered in the mid 20th century when the building was converted to a house. An early photograph of this elevation shows that there were four door openings at ground floor level suggesting that it may have been originally designed as a stable. On the first floor there were a row of casement windows at the north end suggesting original use at this end of the first floor as a currying shop and the southern half of the first floor is shown as a louvered wall indicating original use as a drying loft.

Interior

Not inspected.

7.4 Building 3

(Figs 18, 19, 20, 31, 32, 33 and 34)

Building 3 was probably constructed in the 18th or early 19th century and is shown on the Tithe map of 1841 (Fig 3). It is a two-storey building constructed from slate rubble bonded with earth mortar on the ground floor and timber louvered walls on the first floor. The original function of the ground floor is not clear but the first floor was used as a drying loft. The roof is hipped at the northern end and has a 20th century fish scale tile roof covering with ceramic ridge tiles. The front elevation faces west onto an access lane running from Fore Street through what was once Forster's Yard. There is also a former access lane on the east side of the building (now built over).

Exterior

The front (west) elevation (Figs 19 and 31) at ground floor level has a single, original door opening in the northern half of the wall with stone steps leading to it and a single window opening in the southern half which is either an insertion or widening of an earlier opening. The north-west corner of the building has been removed and chamfered with concrete blockwork to allow easier vehicle access to the rear yard. The east elevation (Fig 19) has a central door opening at ground floor level and an original, small opening towards the south-east corner which is now blocked with concrete blockwork. There are no openings in the north wall and the south wall has now been incorporated into building 5.

Interior

Internally the ground floor has a concrete floor and the walls are lime-washed (Fig 32). The room space has been sub-divided longitudinally with a modern partition for protection from a heating or filter unit installed in the western half. The first floor (Fig 33) is a single open space now accessed via an inserted door opening at first floor level at the south-east corner from an upper floor link between buildings 3 and 4. The first floor was clearly used as a drying loft but was inaccessible at the time of the survey due to a rotted timber floor.

7.5 Building 4

(Figs 18, 34, 35, 36)

Building 4 was constructed in the mid 19th century as a northern extension of building 6. It is shown on the *c*1880 OS map (Fig 4). It is a two-storey building constructed from slate rubble bonded with earth and lime mortar on the ground floor and timber louvered walls on the first floor. The original function of the ground floor is not clear but the first floor was designed as a drying loft. The roof has a rag slate covering with ceramic ridge tiles.

Exterior

The west ground floor elevation is open sided with a central brick supporting pillar and faces onto a former access lane running from Fore Street through what was once Foster's Yard (now covered). The north and east elevations are not visible due to adjoining structures, and the south elevation is formed by the gable end of building 6 although there are surviving external stone steps here.

Interior

Internally the ground floor has a concrete floor and the walls are lime-washed. It is a single room space now used for storage and the first floor is supported by inserted concrete blockwork pillars and RSJs (Fig 34). In the north wall there is a row of eight brick-lined square recesses, possibly once used as keeping places. The first floor is a single open space now accessed via an upper floor link between buildings 3 and 4 and also from building 6 (Fig 36). There is an inserted door opening through to building 8 in the east wall. The first floor was clearly used as a drying loft but has been converted for use as a finishing and drying room. The floor boards have been cover with chipboard and there is a modern boarded ceiling. In the north-east corner of the room there is a machine with a name plate reading 'Howard Wilson and Son Ltd, Bootle, Liverpool' (Figs 35 and 36). There was a 19th century striking machine located on this floor between buildings 3 and 4 which had been removed by the time of the survey.

7.6 Building 5

(Figs 18, 20, 21, 37, 38, 39, 40)

Building 5 was constructed in the 1950s adjoining building 3 on its north side and incorporating part of an earlier (18th or 19th century) stone rubble building as a protruding annex on its west side bonded with earth and lime mortar with a modern corrugated roof covering. It also adjoins building 6 to the east. It is a single-storey building constructed from concrete blockwork on the ground floor and timber louvered walls on the first floor. The ground floor contains a series of tanning pits and the first floor (inserted in the 1960s) was used as a drying loft. The roof is single pitch sloping down to the west.

Exterior

The front (south) elevation at ground floor level is open sided with wire fencing. There are two window openings in the west elevation either side of the stone annex and at first floor level corrugated metal sheeting has been nailed to the wooden louvers on both the south and west elevations (Fig 37).

Interior

Internally the ground floor has a concrete floor and the walls are painted white. The single room space is open to building 6 at ground floor level, divided by a series of concrete blockwork pillars replacing the earlier granite pillars of building 6. There are seven deep, rectangular tanning pits, the four central ones lined with timber and the others lined with brickwork set in the concrete floor (Fig 38). A few hides are still scattered on the floor. At the north end of the room there is the cast iron frame of a machine, the rest has been removed along with its electric motor (Fig 39). The frame is marked 'Turner'. The first floor of the building is accessed from the stone steps associated with building 4 at the north end of the ground floor and from building 6 at first floor level. It is a single open heated loft space with pipes running around the walls and a timber planked floor (Fig 40). There are two ventilator fans suspended from the ceiling driven by belts from an electric motor and also wooden frames for drying hides.

7.7 Building 6

(Figs 18, 20, 21, 41, 42, 43, 44, 45, 46)

Building 6 was probably constructed in the 18th or early 19th century and is shown on the Tithe map of 1841 (Fig 3). It was one of the largest buildings on the site but was

substantially remodelled when building 5 was constructed adjoining it to the west and building 8b was constructed adjoining it to the east. It is a two-storey building constructed from sandstone and slate rubble bonded with earth mortar on the ground floor (north, east and south walls) and timber planked walls on the first floor replacing the earlier louvered walls. The original function of the ground floor was as a pit shed and the first floor was used as a drying loft. The roof is gabled and has a modern steel structure shared with building 8b.

Exterior

The south wall (Fig 21) is now the only complete external wall. This gable end is constructed from sandstone rubble bonded with earth mortar on the ground floor with a cob wall on the first floor much repaired with concrete blockwork. The short southern section of the west wall (Fig 20) has been rebuilt with slate rubble bonded with lime mortar and the former granite pillars along the rest of the length replaced with concrete blockwork pillars opening into building 5. The rear (east) wall on the ground floor is constructed from sandstone and slate rubble bonded with an earth mortar but has been lined internally with a concrete blockwork wall.

Interior

Internally the ground floor is divided into a small room at the south end and large room occupying the rest of the space. The large room (Fig 41) has a concrete floor in which there are now two large rectangular pits with four rockers powered by a crankshaft leading to an electric motor located on the first floor. These pits replaced earlier tanning pits. The small room at the south end of the ground floor has been partitioned off with corrugated sheeting to provide a boiler room serving the lofts above in buildings 5 and 7.

The first floor (Fig 42) is a single open space accessed via a door opening at first floor level at the south end from building 7, an inserted opening to the east from building 8 and an opening at the north end from building 4. There is also an opening in the west wall giving access to the first floor loft of building 5. The first floor was clearly originally used as a drying loft but was converted for use as a machine shop. It has a timber planked floor, the southern half of the west wall is timber, a section at the northern end is slate rubble, the south wall is cob and the east wall is a timber partition wall. There is a work bench lit by a window in the south-west corner of the room, a large press machine labelled 'Turner' in the south-east corner (Fig 45), a long framed roller machine or press to the north of the work bench labelled 'Edward Wilson and Son Ltd, Engineers, Bootle, Liverpool (Fig 43), an electric motor to the north of this (Fig 44) driving the rockers in the pits on the ground floor and to the north of this an incomplete roller machine which is similar to another complete example in building 12b. Also within the room is a two wheeled wooden trolley for moving hides and a rotary rack with hooks suspended from the roof (Fig 42) at the south end of the building.

7.8 Building 7

(Figs 18, 20, 46, 47, 48, 49, 50, 51)

Building 7 is a composite of three adjoining buildings; 7a, 7b and 7c, and an aerial walkway (7d) linking the range to building 6 to the north (see Figs 18 and 20). Building 7c was probably constructed in the 18th or early 19th century and is shown on the Tithe map of 1841 (Fig 3), as is the aerial walkway (7d) over an open passage. The rest of the buildings shown to the south of 7c on the Tithe map were demolished (or in the case of 7a, partially demolished) and replaced with the existing buildings (7a and 7b). These were both built between 1880 and 1907 (Figs 4 and 5).

7.8.1 Building 7a

(Figs 18, 20, 48, 49 and 50)

This building is located at the south end of the range. Some of the earlier building (shown on the Tithe Map of 1841, Fig 3) survives in the north-west corner but most of

the structure was completely rebuilt between 1880 and 1907. It is a two-storey gable ended building constructed from slate rubble bonded with lime mortar with segmented arched openings and quoins edged with buff brickwork. Originally the ground floor of the replacement building served as a stable block and the first floor was probably used as a hay loft. The roof is gable ended and has a scantle slate covering with ceramic ridge tiles. The front elevation faces west onto an access lane running from Fore Street through what was once Foster's Yard.

Exterior

The front (west) elevation at ground floor level has two door openings and two window openings (Figs 20 and 48). At first floor level there is a blocked loading door which once had a sliding door (iron support still *in situ*), a central wide window (now partially blocked with inserted smaller window). The 16-pane casement window and doors in this elevation are likely to be original to the pre 1907 rebuild. The south-east corner of the building has been rebuilt in concrete blockwork. There are no openings in the south and east walls and the rear (east) wall comprises slate rubble bonded with lime mortar on the ground floor with corrugated cladding on the first floor. Adjoining the south-west corner of the building is a gateway with original cast wrought iron gate allowing access for the horses into the fields to the south. At the north-west corner there is a flight of slate-rubble built steps giving access to a door opening on the first floor in the north wall.

Interior

Internally the ground floor (Fig 49) has a square block tiled floor with a central drainage channel (now infilled) and stone blocks showing the locations of the former stall divisions, a typical stable floor. After use as a stable the ground floor was converted for use as a sales/workshop space and the dividing wall between buildings 7a and 7b was removed forming a single large room within the two buildings. There is a very large timber beam running the length of building 7a from north to south supporting the first floor in the western half of the building. This appears to be reused and is not related to the building's purpose. It has a cut-out for a bracket which is reminiscent of a horse engine gearing support. The first floor (Fig 50) originally served as a hayloft but was later converted for use as storage for finished hides and is now open to the first floor of building 7b forming a single large room space. It has a timber boarded floor and an inserted hardboard ceiling. Along the rear (east) wall there is timber racking for storage of hides and finished products and there are also two work benches in the room.

7.8.2 Building 7b

(Figs 18, 20, 47 and 50)

This building adjoins the north end of 7a and internally has been opened up to share the same room spaces as building 7a. Building 7b was built between 1880 and 1907 as an infill between buildings 7a and 7c. It replaces a former building on the same site shown on the Tithe Map of 1841 (Fig 3). It is a two-storey gable ended building constructed from slate rubble bonded with lime mortar to the rear (east) and rebuilt in concrete blockwork to the front (west). The original function of the ground floor is unclear but it has most recently been used as a workshop and the first floor was probably used as a drying loft and later for storage. The roof has a corrugated iron covering. The front elevation faces west onto an access lane running from Fore Street through what was once Foster's Yard.

Exterior

The front (west) elevation (Figs 20 and 47) has been rebuilt in concrete blockwork incorporating on the ground floor a workshop window, and a door opening to the north. A lintel running the length of the elevation above the window indicates that the ground floor may have been open fronted (possibly a pit shed). At first floor level there is a

loading door which has a sliding door and two window openings. There are no openings in the rear (east) wall which comprises slate rubble bonded with lime mortar on the ground floor with corrugated cladding on the first floor covering a timber louvered wall.

Interior

Internally the building is open to the room spaces in building 7a. The ground floor has a concrete floor and was used as a sales/workshop space most recently. There is a work bench in front of the window in the west wall. The first floor served as storage for finished hides but was originally probably a drying loft. The first floor (Fig 50) has a timber boarded floor and an inserted hardboard ceiling. Along the rear (east) wall there is timber racking for storage of hides and finished products. At the north end of the room there is a door opening giving access to the first floor of building 7c.

7.8.3 Building 7c

(Figs 18, 20, 46 and 51)

This building adjoins building 7b to the north. It is the earliest surviving part of the building 7 range and is shown on the Tithe map of 1841 (Fig 3). It is a two-storey gable ended building constructed from slate rubble bonded with earth and lime mortar. The original function of this building is unknown. The roof is gable ended and has a corrugated asbestos covering with an inserted ventilator. The front elevation faces west onto an access lane running from Fore Street through what was once Foster's Yard.

Exterior

The front (west) elevation (Figs 20 and 46) at ground floor level has a door opening and a small blocked opening at ground level to the north of it. The lower part of the west wall is earlier in date comprising slate rubble bonded with earth mortar, whilst the later upper part of the wall is slate rubble bonded with lime mortar. The door opening is contemporary with the later phase. At first floor level there are no openings. The rear (east) elevation is slate rubble bonded with lime mortar and has no openings. The north elevation is external on the ground floor only, where it faces a passageway with a loft over at first floor level. The north ground floor elevation has now been replaced with concrete blockwork but was probably originally a timber or cob wall.

Interior

Internally the ground floor has a concrete floor surface and there is a blocked original doorway in the south wall which was once the main entrance to the building. The first floor (Fig 51) has served as a heated drying loft with hangers suspended from the ceiling. It has a timber boarded floor and there is an inserted door opening in the south wall giving access to building 7b. This has been fitted with a heavy duty fire door labelled 'Malter and Platt'.

7.8.4 Loft over passage 7d

(Figs 18, 20, 46 and 51)

This structure spans the passageway between buildings 6 and 7. The passageway gives access from Foster's Yard through to Manor Orchard Yard. The passageway with bridging loft above is shown on the *c*1880 OS map (Fig 4) but may have been present at the time of the Tithe Map in 1841 (Fig 3). The loft structure has been rebuilt with concrete blockwork supported on RSJs and has a corrugated asbestos roof covering.

Internally the loft (Fig 51) has a timber boarded floor and it is open to the first floor of building 7c. At the north end there is a door opening through to building 6 which has been fitted with a heavy duty fire door labelled 'Malter and Platt'.

7.9 Building 8

(Figs 18, 21, 52, 53, 54, 55 and 56)

Building 8 is a composite of four adjoining buildings (8a, 8b, 8c and 8d, see Figs 18 and 21) constructed to fill a gap between pre-existing buildings 6 and 9. All the structures

within building 8 were constructed in phases during the 20th century at a time when all three yards had been combined to form Manor Tannery. Before their construction this area was occupied in the late 19th and early 20th century by a series of external tanning pits and other enclosed yards (as shown on the *c*1907 OS map, Fig 5).

7.9.1 Building 8a

(Figs 18, 21, 52, 53 and 54)

This forms the main pit shed for Manor Tannery and adjoins building 8b to the west and building 9 to the east. It was constructed in 1929 and is a single-storey open fronted building set on a brick plinth to the south. It comprises a steel frame structure six bays long with steel frame trusses spanning the width of the building. The roof is gable ended and has a corrugated iron covering. The front, open-sided elevation faces south.

Internally the floor is concrete. There is a pair of tanning mixing pits in the north-east corner and in the north-west corner there is a machinery plinth (machine now removed). To the south of this there are 24 tanning pits of different grouping and sizes and all lined with brickwork (Figs 53 and 54).

7.9.2 Building 8b

(Figs 18, 21 and 55)

Building 8b adjoins building 8a to the east and the first floor of building 6 to the west. It was constructed after building 8a to fill the remaining gap between buildings. It is a single-storey building with a raised timber boarded floor. It comprises a steel frame roof structure (shared with building 6) with a concrete block wall to the east and a timber partition wall to the west (shared with building 6). The south wall is also concrete blockwork and has a wide loading door opening and the north wall is a timber partition shared with building 8c.

The building functioned as a heated drying loft (Fig 55). There are two fans suspended from the roof driven by a line shaft from an electric motor. At the north end of the room is a machine labelled 'Turner' similar to ones located in buildings 4 and 12.

7.9.3 Building 8c

(Figs 18 and 56)

Building 8c adjoins building 8a to the east and building 8b to the north. It was also constructed during the 20th century. It is a single-storey building with a timber boarded floor at a lower level than building 8a. At the time of the survey the building was unsafe to enter but it seems likely that this was another drying loft since it contains racks for hanging hides. All the internal walls were clad with boarding. There is a door opening through to building 4 to the east and another door opening through to building 8a to the south.

7.9.4 Building 8d

(Fig 18 and 21)

Building 8d is a rendered blockwork extension to the south of building 8a. It has a corrugated sheet roof and door opening on the south elevation and was constructed as a changing room with an adjoining washroom on the south side.

7.10 Building 9

(Figs 18, 21, 57, 58, 59, 60 and 61)

Building 9 is a composite of phased buildings (9a, 9b and 8c) constructed at different dates and incorporating parts of earlier buildings within Manor Orchard Yard. The earliest part of the building is probably 18th or early 19th century and lies at the southern end of 9a where some of the cob walls survive. It was altered and extended northwards in the 19th century to create a large pit shed with drying loft over. In the 20th century the earlier lean-to at the southern end (building 7c) was demolished and rebuilt in concrete blockwork.

7.10.1 Building 9a

(Figs 18, 21, 57, 58, 59, 60 and 61)

This forms part of the main pit shed for Manor Tannery opening into building 8a to the west. It was completed and extended to its present plan between *c*1880 and *c*1907 (Figs 4 and 5) and is a two-storey building, open fronted (to the east) in the northern half. It comprises cob walling at the southern end in the south, west and east walls and elsewhere there is a mix of stone and brickwork with 20th century concrete blockwork modifications. The roof is hipped at the south end and has timber tie beam trusses with a corrugated iron covering except over the hip where there are asbestos tiles. The front, open-sided elevation faces east.

Internally the ground floor is concrete. There are eight timber-lined tanning pits at the north end, a central path to the south of these giving access to building 8, twelve brick-lined pits to the south of the path and a further 14 timber-lined pits at the southern end of the building. At first floor level there was once a drying loft over the southern half of the building which has now been removed and replaced with a timber walkway along the eastern wall accessed via external steps to the south. The walkway leads to an existing drying loft in the northern half of the building with louvered walls and a timber planked floor.

7.10.2 Building 9b

(Figs 18, 21 and 60)

Building 9b adjoins building 9a to the north and is part of the same room space. It is a single-storey lean-to building with a single pitch roof covered with corrugated sheeting. The west wall of the structure incorporates part of an earlier 18th or early 19th century building and is built from cob with stone masonry at the base. To the east is a concrete blockwork pillar and the north wall comprises corrugated sheeting and concrete blockwork. In the concrete floor there are six timber-lined pits.

7.10.3 Building 9c

(Figs 18, 21 and 57)

Building 9c adjoins building 9a to the south and building 8d to the east. It is a 20th century concrete block-built, lean-to structure replacing an earlier 19th century lean-to on the same footprint. It has a corrugated sheet roof and a chimney at the north-west corner. The original function of the building is unclear although the chimney suggests it was used as a boiler room. It may have been used to house a portable steam engine. A flight of external slate rubble steps adjoin the building on the east side giving access to the first floor of building 9. These steps are contemporary with the earlier 19th century structure.

7.11 Building 10

(Figs 18, 22, 62, 63 and 64)

Building 10 was probably constructed during the early 19th century and is shown on the Tithe map of 1841 (Fig 3) although it was extended to the south in the second half of the 19th century and parts of the building at the south-east corner belong to an earlier structure. It is a Grade II listed, two-storey, gable ended building constructed from slate rubble bonded with lime mortar on both floors. The function of the ground floor is as a pit shed and the first floor was used as a drying loft with a storage area at the south end. The roof structure is tie beam trusses with a bituminised rag slate covering and ceramic ridge tiles. The front elevation faces west onto an access lane running from Fore Street through what was once Manor Orchard Tannery. There is also a former access lane on the east side of the building for Wellington's Yard. It adjoins building 12 to the south.

<u>Exterior</u>

The front (west) elevation (Figs 22 and 62) retains all its original openings. At ground floor level there are two door openings at the south end with segmented slate arches and brick thresholds. Above the northern door opening is a window opening at first floor level also with a segmented slate arch. These suggest that the southern end of the building (a later extension) originally served a separate function from the rest of the building and the tanning pits at this end are likely to have been inserted at a later date. The remainder of the west elevation at ground floor level is open fronted, with the first floor supported on alternate slate rubble wall sections and granite pillars. The granite pillars have 19th century quarry drill marks. In the central section of rubble wall there is a square opening at ground level with a slate lintel. The northern end the building has a narrower plan. It appears to have been altered to accommodate an external stairway to the first floor. The stonework at the north-west corner has been trimmed back and at a later date a chamfer has been added to this corner to allow large vehicles to access the rear yard.

The large openings on the first floor of the west elevation have been covered with corrugated sheeting although they were originally timber louvers. The east elevation (Figs 22 and 63) has a similar wide opening at the north end of the first floor which is also now covered with corrugated sheeting. To the north of this is a window opening with timber lintel and slate sill. At the south end of the elevation where it adjoins building 12 the slate quoin of an earlier building protrudes where it has been incorporated into the join between buildings 10 and 12. There are no openings in the north gable elevation.

Interior

Internally the ground floor has 24 brick-lined square pits with four larger rectangular pits at the south end. The rockers for the pits were powered by an electric motor which is located at the south end of the first floor. The first floor (Fig 64) is a single open room space accessed via an external staircase (now missing) at the north-west corner of the building and through a door opening from the first floor of Building 12. The first floor was used as a drying loft with a storage area at the north end. The tie beams of the trusses have been worn where hides have been hung to dry.

7.12 Building 11

(Figs 18, 23, 65, 66, 67, 68, 69, 70, 71, 72, 73 and 74)

Building 11, located in The Manor Orchard yard, comprises two structures; the original building (11a, an oak bark mill and warehouse) constructed between 1841 and *c*1880 and shown on the *c*1880 OS map (Fig 4) and a later mill extension (11b) adjoining the north end of the original building constructed between *c*1880 and *c*1907 and shown on the *c*1907 OS map (Fig 5) as an open fronted building. Building 11b was heavily remodelled in the 20th century.

7.12.1 Building 11a

(Figs 18, 23, 65, 68 and 69)

This is a two-storey gable ended building constructed from slate rubble bonded with lime mortar on both floors. The ground floor and first floor were both most recently used as storage for oak bark and latterly Valonia acorn husks (Jones 2001) and at the south end of the first floor there was originally a mill for grinding the bark, later relocated to the northern extension (11b). The roof structure is braced A-frame trusses with bituminised diamond shaped tile covering (replacement of original slate) with ceramic ridge tiles. The front elevation faces east onto a yard.

Exterior

The front (east) elevation (Figs 23 and 65) retains all its original openings. At the south end there is a door opening at ground floor level with another blocked door immediately to the north of it. There is one window opening on the ground floor and two on the first floor, all with segmented slate arches over. In the northern half of the elevation there

are two wide loading doors one at ground floor level and the other directly above at first floor level. These suggest that the northern end of the building originally served as storage.

The south gable wall (Figs 23 and 68) has two arched window openings, one on the ground floor and the other on the first floor which has been blocked. There is a pair of small rectangular openings to the west of the windows for the transmission of power into the building from a single storey engine shed extension once located at this end of the building. The roofline of the engine shed is visible in the masonry of the south elevation along with roof timber sockets. Iron brackets between the two window openings probably also relate to the engine shed roof. There is an opening blocked with brickwork in the western jamb of the ground floor window opening which is probably another inserted drive opening. An area towards the base of the western quoin has been cut away which is likely to be associated with the construction of the engine shed to the south or large bark shed shown on the *c*1907 OS map (Fig 5) to the west.

The west wall was originally adjoined by a bark shed shown on the *c*1880 OS map (Fig 4) which was later extended (see *c*1907 OS map, Fig 5) but has now been demolished. There is one inserted door opening at ground floor level giving access into the former bark shed. Towards the south end of the elevation there are various features which are either associated with a drive from an engine or the waterwheel in the limes area to the south or with the extension of the adjoining bark shed. These features include an iron bracket (probably for an upright timber), remains of a piece of timber supported by bolts, a small brick in-filled opening and another opening immediately below it.

The north wall became an interior wall once building 11b was added between 1880 and 1907. There are no openings or features at ground floor level but at first floor level there is an inserted door opening at the east end giving access between the first floors of 11a and 11b.

Interior

The interior of the building (Fig 69) was replaced following a fire in the 1920s but a small area of the original first floor structure survives at the south end of the building (Jones 2001). Both the ground floor and first floor are single open room spaces although the ground floor was originally divided in two, with a small room at the south end divided from the larger room by a stud partition wall evidenced by sockets for timber supports in the floor and a line of plugs in the south wall. The original first floor structure, located in the south-west corner, has a large reused timber beam (likely to be a bearing beam from a horse engine house) supporting the floor above (probably where there was once machinery). In the west half of the south wall there is a blocked opening for a drive shaft. The larger ground floor room to the north had a central support beam (now removed) holding the floor above running from north to south and held by props (the prop sockets are visible in the floor). The ground floor now has a concrete surface and at the north end there are remains of oak bark chippings. The first floor is accessed via an external staircase on the west side of building 11b although originally there was an internal staircase at the south end of the building (Jones 2001). At the time of the site visit the collapse of the first floor in building 11b meant that the first floor could not be accessed. The ground floor and first floor latterly were used as storage areas for oak bark and Valonia. The tie beams of the trusses have been worn where hides have been hung to dry (Jones 2001).

7.12.2 Building 11b

(Figs 18, 23, 65, 66, 67, 70, 71, 72, 73 and 74)

This is a two-storey northern extension to building 11a built between 1880 and 1907. it is constructed from an L-plan slate rubble wall bonded with lime mortar to the north-west, whilst the rest of the structure (north and east walls) comprises a timber frame with slate rubble rendered with cement mortar at ground floor level and concrete

blockwork at first floor level (replacing timber) and a corrugated iron roof covering. Its former function was a Valonia and oak bark mill.

Exterior

The west side of the building (Figs 23, 67 and 71) has an external low ramp staircase constructed on timber piers beneath an extended roof line giving access to the first floor of both 11b and 11a. Just under the roof line there is line shafting leading through to building 11a with pulleys and three wheels and sockets for three belt drives. The belt drive to the south powered a Valonia mill in the south half of the building, another to the north powered an oak bark mill in the north half of the building and the belt drive at the northern end supplied the power from an electric motor housed in a small lean-to adjoining the north elevation. The north gable elevation has a door opening at ground floor level and a window opening at first floor level. To the west there is a small concrete block-built lean-to with corrugated iron roof which once housed the electric motor to power the mills. The machine base is still visible inside and housing for the belt drive with its own covered channel leading through the west wall. The east elevation has a door opening at ground floor level to the south and two window openings at first floor level lighting the mill.

Interior

The ground floor (Figs 70, 72 and 73) is divided into two spaces by a half-height, timber planked partition. This was designed so that the milled oak bark would fall from the floor above into the northern half of the building and the milled Valonia would fall into the southern half of the building. Lying on the concrete floor surface was milled Valonia in the southern half and milled oak bark in the northern half along with several large wicker baskets used to transport the milled materials to the tanning pits. The mills (now removed), located on the first floor, were supported on two large timber beams (now collapsed) aligned north-south in the centre of the building. Curved recesses in the timbers immediately below the two mills indicated the bearings and point at which the milled material fell to the ground (Fig 73). Either side of the recesses there were large iron bolts to hold the mills in position. At the time of the site visit the first floor could not be access because of its partial collapse, although bundles of oak bark were visible on the remaining floor surface.

7.13 Building 12

(Figs 18, 22, 75, 76, 77, 78 and 79)

Building 12 is a Grade II listed building. It is a composite of phased buildings (12a and 12b). The earliest part of the building is at the northern end (building 12b) which is probably 18th or early 19th century in date and is shown on the Tithe map of 1841 (Fig 3). The southern part of the building was probably constructed in the mid 19th century to the south of 12b as part of Wellington's yard and is shown on the *c*1880 OS map (Fig 4).

7.13.1 Building 12a

(Figs 18, 22 and 75)

This building is located at the southern end of building 12 and was constructed as a small, square, two-storey hipped roof extension to building 12b as part of Wellington's yard in the mid 19th century. It has a bituminised slate covered roof, hipped at the south end.

Exterior

The front (east) elevation (Fig 22) is constructed from roughly coursed slate rubble bonded with earth mortar with lime mortar repointing and has dressed granite quoins and jambs up to first floor level (a building style unique to Wellington's yard). At ground floor level there is a door opening and inserted window opening. A second door opening with light above fills the gap between the south quoin of building 12b and the

masonry of building 12a. At first floor level the wall is now concrete blockwork rendered with concrete (replacement of probable timber louvered walls) and an aerial walkway has been inserted in the northern half giving access between the first floor levels of buildings 12 and 14 (Fig 82).

The south wall (Figs 22 and 75) has been almost entirely rebuilt with concrete blockwork, when a boiler with associated chimney was inserted in the 20th century. However, surviving stonework at the base of this wall shows that there was once a door opening at ground floor level. The west (rear) wall (Figs 22 and 75) is constructed from roughly coursed slate and sandstone bonded with earth and lime mortar and is blind. It butts up against the surviving slate rubble quoin of building 12b.

Interior

Internally at ground floor level there are remains of a cobbled floor. A boiler (now removed) was recently located at the south end to provide heat for the drying lofts above. The original function of the ground floor is not known. At the north end of the building dividing it internally from building 12b there is a staircase giving access to the drying lofts above in buildings 10, 12 and 14. At first floor level the room was originally a drying loft and has a timber planked floor. An opening through to an aerial walkway between buildings 12a and 14 has been inserted in the east wall. There is also an opening through to the drying loft of building 12b.

7.13.2 Building 12b

(Figs 18, 22, 75, 76, 77, 78 and 79)

Building 12b adjoins its southern extension, building 12a, to the north. It is was originally a two-storey gable ended building which now has a corrugated iron roof covering. The south gable was removed when building 12a was added. It is constructed from roughly coursed slate rubble bonded with lime mortar and fronts Wellington's yard to the east.

Exterior

The east elevation (Figs 22 and 76) has a large double door opening at the north end now partially blocked with a wide louvered opening above it. At the south end there is a widened door opening partially blocked with a brick threshold and south jamb with a wide opening above now covered with corrugated sheeting. The west wall (Figs 22 and 75) has been greatly rebuilt in the southern half and a door opening has been inserted at ground floor level. There is now a wide timber louvered opening in the southern half at first floor level.

Interior

Internally on the ground floor there is a concrete surface at the north end and a timber planked floor at the south end. A machine with electric motor is located at the north end and there is a complete rolling machine (labelled Huxham and Brown, Exeter, England, Figs 77 and 78) at the south end powered by a belt drive from an electric motor (all *in situ*). There is a trap door above the centre of the room, probably used for hides from the loft above. The first floor is a single open drying loft (Fig 79) with access via door openings through to building 10 and 12a.

7.14 Building 13

(Figs 18, 24, 80 and 81)

Building 13 was constructed in the mid to late 19th century and is shown on the *c*1880 OS map (Fig 4). A building adjoining the north end (also shown on the *c*1880 OS map was demolished during the 20th century. Building 13 is a single storey building constructed from slate rubble bonded with earth and lime mortar with a 20th century toilet block extension to the south. The original function is likely to have been a stable

block although it was later converted for use as a crib room. The roof is gabled with A-framed trusses and a bituminised rag slate covering. The front elevation faces east onto an access lane running from Fore Street through what was once Wellington's Yard into the fields to the south.

Exterior

The front (east) elevation (Fig 24) has two door openings and a window opening at the south end. The wider northern door opening has been blocked in the northern half where a window has been inserted. At the far south end there is a slot in the masonry for a gatepost and an iron gate hook. The north elevation (Fig 24 and 80) has an original central window opening with original shutters. A brick chimney has been inserted in the apex of the roof when the building was converted as a crib room. At the west end of the elevation the stonework has been cut back when the building adjoining the north end was demolished. The west wall (Figs 24 and 80) is blind, except for inserted ceramic ventilation pipes, showing that the building was constructed as part of Wellington's Yard. The south gable end (Fig 24) has a window opening to the east and a concrete block-built toilet block adjoins its west half.

Interior

Internally there is a concrete floor and the walls are lime-washed (Fig 81). All the windows have reveals and there is evidence of a removed east-west partition that once divided the interior in half.

7.15 Building 14

(Figs 18, 25, 82, 83, 84, 85, 86, 87 and 88)

Building 14 was constructed in 1839 (inscription in the plaster under the roof) as part of Wellington's Yard and is shown on the Tithe map of 1841 (Fig 3) (Jones 2001). A building adjoining the south end (also shown on the Tithe map) was demolished during the 20th century. Building 14 is a Grade II listed building. It is a two-storey gable ended building constructed from roughly coursed slate rubble bonded with earth mortar with lime and cement mortar repointing and dressed granite quoins, lintels and jambs (unique to Wellington's Yard) on the ground floor and louvred timber walls on the first floor. The original function of the ground floor is likely to have been as storage (possibly for oak bark with an associated mill) whist the first floor was clearly used as a drying loft. The roof is gabled with tie beam trusses and a rag slate covering and a vent in the northern half of the ridge. The front elevation faces west onto an access lane running from Fore Street through what was once Wellington's Yard into the fields to the south although the north gable end is also designed as an impressive frontage.

Exterior

The west elevation (Figs 25, 82 and 84) has two door openings at ground floor level giving access to the two separate room spaces inside. The southernmost door opening has been heightened with a timber lintel replacing the original granite lintel. At first floor level a door opening has been inserted at the north end giving access from the aerial walkway and first floor of building 12a. To the south of this is a small widow opening in the timber louvered wall. The west wall has serious structural weakness, bowing outwards, and has been propped with a slate rubble buttress bonded with lime mortar between the two ground floor door openings. At the far south end there are two iron gate hinges in the masonry.

The north elevation (Figs 25 and 83) has all its original openings. There is a door opening to the west at ground floor level with original timber planked door, a loading door at first floor level with a split timber braced door and a timber nailed to the western jamb (indicating that there was once external timber steps giving access to the first floor) and a window opening to the west at first floor level. Above the window there is a pair of decayed cow or ox horns set in a metal mount. All the openings have

granite jambs and segmented granite lintels and there is slate flashing below the roof line.

The east elevation (Figs 25 and 85) is blind and has granite quoins. The top of the ground floor masonry wall has been capped with reused ceramic ridge tiles with roof slates overlying them. The first floor wall is timber louvers.

The south elevation (Fig 25) has original granite quoins and an original blocked window opening at ground floor level to the west. This has granite jambs and a granite lintel and is now obscured by a concrete block-built buttress of which there are two (one on either side of the elevation). There is also an added concrete plinth at the base of the wall and the first floor level has been rebuilt and rendered with cement. At the top of the ground floor masonry wall there is a slate sill.

Interior

Internally the ground floor has been divided into two room spaces by a timber partition (Fig 86). This partition has a central tall hatch opening with a split door whose base is 1m above ground level. The floor surface in both the north and south rooms is concrete. The north (smaller) room (Fig 86) has lime-washed walls above 1.5m up from the floor surface. The lower part of the wall is bare stone. The larger southern room (Fig 87) does not have lime-washed walls. There are wooden racks along the east wall and in the south gable a window opening is visible, blocked by the later external buttress. The original function of the ground floor is not known but it seems likely that the unlit southern room served as an oak bark store and the smaller northern room served as a receptacle for milled bark derived from a mill located on the floor above. At first floor level there is a single open room space (Fig 88). This room was originally probably a drying loft with an oak bark mill installed at the north end. It has a timber planked floor and the timber louvered walls are original. An opening through to an aerial walkway between buildings 12a and 14 has been inserted at the north end of the west wall (Fig 82). There is also a door opening in the north gable giving access to a flight of external steps (now removed).

7.16 Building 15

(Figs 18, 26, 89, 90, 91 and 92)

Building 15 was constructed in the mid to late 19th century as part of Wellington's Yard and is shown as complete on the *c*1880 OS map (Fig 4) although its construction combined two earlier structures shown at the north and south ends on the Tithe map of 1841 (Fig 3). The north-west and southern parts of building 15 as it is shown on the *c*1880 and *c*1907 OS maps were demolished during the 20th century and the southern end of the remaining building greatly altered for use as a garage. The footings of the west wall of the former north-west wing are still visible in the yard. Building 15 is now a two storey building to the north and a single storey building to the south (although originally two storey). It was originally an open fronted building and the rear and north walls are constructed from slate rubble bonded with lime mortar at ground floor level and all the walls at first floor level are timber frames with replacement corrugated iron cladding. The original function is likely to have been pit sheds on the ground floor with drying lofts above. The roof is hipped at the north end and has original tie beam trusses and a corrugated asbestos covering. The front elevation faces west onto an access lane running from Fore Street through what was once Wellington's Yard.

Exterior

The front (west) elevation (Figs 26, 89 and 90) was originally open fronted at ground floor level with granite block-built piers (two survive in the northern half) supporting timber louvered walls at first floor level. At the southern end modern concrete piers have replaced the original granite piers and in the northern half there is concrete blockwork and corrugated plastic filling the former open side. At first floor level the timber louvered walls have been replaced with corrugated iron. There is a split door set centrally within the northern half and a door opening at the northern end. The east wall

is blind, constructed from slate rubble bonded with lime mortar on the ground floor and partially terraced into the bank to the rear. The south wall has been demolished and re-built in concrete blockwork.

Interior

Internally there is a concrete floor in both the north and south ends of the ground floor. The north half of the ground floor is divided into two room spaces by a timber partition wall. In the smaller, open-fronted, southern room a vehicle inspection pit has been inserted (possibly reusing a former tanning pit). The northern room (Fig 91) has been converted for use as a workshop/store and at the north-east corner there is a staircase leading to a first floor landing/gallery (a small room enclosing the stairs screened from the rest of the first floor room space by timber planked partition walls). The stairwell sides of the planked partitions enclosing the landing are decorated with pasted up illustrations taken from 19th century periodicals. The rest of the first floor is likely to have originally functioned as a drying loft (Fig 92). The roof trusses are original tie beam trusses.

No tanning pits originally associated with Wellington's Yard have been located during this study. It appears likely, given the piered structure, that pits were once located in the ground floor of Building 15.

7.17 Building 18

(Figs 7, 27, 93, 94 and 95)

Building 18 was constructed in 1953 and is shown on the modern OS digital mapping (Fig 7). It is a single storey, gable ended building constructed from concrete blockwork with timber braced roof trusses and a corrugated cement roof covering. The building was constructed as a limes shed designed to incorporate all the processes formerly undertaken in the limes yard at the southern end of the site (salting, de-hairing, de-fleshing and liming). There is a small concrete block-built, lean-to toilet adjoining the east gable end. The front elevation faces south onto an access lane running out onto Creed Lane to the west.

Exterior

The front (south) elevation (Fig 93) is supported by a series of concrete buttresses and has four wide, sliding, double loading and ventilation door openings evenly spaced along its length. Three of the door openings retain their original braced timber doors. The north elevation has two original window openings and the two gable ends are blind.

Interior

Internally the building is divided into two major room spaces by a concrete block-built partition wall. The western (smaller) room served as a storage and salting room for the hides before they were processed. The concrete floor here has been designed to slope down to a centrally set drain to keep the room free of unwanted liquids. The eastern (larger) room (Figs 94 and 95) functioned as a processing room. The floor is concrete and there is a small office or crib room partitioned off in the north-west corner. At the western end of the south (front) wall there are concrete bases which once held a de-fleshing/de-hairing machine driven by an electric motor located at the western end. To the north of these concrete bases there are two large soak pits (for washing the hides) set in the floor and within the eastern half of the room there are eight liming pits raised above floor level. Each of the pits has a rocker for agitating the hides driven by an electric motor situated at the eastern end of the pits. There is also a cutting or 'rounding' table located in the south-east corner of the room used for cutting and trimming the hides.

8 Significance

The following text is an extract from English Heritage's historic building report on The Manor Tannery (Jones 2001). It summarises the importance of the site as a whole.

> *The Manor Tannery is the only surviving oak bark tannery in Cornwall and is one of the last few examples to be found in England. Another surviving example of the traditional oak bark tannery can be found at Colyton, near Seaton, in Devon. In the early 20th century there were eighteen tanneries in Cornwall. In the years immediately after the First World War this number was reduced to five, including another tannery, the Lower Tannery, located in Grampound. This tannery was situated at the bottom of the Fal valley, on the opposite side of the river, where a few stone-rubble-built tannery buildings remain. Tanning ceased there in 1932. In the late 1930s there were only two tanneries remaining in Cornwall, Croggon's Manor Tannery and a firm called Hender's who had premises in Launceston. The Manor Tannery represents a continuous tradition of tanning on the same site for nearly three hundred years. Its plan form, largely defined by the town burgage plots on which it was built, serves to represent the traditional, close-knit relationship between domestic life and the practise of rural industry in the 18th, 19th and early 20th centuries.*
>
> *The Manor Tannery retains a complete and extensive group of specialised industrial buildings associated with the production and finishing of leather. It also comprises a full range of liming and tanning pits, machinery associated with hide preparation and leather finishing, a water wheel and associated water supply system and a diverse range of equipment associated with the various stages of production. The tannery incorporates traditional tannery buildings originating from three separate tanneries that were known as Wellington's Yard, the Manor Tannery and Forster's Yard. These were developed on adjacent sites during the 18th and 19th centuries and were amalgamated in stages during the late 19th and early 20th centuries, thereby forming the present tannery site. This history of amalgamation and the survival of so many of the buildings has provided the opportunity to record comparative examples of specialised building types and site plans from three near contemporary tanneries and makes the present combined Manor Tannery a rare, if not unique, survival.*
>
> *The great majority of these buildings and features are representative of the traditional hand processes involved in oak bark tanning, an essential craft skill for many hundreds of years which was conducted in all areas of the country. The skills required to produce leather in this way are now extremely rare, although they have been passed on through many generations of the Croggon family and its staff. The tannery has made limited concessions to more recent tanning technology and more time-efficient processes, although these have not compromised the buildings and features associated with the earlier methods of production.*

Archaeological features uncovered during the watching briefs have revealed a medieval and post-medieval landscape of burgage plots and fields. However, a series of widely scattered burnt pits and an isolated L-shaped group of pits remain to be dated and characterised.

9 Conclusions/discussion

The watching briefs identified former boundaries and other features associated with medieval burgage plots running southwards from the properties fronting Fore Street. Former post-medieval boundaries were also identified in the eastern part of the site along with a ditch [126] of probable post-medieval or 19th century date. Of particular interest were a series of shallow burnt pits scattered across the site together with an L-shaped group of pits located in field 2. None of these features produced any artefacts

and it is possible that they are early in date. It is also possible that some may relate to activities associated with the tanning process. Recommendations have been set out below for further analysis of these pits.

The historic building record has allowed the enhancement of the earlier English Heritage record (Jones 2001) and resulted in a full record of the buildings prior to conversion and demolition. The building record included all of the tannery buildings within the main complex located in the northern part of the site (Buildings 1-15) and also a single structure (Building 18) in the southern half of the site which was marked for demolition. Other buildings and structures associated with the tannery at the southern end of the site lay outside the development area and were not included within the building record. Recommendations are set out below for the buildings to the south in the event of future development or consolidation in this area.

It is to be noted that the topographical location of Manor Tannery appears typical of early tanneries in Devon and Cornwall, where tanning functions were incorporated into burgage plots. At Manor Tannery the principal tanning buildings are located behind the street frontage, with the limes functions situated on the watercourse at the lower end of the (combined) burgage plots. Similar layouts are used at former tanneries at St Germans (East Cornwall, centred at SX 3564 5797) and the former Charles Pearce and Sons tannery at East Street, South Molton, Devon.

10 Recommendations

It is recommended that further a further stage of analysis is undertaken to help determine dates and functions for some of the excavated features. The outline for this work would include the following:

- Production of an updated project design for analysis and publication
- Liaise with specialists (eg, environmental samples and radiocarbon dating) to arrange analysis and reporting.
- Send off residues from environmental samples to appropriate specialists.
- Sort out and send off suitable material for radiocarbon dating.
- Publish the results (if appropriate) as a short piece in a relevant journal (eg, *Cornish Archaeology*).

Formatted: Bullets and Numbering

A synthesis of the results from the fieldwork together with those from specialist analyses should be incorporated into any final publication.

It is also recommended that any future development or consolidation work to the southern part of the tannery site, which lies immediately south of the development area and contains abandoned limes sheds, pits and other associated structures, should be subject to an historic building record and archaeological work as appropriate. This area was not included in the present phase of work but is an important part of the historic tannery site.

11 References

11.1 Primary sources

GSB Prospection geophysical survey, report no. 2011/49

Ordnance Survey, *c*1880. *25 Inch Map* First Edition (licensed digital copy at HE)

Ordnance Survey, *c*1907. *25 Inch Map* Second Edition (licensed digital copy at HE)

Ordnance Survey, 2007. *Mastermap Digital Mapping*

Tithe Map and Apportionment, 1841. *Parish of Creed* (digital copy at HE)

11.2 Publications

Bane, A and Oliver, M, 1998. *The Book of Grampound with Creed*. Halsgrove, Tiverton.

Jones, B V, 2001. *The Manor Tannery Grampound Cornwall* Architectural Investigation Report. English Heritage, Swindon.

Shepherd, F, 2011. *Land at Manor Tannery, Grampound, Cornwall, Archaeological Assessment*. HE Projects unpublished report.

11.3 Websites

http://www.heritagegateway.org.uk/gateway/ English Heritage's online database of Sites and Monuments Records, and Listed Buildings

12 Project archive

The HE project number is **2011094**

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Kennall Building, Old County Hall, Station 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.
2. Field plans and copies of historic maps stored in an A2-size plastic envelope (GRE 781).
3. Electronic drawings stored in the directory ..\CAD ARCHIVE\Sites G\Grampound Manor Tannery 2011-2012
4. Black and white photographs archived under the following index numbers: GBP 2212, 2237, 2238, 2239, 2247, 2248
5. Digital photographs stored in the directory ..\Images\Sites E-H\Grampound Manor Tannery WB 2011094
6. English Heritage/ADS OASIS online reference: cornwall2-142924

This report text is held in digital form as: ..\HE Projects\Sites G\Grampound Manor Tannery 2011-2012\ Stage 2 2011094\ Manor Tannery report 2012

Artefacts and environmental material retrieved during the project are stored at the Royal Cornwall Museum, River Street, Truro. The site code is MTG11

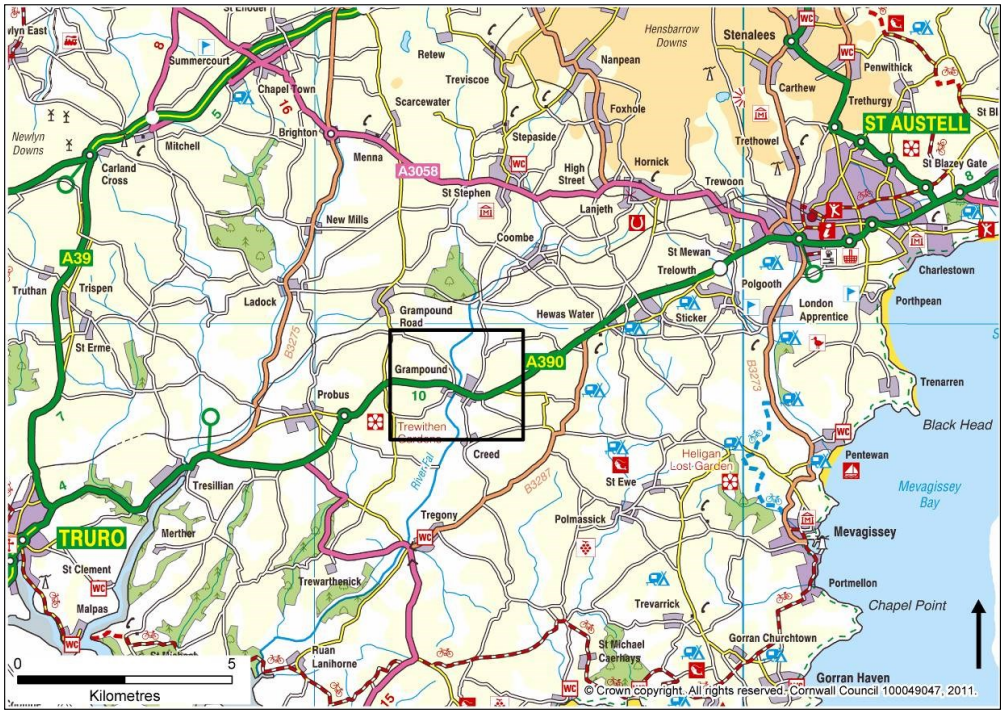


Fig 1 Location map.

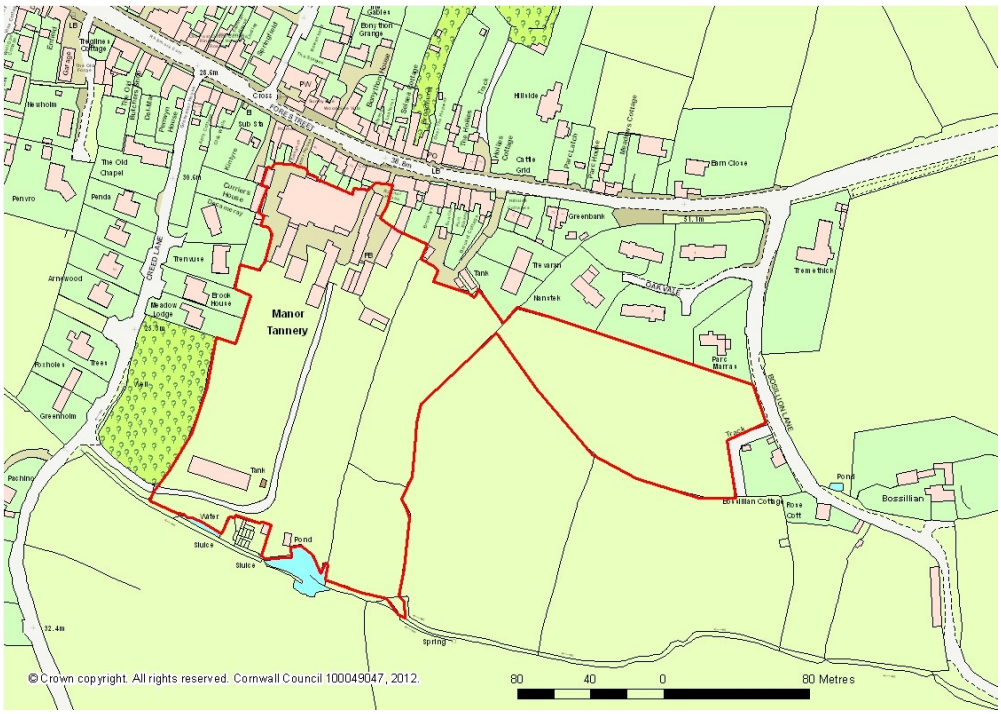


Fig 2 Ordnance Survey digital mapping showing the site extent

Fig 3 Extract from the Creed Tithe Map, 1841.

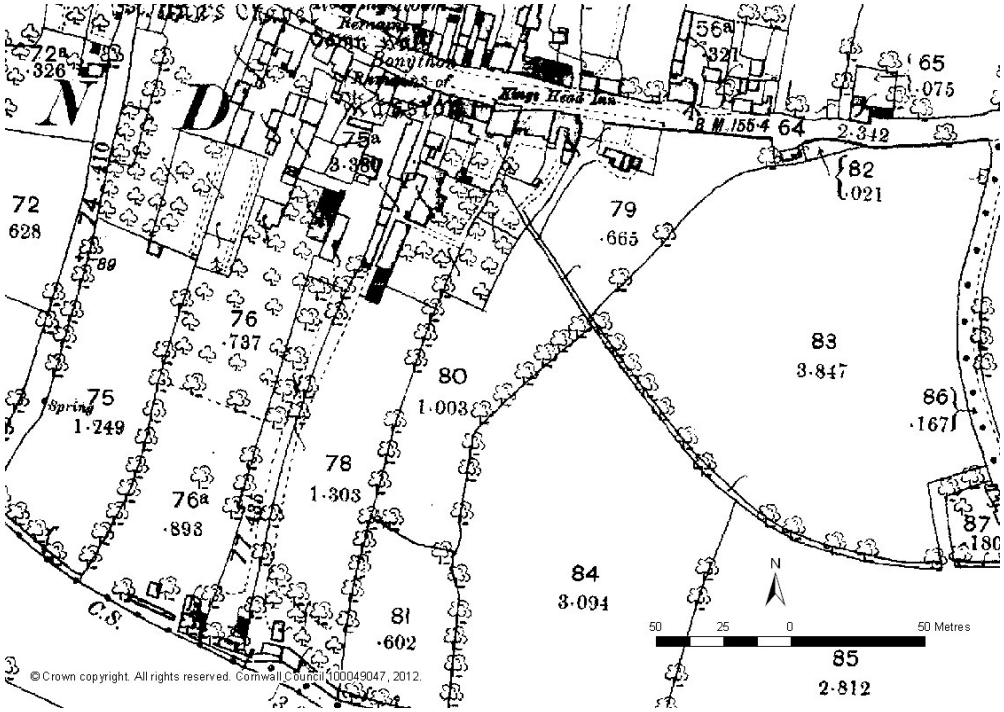


Fig 4 First Edition of the Ordnance Survey 25 Inch Map, c.1880

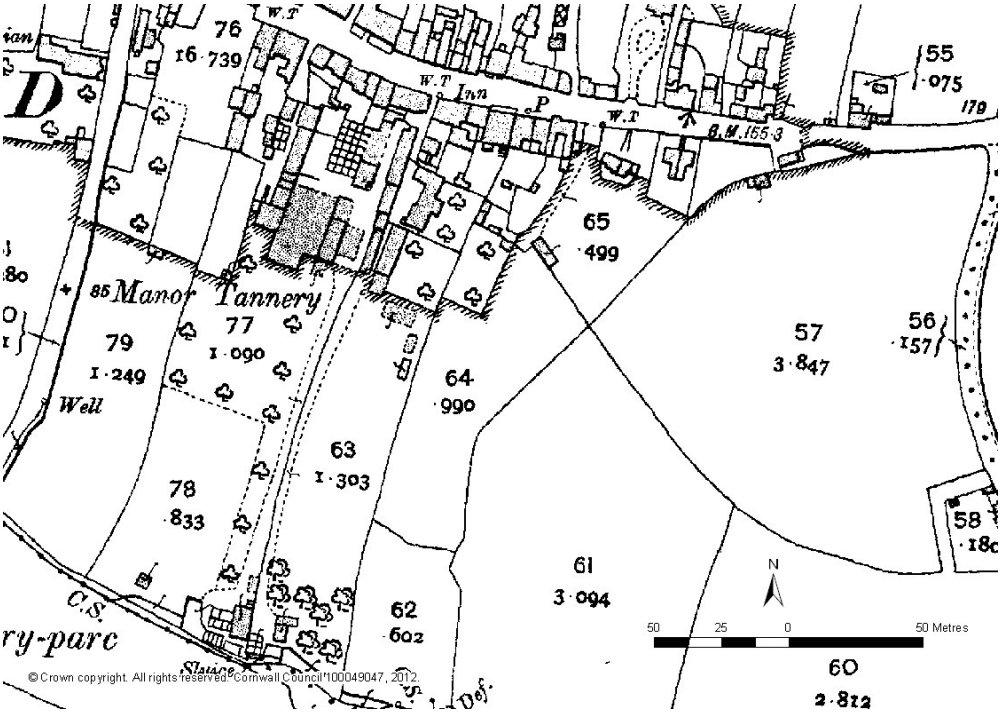


Fig 5 Second Edition of the Ordnance Survey 25 Inch Map

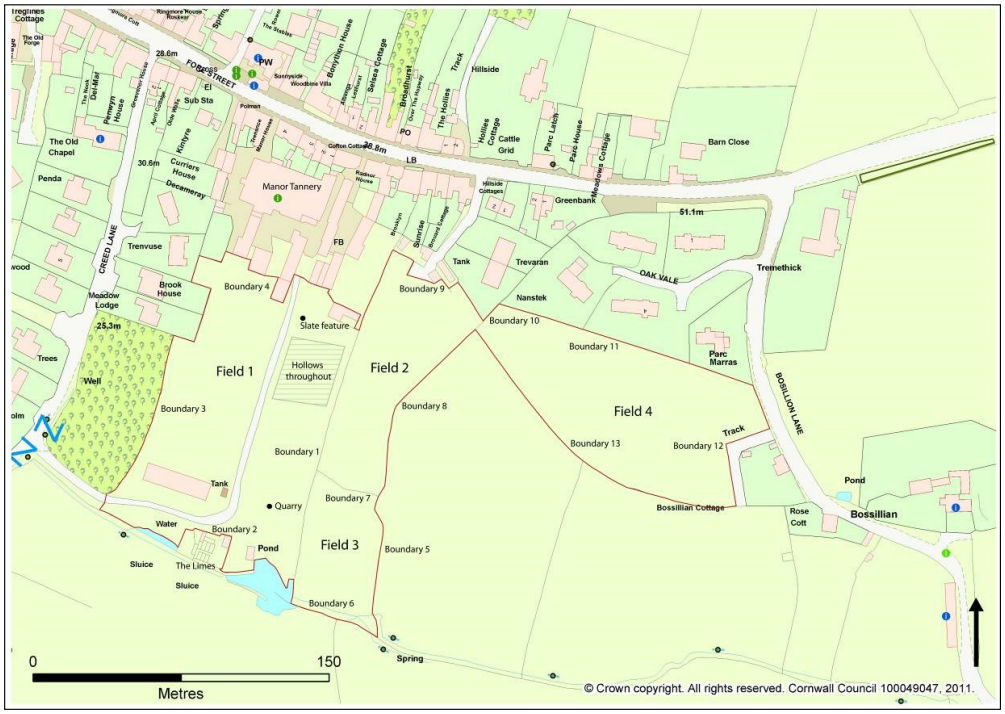


Fig 6 Locations of numbered fields covered by the watching brief

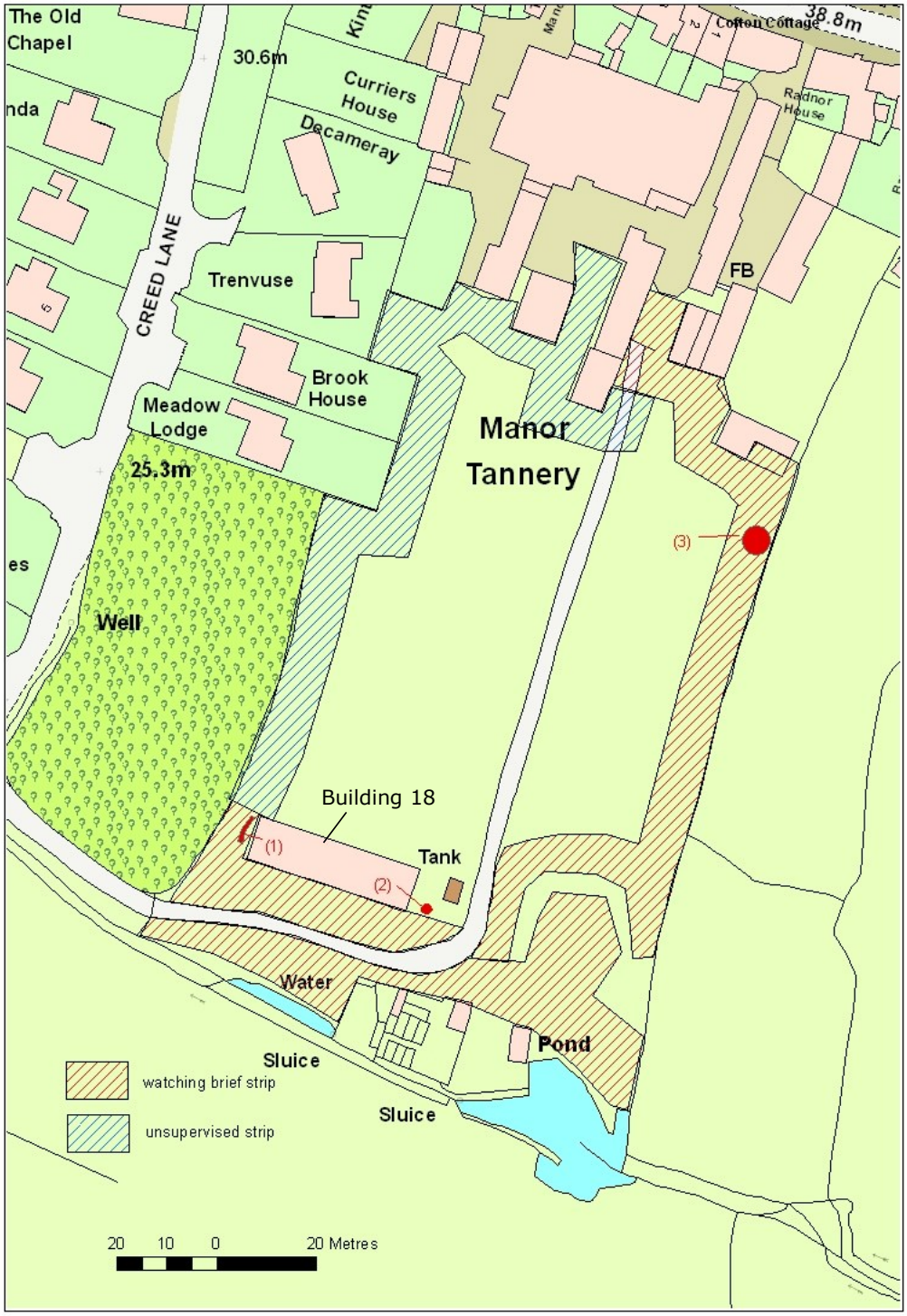


Fig 7 Extent of vegetation strip and site locations

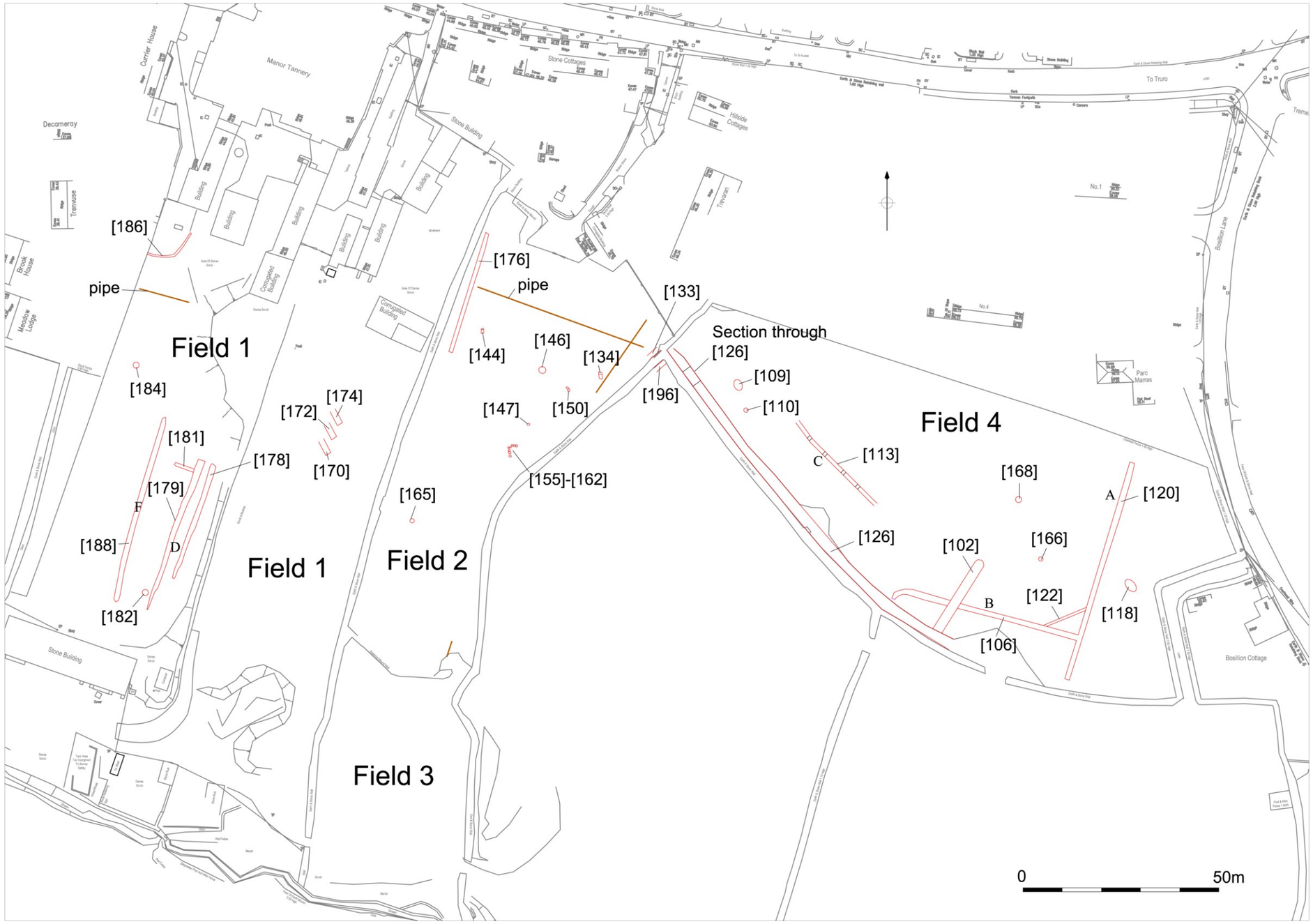


Fig 8 Location plan of features exposed during archaeological watching briefs

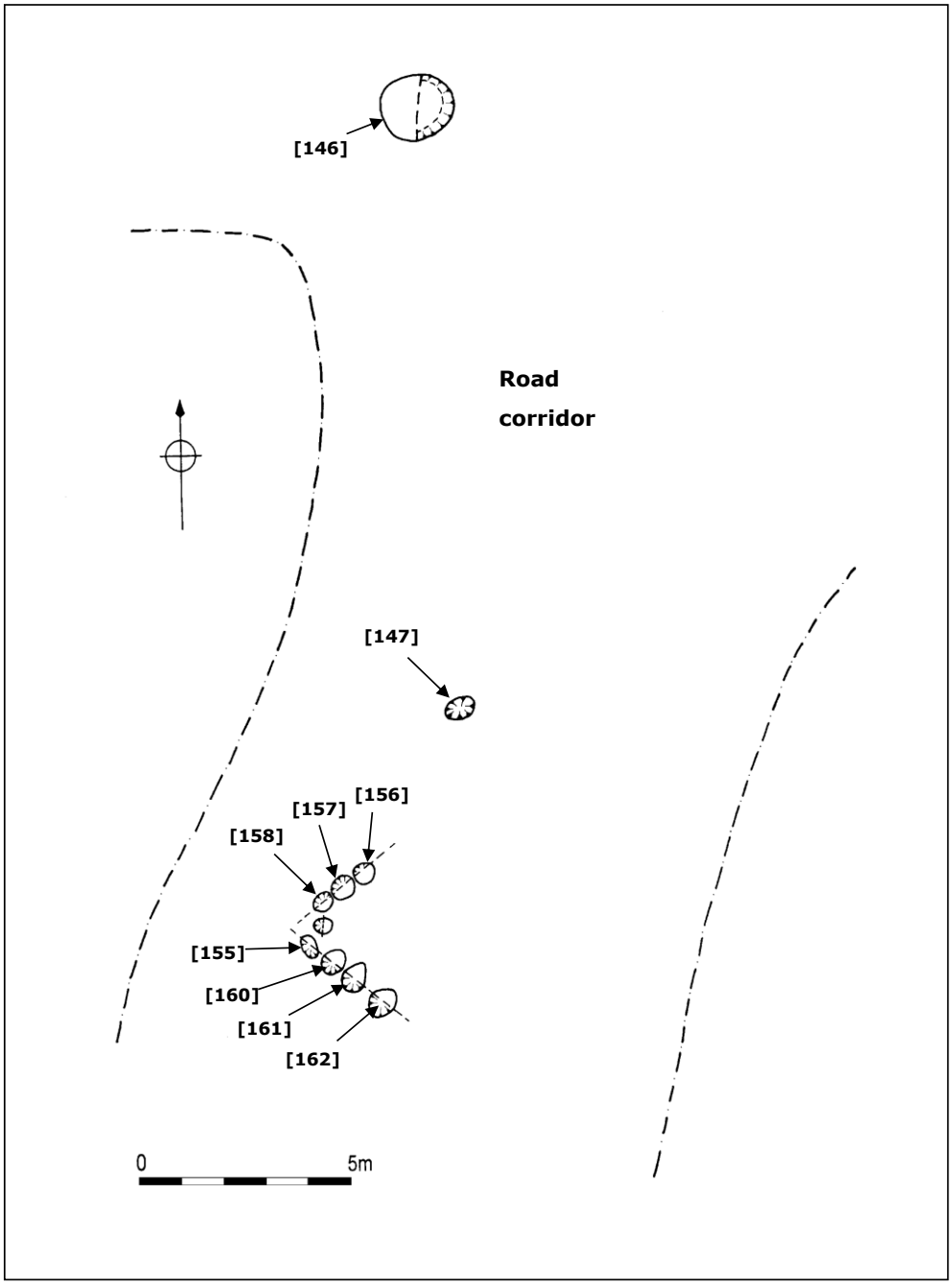
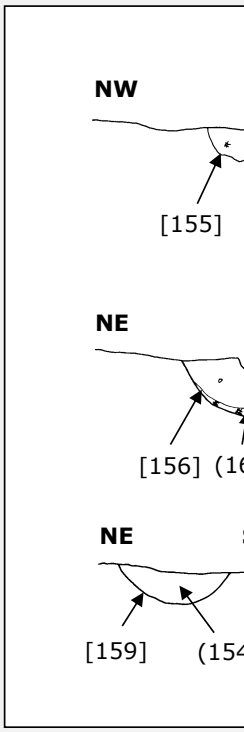


Fig 9 Plan of group of pits/postholes [155]-[162] located in Field 2



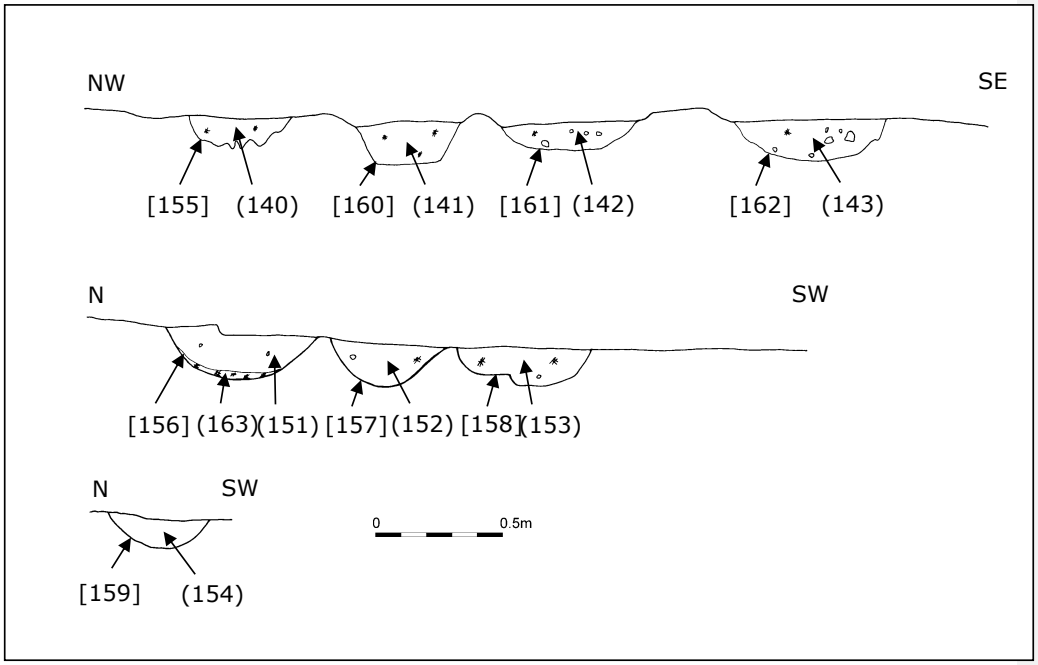


Fig 10 Sections of group of pits/postholes [155]-[162] located in Field 2

Fig 11 Section through ditch [102]

Fig 12 Section through ditch [106]

Fig 13 Section through burnt pit [110]

Fig 14 Section (slot 3) through ditch [113]

Fig 15 Section through burnt pit [118]

Fig 16 Section through ditch [120]

Fig 17 Section through ditch [126]

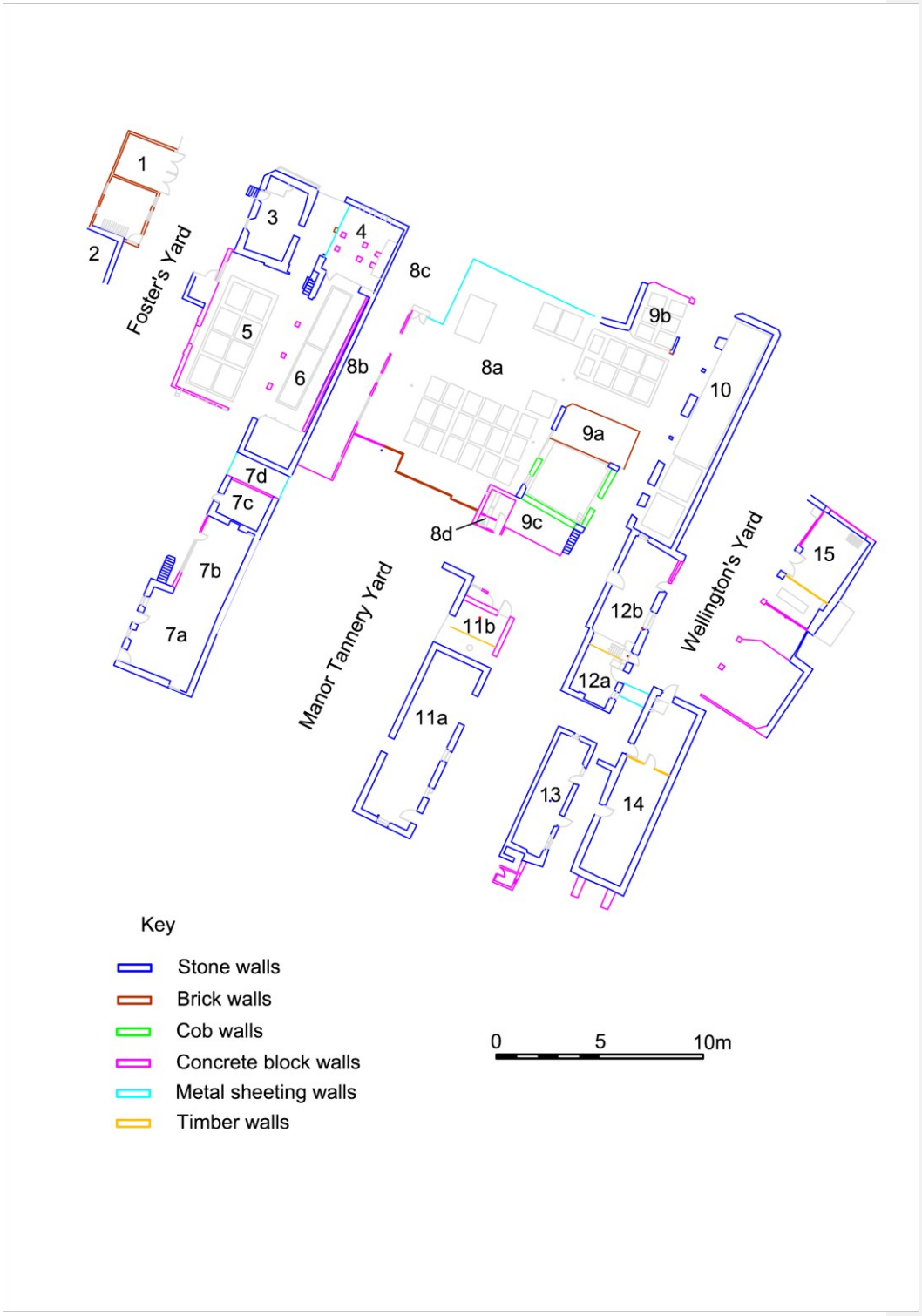


Fig 18 Buildings location plan showing construction materials

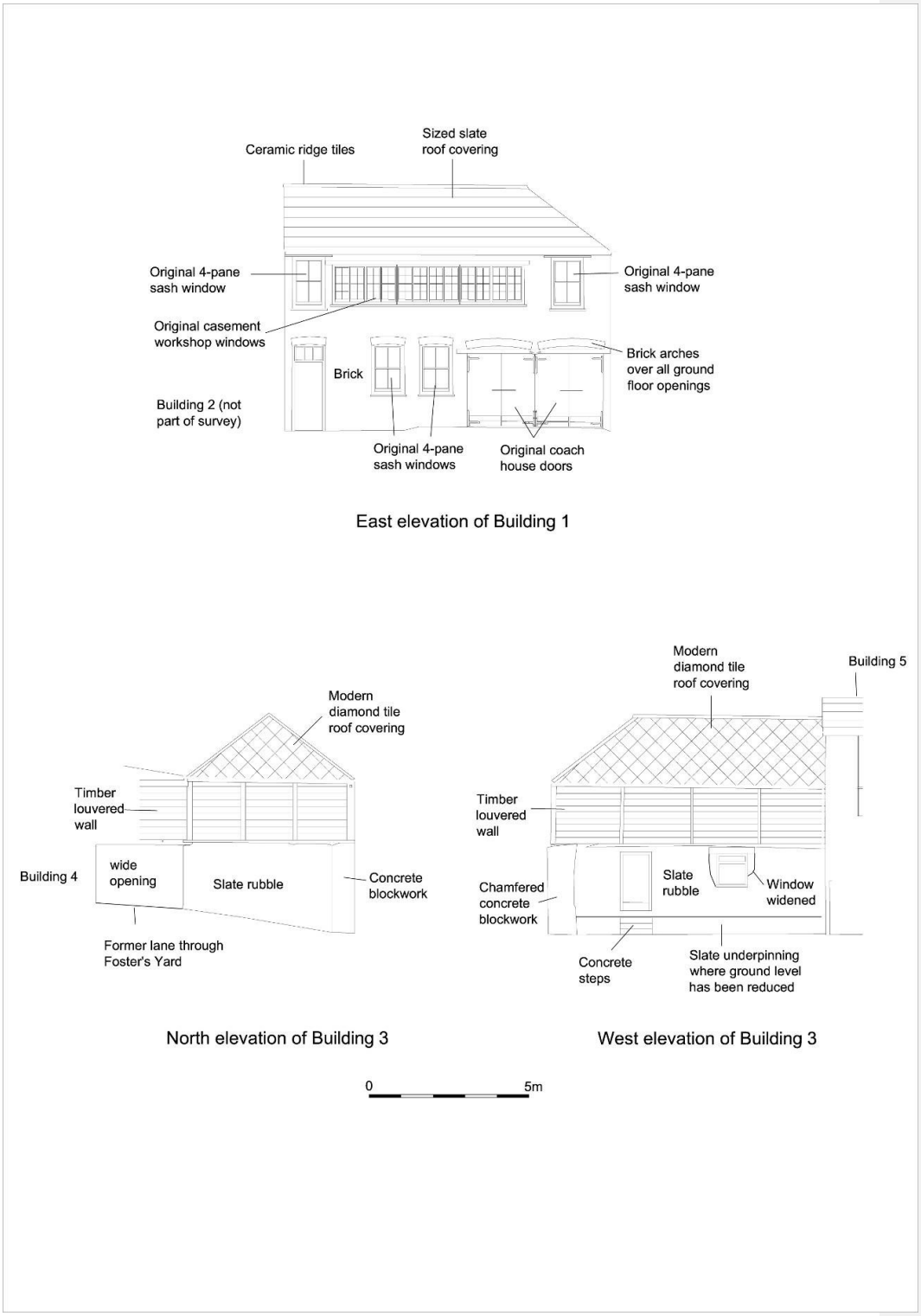


Fig 19 Buildings 1 and 3 elevations

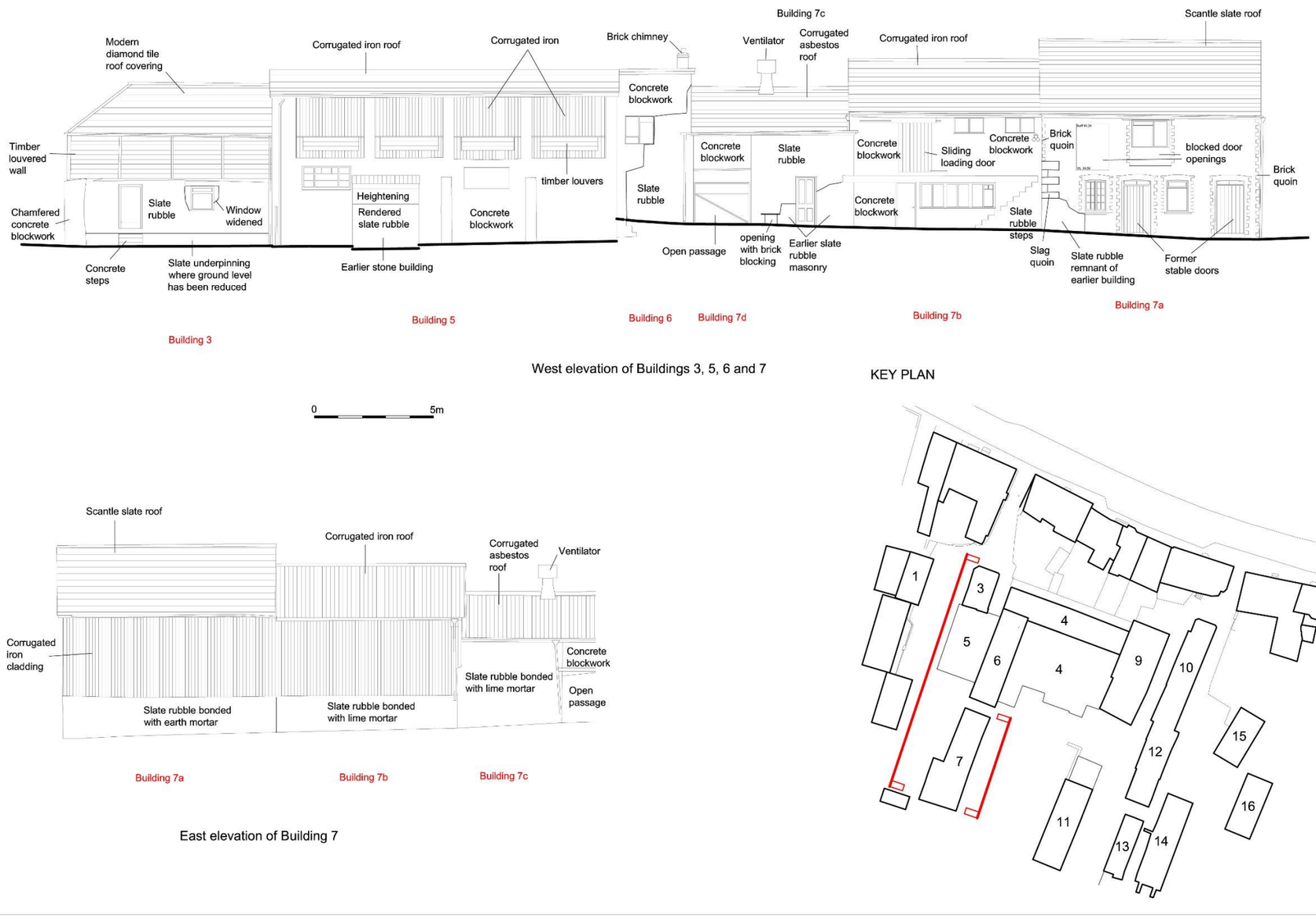


Fig 20 Buildings 3, 5, 6 and 7 elevations

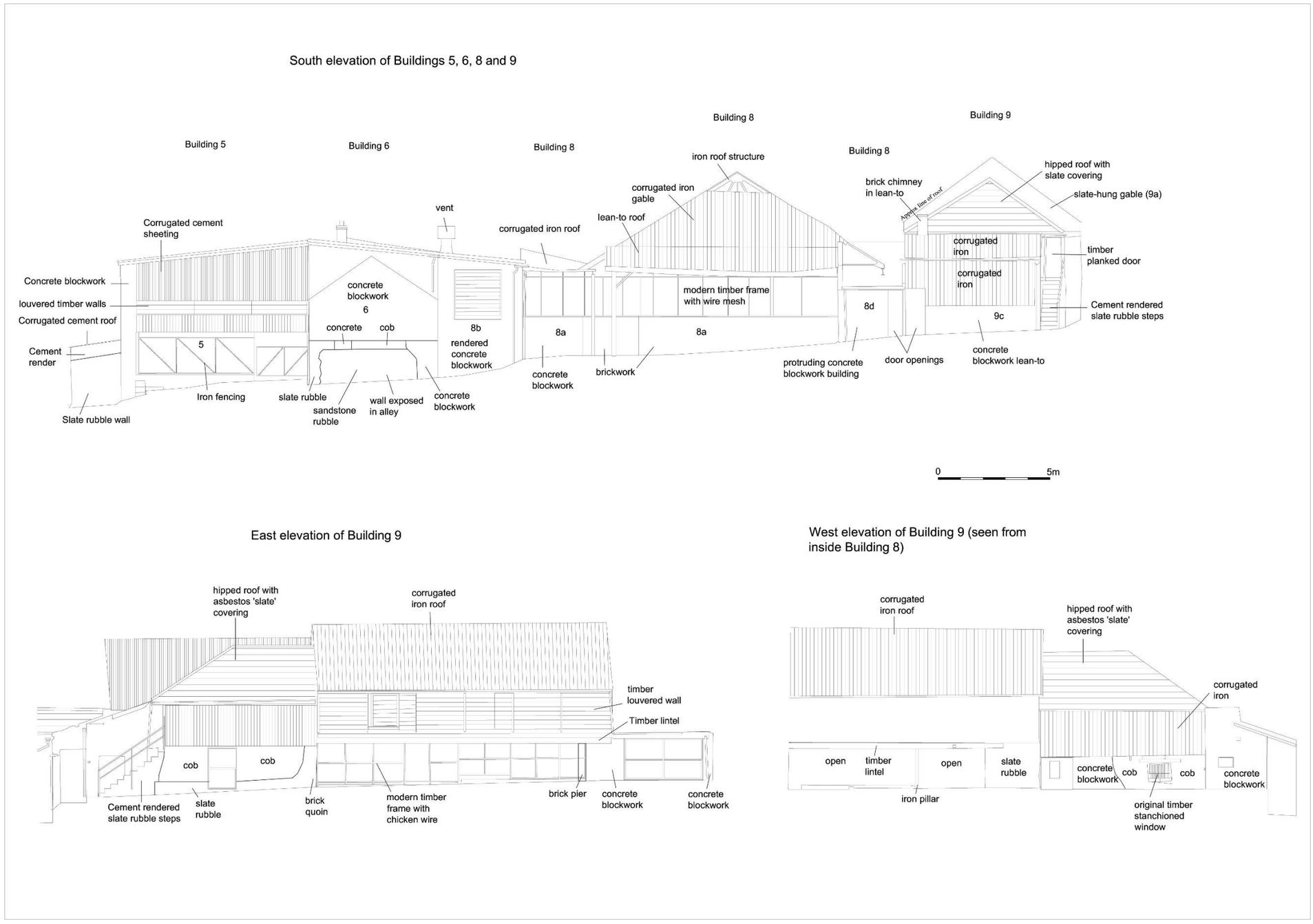


Fig 21 Buildings 5, 6, 8 and 9 elevations

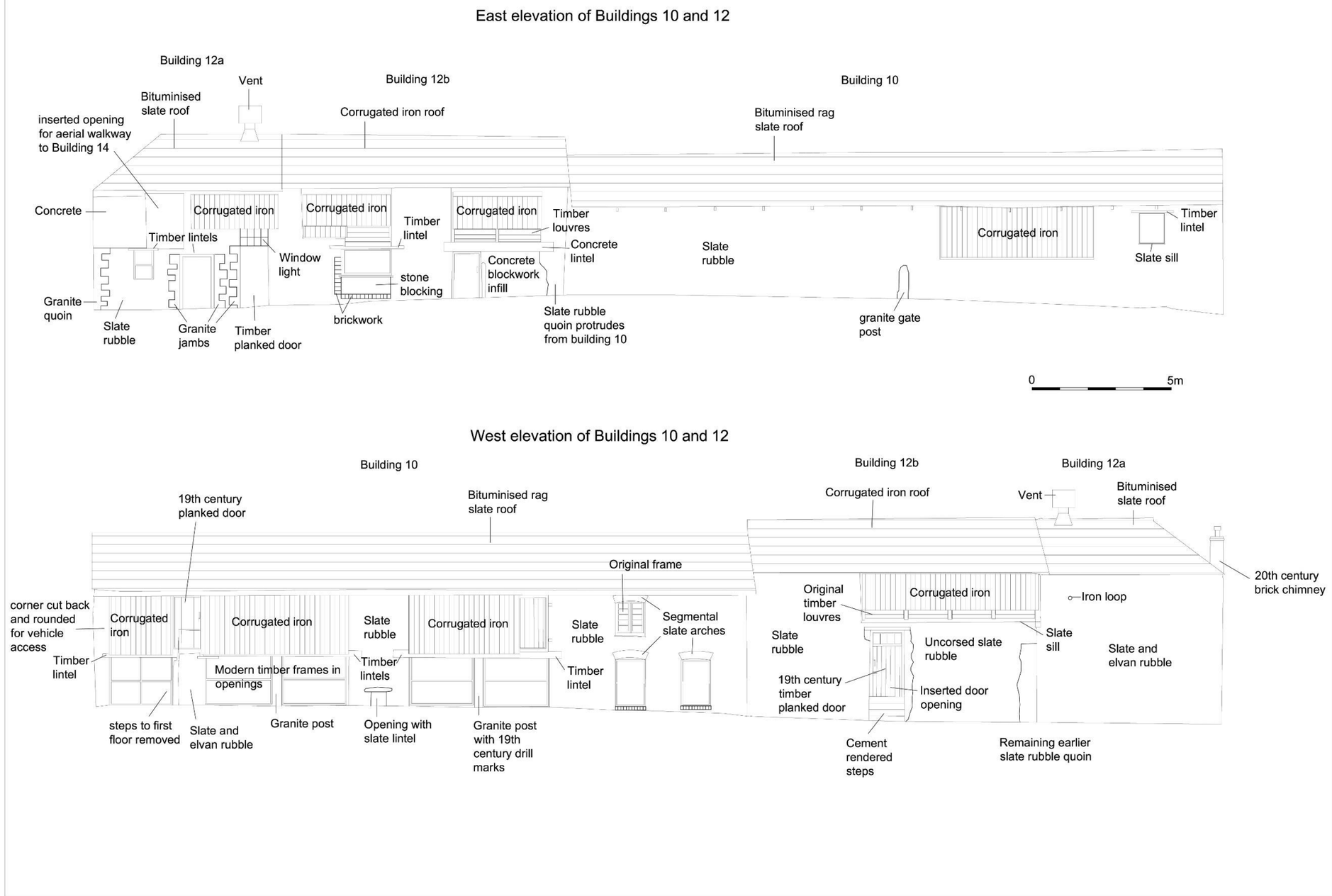
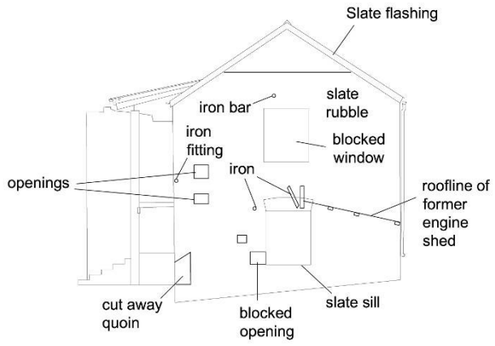
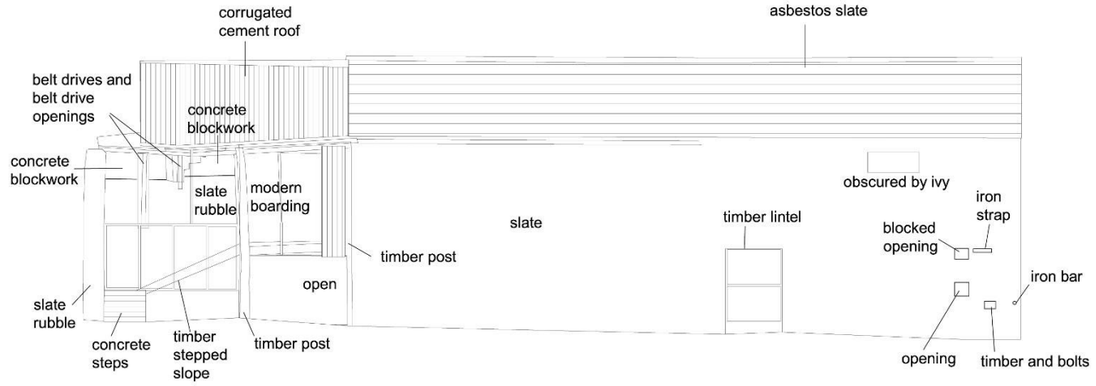


Fig 22 Buildings 10 and 12 elevations

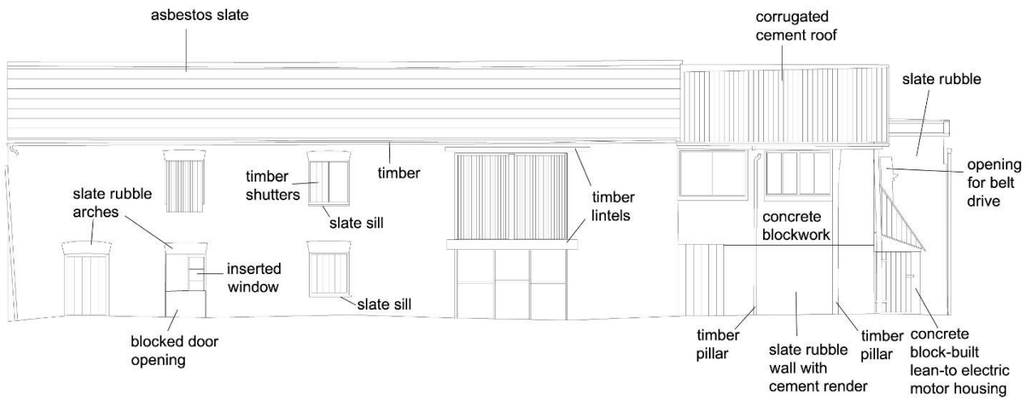


South elevation of Building 11a



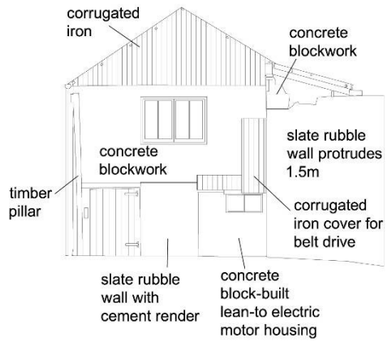
West elevation of Building 11b

West elevation of Building 11a



East elevation of Building 11a

East elevation of Building 11b



North elevation of Building 11b

Fig 23 Building 11 elevations

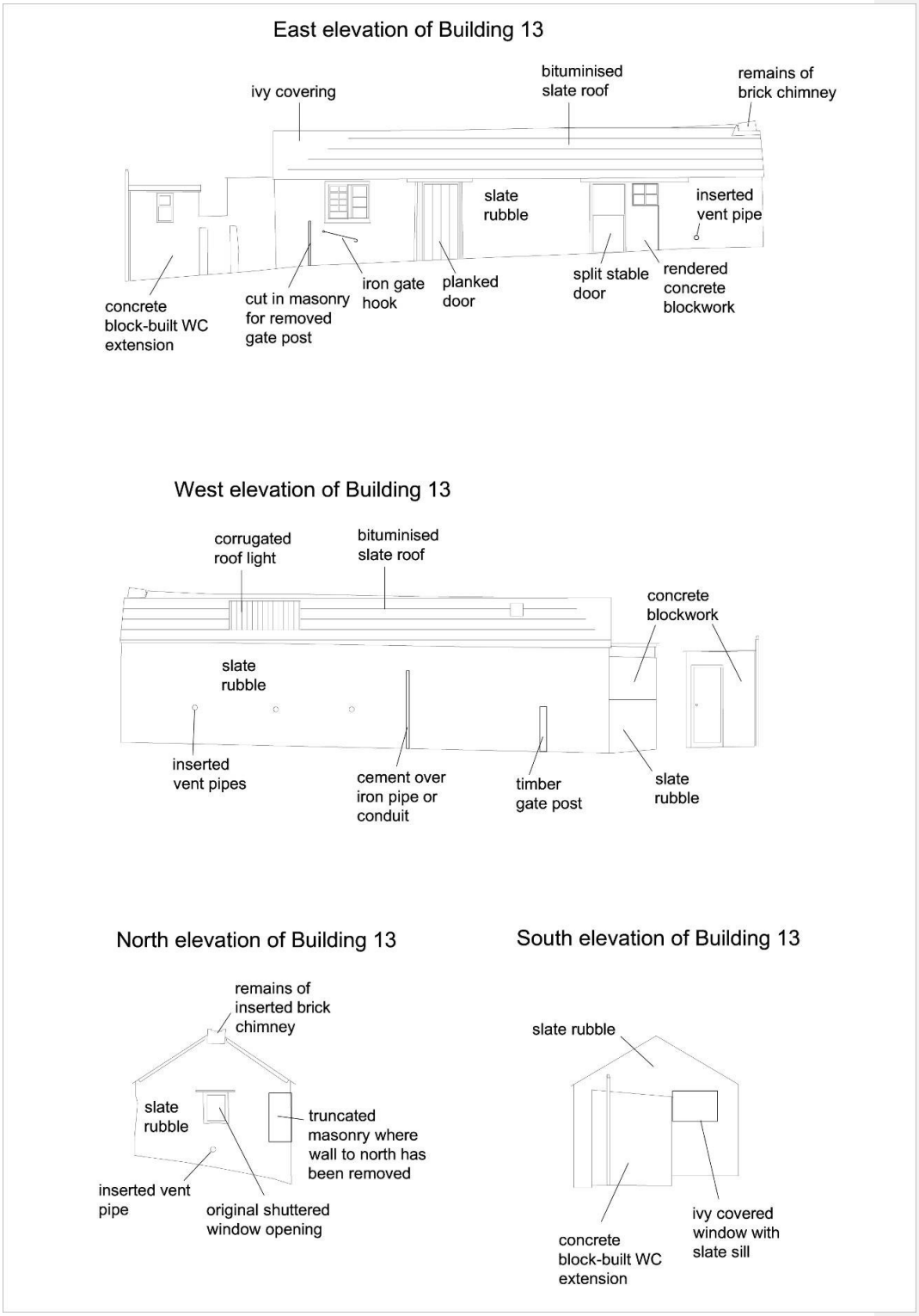


Fig 24 Building 13 elevations

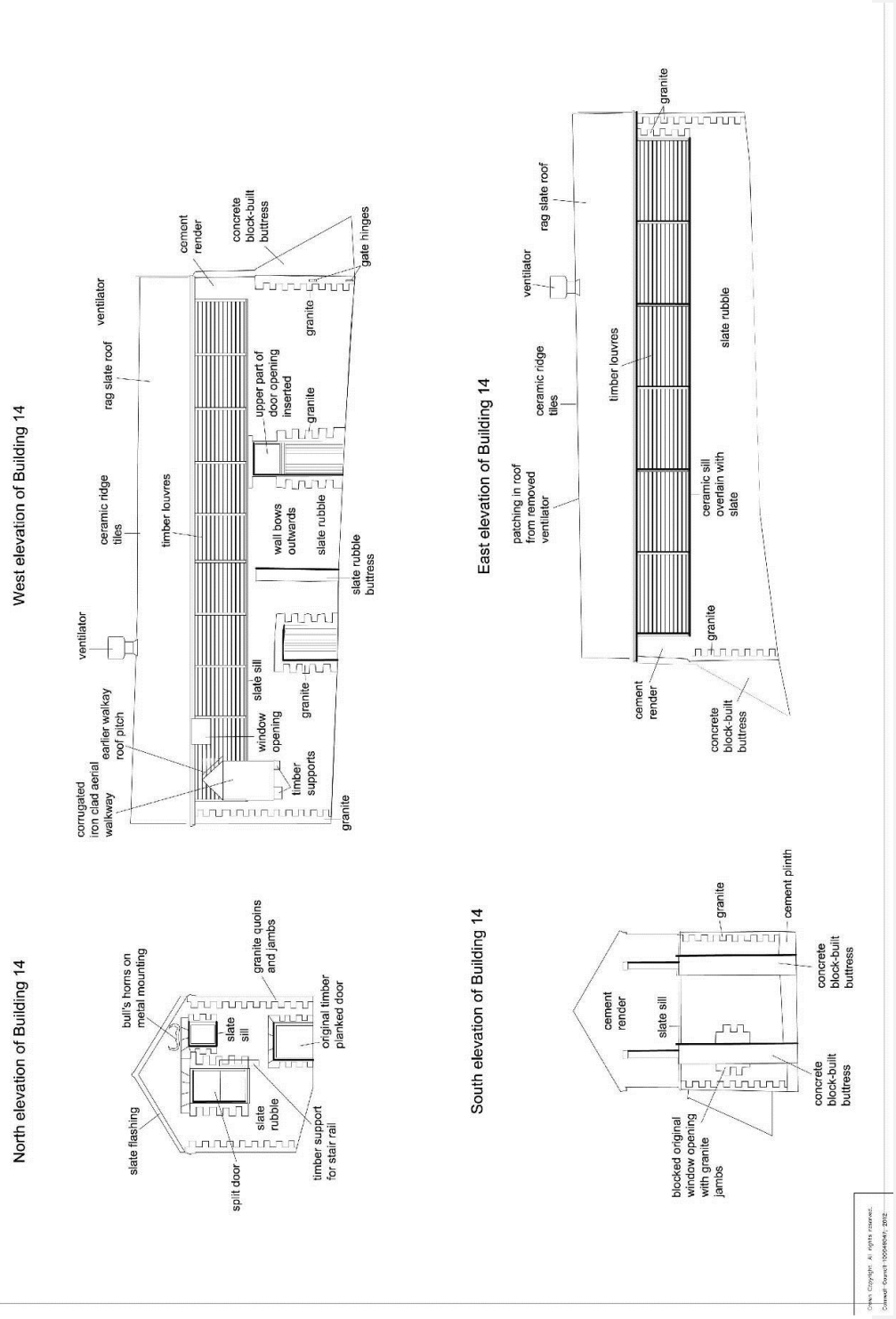


Fig 25 Building 14 elevations

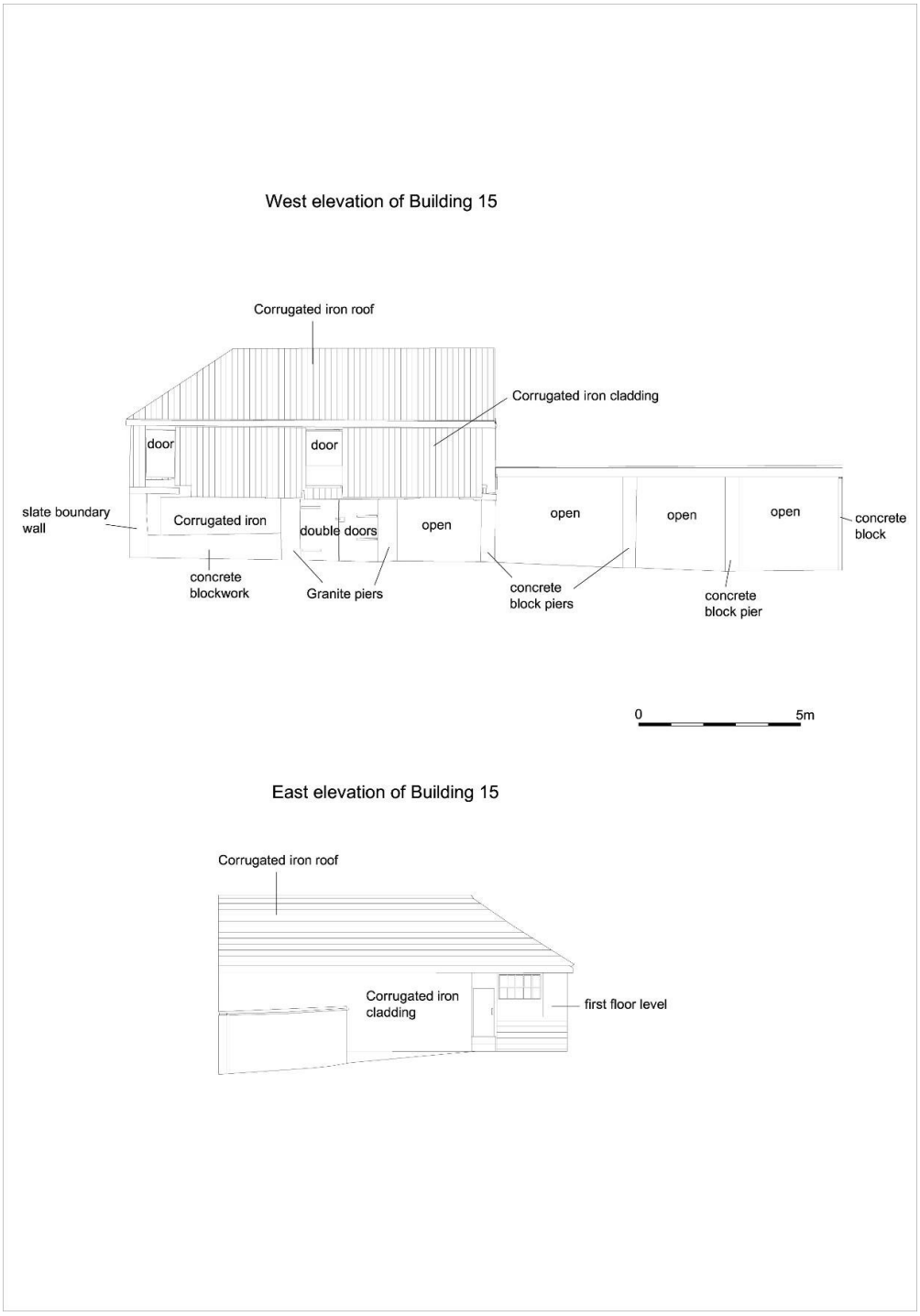


Fig 26 Building 15 elevations

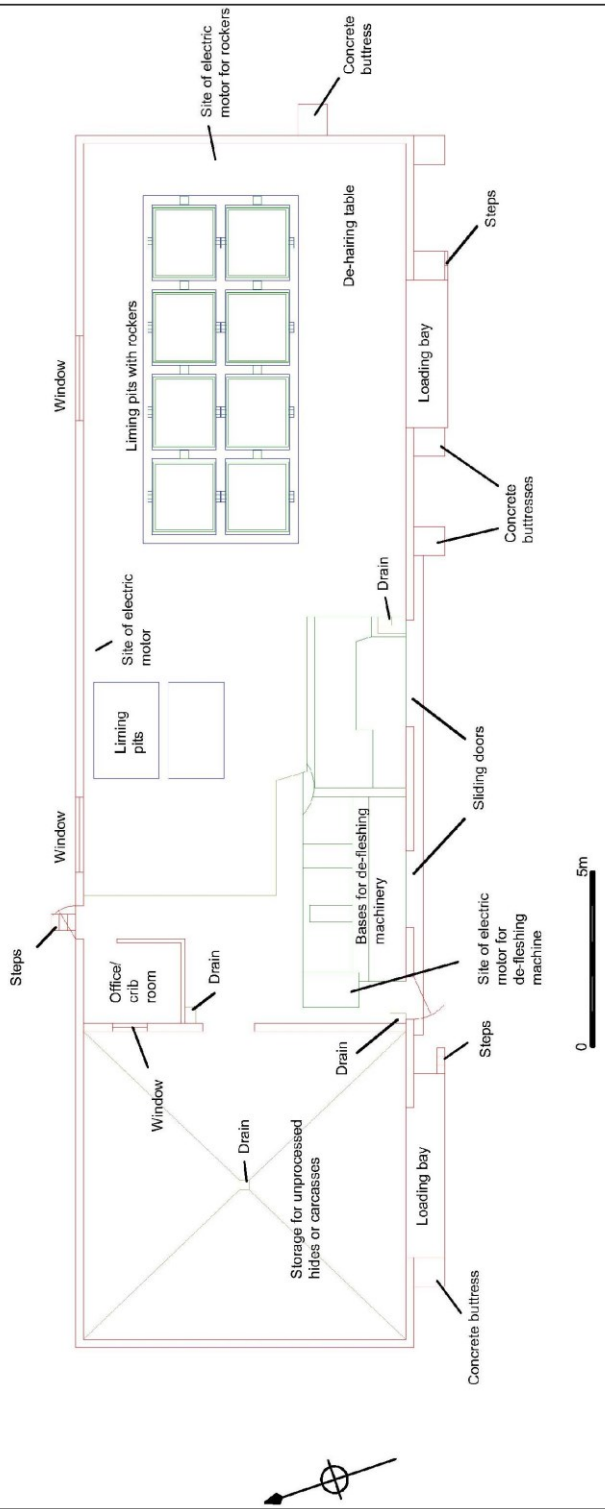


Fig 27 Building 18 plan

Fig 28 Buildings 1 (foreground) and 2, east elevation (frontage)

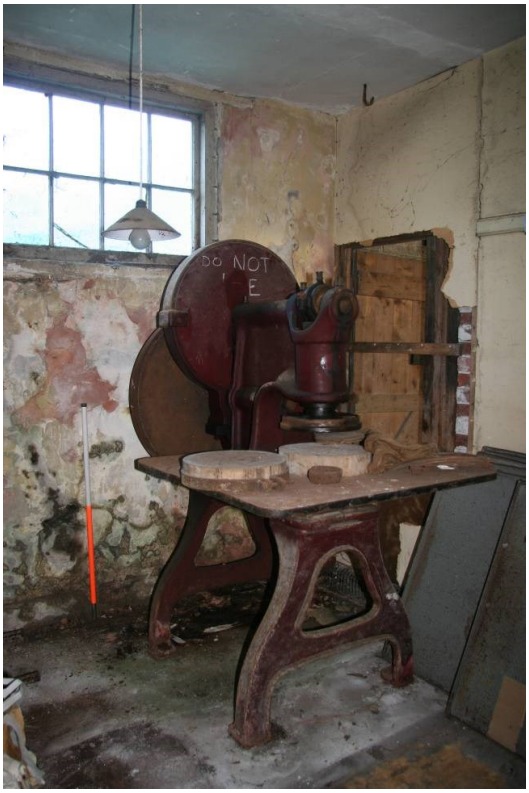


Fig 29 Machine on ground floor of Building 1

Fig 30 First floor of building 1 looking north-east

Fig 31 Building 3, west elevation (frontage)

Fig 32 Building 3, ground floor interior looking north

Fig 33 Building 3, first floor interior looking north-west

Fig 34 Buildings 3/4, ground floor interior looking south. Site of former lane between Buildings 3 and 4.

Fig 35 Building 4, machine on first floor looking north-east

Fig 36 Building 4, first floor interior looking north

Fig 37 Building 5, west elevation

Fig 38 Building 5, ground floor interior looking north-west

Fig 39 Building 5, machine on ground floor looking north-west

Fig 40 Building 5, first floor interior showing drying loft fan, drive wheels and belts looking north-west

Fig 41 Building 6, ground floor interior looking north-east showing tanning pits with rockers

Fig 42 Building 6, first floor interior looking north

Fig 43 Building 6, machine on first floor looking north-west

Fig 44 Building 6, electric motor driven machine on first looking south-west

Fig 45 Building 6, machine on first looking east

Fig 46 Buildings 6, 7d and 7c, west elevation

Fig 47 Buildings 7b, west elevation

Fig 48 Buildings 7a, west elevation

Fig 49 Building 7a, ground floor interior looking west

Fig 50 Buildings 7a and 7b, first floor interior looking north-east

Fig 51 Buildings 7c and 7d, first floor interior looking north-west

Fig 52 Building 8a, south elevation

Fig 53 Building 8a, interior looking north-east

Fig 54 Building 8a, interior looking east to west elevation of Building 9a

Fig 55 Building 8b, interior looking north, showing machine and drive belts

Fig 56 Building 8c, interior looking north-east

Fig 57 Building 9, east elevation of 9a and 9c

Fig 58 Building 9a, interior looking south-west

Fig 59 Building 9a, ground floor interior looking south

Fig 60 Buildings 9a and 9b, ground floor interior looking north

Fig 61 Building 9a, first floor interior showing adjustable louvered opening

Fig 62 Building 10, west elevation

Fig 63 Building 10, east elevation

Fig 64 Building 10, first floor interior looking north

Fig 65 Building 11, east elevation

Fig 66 Building 11b, east and north elevations

Fig 67 Building 11b, west elevation

Fig 68 Building 11a, south elevation

The ghosting of a roofline and slots towards the left indicate a former shed which contained an engine

Fig 69 Building 11a, ground floor interior looking south

Fig 70 Building 11b, ground floor interior looking east

Fig 71 Building 11b, west elevation showing wheel and belt drives for mills

Fig 72 Building 11b, ground floor interior of north half (store for milled oak bark)

Fig 73 Building 11b, hatchway in first floor and worn beams associated with former Valonia mill above

Fig 74 Building 11b, first floor interior looking south

Fig 75 Building 12, west elevation

Fig 76 Building 12b, east elevation

Fig 77 Building 12b, ground floor interior looking south

Fig 78 Building 12b, rolling machine at south end of ground floor

Fig 79 Building 12b, first floor interior looking south

Fig 80 Building 13, west elevation

Fig 81 Building 13, interior looking south

Fig 82 Aerial walkway between buildings 12 and 14 looking north

Fig 83 Building 14, north elevation

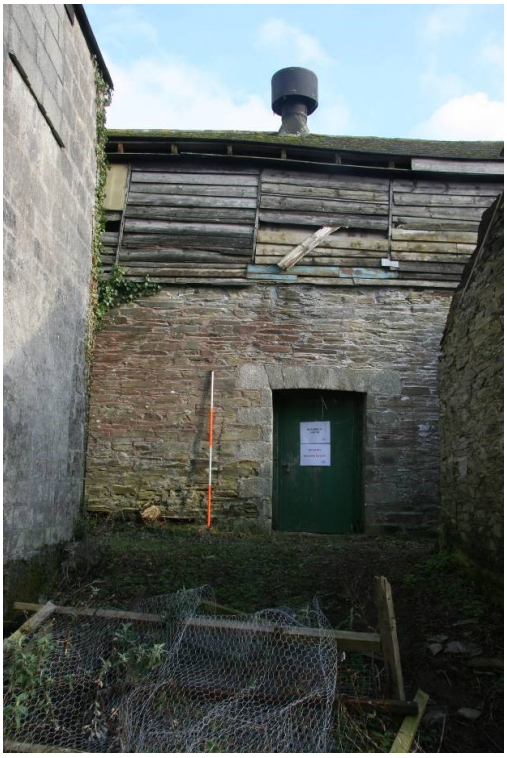


Fig 84 Building 14, part of west elevation

Fig 85 Building 14, east elevation

Fig 86 Building 14, ground floor interior of northern room looking south

Fig 87 Building 14, ground floor interior of southern room looking south

Fig 88 Building 14, first floor interior looking south

Fig 89 Building 15, looking east

Fig 90 Late 20th century blockwork at S end of Building 15

Fig 91 Ground floor interior of Building 15, looking NE

Fig 92 First floor interior of Building 15, looking N

Fig 93 Exterior of Building 18 (20th century limes shed), looking NW

Fig 94 Interior of Building 18, looking E

Fig 95 Liming pits inside building 18, plus cleaning shovel

Fig 96 Possible stay to support the drive shaft uncovered at the eastern end of Building

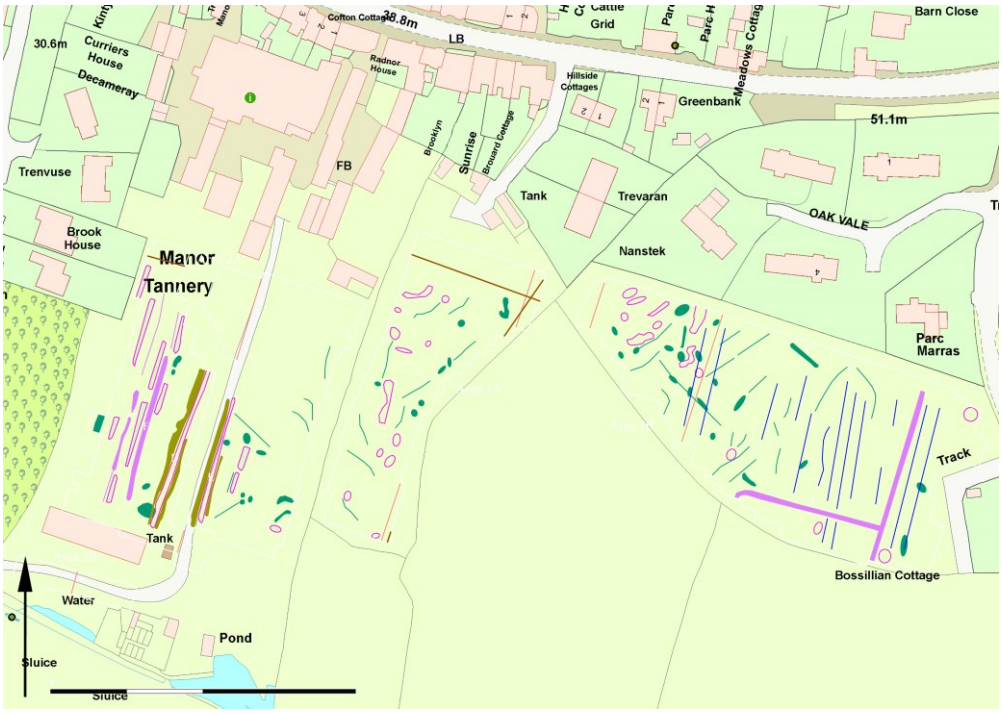


Fig 97 Geophysical survey results overlain on Ordnance Survey digital mapping

Appendix 1 Finds catalogue

A total of 33 artefacts were recovered during this project. The site code is MTG11.

Pottery comprises the largest number of finds (20 sherds) with glass forming the next largest category (10 shards). There is also a flint, tile and metalwork, within the assemblage.

15 artefacts are unstratified, derived from the topsoil stripping. The remaining artefacts were collected from sealed features or layers and were recorded by context.

The total number of finds from each field and context are summarised in the tables below.

Context No: Field 4. Topsoil (100)

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Medieval	12g	4		1
Post-Medieval	77g	4		1
Stonework				
Flint	29g	1		1
Glass				
Post-Medieval	32g	5		1
Clay				
Tile Ridge	22g	1		1

4 sherds Cornish Medieval Coarseware 13th to 14th centuries.

4 sherds Post-Medieval Glazed Red Earthenware 17th to 18th centuries.

1 ridge tile fragment. Medieval 13th to 14th centuries.

5 shards of Post-Medieval green bottle glass. 18th to 19th centuries.

1 waste flint. Prehistoric

Context No: Field 4. (117) Fill of ditch [113]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Medieval	2g	1		1

1 sherd Cornish Medieval Coarseware 12th to 13th centuries.

Context No: Field 4. (128) Fill of ditch [126]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Medieval	9g	1		1
Modern	68g	2		1
Glass				
Modern	319g	5		1
Metalwork				

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Iron	146g	1		1

1 sherd Cornish Medieval Coarseware 13th to 14th centuries.

2 sherds Modern White Glazed Stoneware (china) 19th to 20th centuries.

4 shards of Modern green bottle glass 19th to 20th centuries.

1 piece ornamental Modern glass 19th to 20th centuries.

1 Iron staple.

Context No: Field 1. (191) Fill of ditch [188]

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Medieval	15g	5		1
Post-Medieval	89g	3		1

5 sherds Cornish Medieval Coarseware 13th to 14th centuries.

3 sherds Post-Medieval Glazed Red Earthenware 17th to 18th centuries.

Discussion

Very few artefacts were recovered from the excavated features across the site. Those that produced artefacts included ditch [113], ditch [126] and ditch [188]. Apart from the single flint which is prehistoric in date, the oldest artefacts found are sherds of Cornish medieval pottery dating from the 12th to 14th centuries. A scattering of sherds from the later medieval and post-medieval periods occurred across the site. This whole assemblage is typical of that obtained from most Cornish fields close to farming communities, most of the finds being derived from domestic waste used as manure to improve the fields.

Appendix 2 Context index

Context number	Field number	Cut/Build /Deposit	Description
100	F4	D	Topsoil- dark greyish brown silty clay
101	F4	D	Natural light grey-brown clay 0.25m deep with decayed shillet bedrock at the base
102	F4	C	Cut of large NE-SW ditch, 2.5m wide and a maximum depth of 0.8m. Irregular profile with almost stepped sides and flat base
103	F4	D	Upper fill of Ditch [102]. 0.25m deep reddish brown friable silty clay
104	F4	D	Fill of ditch [102]. Greyish yellow silty clay up to 0.38m deep
105	F4	D	Primary fill of Ditch [102]. Compact pinkish brown silty clay containing frequent stones up to 0.4m deep
106	F4	C	Cut of E-W ditch, 1.2m wide with U-shaped profile 0.5m deep
107	F4	D	Upper fill of Ditch [106]. Up to 0.35m deep. Red-brown loose silty clay with frequent small shillet fragments
108	F4	D	Primary fill of Ditch [106]. Red-brown silty clay with numerous shillet fragments and some stones up to 0.2m deep
109	F4	D	Burnt spread at west end of F4. Deposit of charcoal rich pink-brown clay with frequent burnt shillet fragments and large pieces of charcoal up to 0.07m thick
110	F4	C	Cut of burnt pit at west end F4. Sub-circular in plan. A diameter of 1.1m and a shallow concave profile that reached a depth of 0.15m
111	F4	D	Fill of Pit [110]. Reddish-brown silty clay containing a few stones
112	F4	D	Primary fill of Pit [110]. Black-brown charcoal rich silty clay with some larger fragments of charcoal, and burnt clay
113	F4	C	Cut of ditch running NW to SE. U-shaped profile 0.8m wide and 00.25m deep
114	F4	D	Fill of Ditch [113], slot 1. Yellow-brown silty clay with numerous shillet fragments
115	F4	D	Primary fill of Ditch [113], slot 2. tightly packed fragmented shillet in a grey-brown silty clay 0.15m deep
116	F4	D	Upper fill of Ditch [113], slot 3. 0.1m of dark red-brown silty clay with a few shillet fragments
117	F4	D	Primary fill of Ditch [113], slot 3. shillet in a grey-brown silty clay 0.30 deep
118	F4	C	Cut of burnt pit, east end of F4. Sub-circular bowl shaped pit [118]. Diameter of 1.1m and a depth of 0.15m
119	F4	D	Fill of Pit [118]. Dark reddish brown silty clay with numerous charcoal fragments
120	F4	C	Cut of ditch. 1m wide, a wide V-shaped profile and maximum depth of 0.3m
121	F4	D	Fill of Ditch [120] 0.25m deep
122	F4	C	Short ditch running from north-east to south-west 0.5m wide
123	F4	D	Fill of Ditch [122]. A dark red-brown silty clay

Context number	Field number	Cut/Build /Deposit	Description
124	F4	D	Upper fill of Ditch [113], slot 4. 0.15m of dark yellow-brown silty clay
125			Not used
126	F4	C	Cut of ditch 2.6m wide, 0.5m deep, with a flat base sloping up to the north
127	F4	D	Primary fill of ditch [126]. red-brown silty clay with occasional shillet fragments 0.25m deep
128	F4	D	Second fill of ditch [126]. 0.15m of dark grey-brown greasy silty clay
129	F4	D	Fill of ditch [126]. 0.06m deep fill of lime mortar mixed with roofing slates and stone
130	F4	D	Upper fill of ditch [126]. 0.12m deep dark grey-brown silty clay with a few stones and some lenses of re-deposited natural and lime mortar fragments
131	F4	D	Primary fill of Ditch [120] against N baulk. Dark yellow-brown clay with frequent shillet fragments 0.18m deep
132	F4	D	Bank material to east of Ditch [120]
133	F2	C	Cut of West Ditch of field boundary. 1.2m wide
134	F2	C	Cut of ditch terminal. 0.8m wide by 0.25m deep with a U-shaped profile
135	F2	D	Fill of Ditch terminal [134]. Red-brown silty clay containing angular stones and burnt granite
136	F2	D	Turf in F2
137	F2	D	Topsoil in F2. 0.25m of grey-brown clay loam
138	F2	D	Top fill of burnt pit [146]. Light yellow-brown clay up to 0.08m deep
139	F2	D	Fill of small burnt pit [147]. 0.14m of grey-brown clay loam with numerous large charcoal fragments
140	F2	D	Fill of W pit in group of 4. Fill of [155]. Pink-brown clay containing charcoal fragments
141	F2	D	Fill of pit in group of 4. Fill of [160]. dark brown-grey silty clay with frequent charcoal fragments
142	F2	D	Fill of pit in group of 4. Fill of [161]. dark brown-grey silty clay mottled with charcoal and containing numerous shillet fragments
143	F2	D	Fill of E pit in group of 4. Fill of [162]. Dark pinkish brown silty clay mottled with charcoal
144	F2	C	Cut of irregular shaped pit/gully. oval shaped, 1.5m long and 0.5m wide with the long axis orientated north to south
145	F2	D	Fill of irregular pit/gully [144]. A red, grey-brown clay loam with occasional charcoal flecks
146	F2	C	Cut of a sub-oval shaped pit. 1.5m x 0.5m
147	F2	C	Cut of an oval pit 0.7m x 0.6m
148	F2	D	Lower fill of Pit [147]. Red, grey-brown silty clay with some shillet fragments and flecks of charcoal 0.07m deep
149	F2	D	Fill of pit with Modern china, dark red-brown silty clay
150	F2	C	Cut of sub-oval pit filled by (149). 1.5m long x 0.5m wide
151	F2	D	Fill of Pit [156] 0.15m deep. Grey-brown silty clay heavily mottled with charcoal
152	F2	D	Fill of Pit [157] grey-brown silty clay heavily mottled with charcoal

Context number	Field number	Cut/Build /Deposit	Description
153	F2	D	Fill of pit [158]. Grey-brown silty clay heavily mottled with charcoal
154	F2	D	Fill of Pit [159]. Dark grey-brown silty clay mottled with charcoal
155	F2	C	Cut of pit. Sub-oval measuring 0.4m x 0.3m orientated north-west to south-east. Irregular base and *c*0.12cm deep
156	F2	C	Cut of pit. Circular with a diameter of 0.60. U-shaped profile 0.17m deep
157	F2	C	Cut of pit. circular with diameter of 0.42m and a depth of 0.18m
158	F2	C	Cut of pit. Circular with a diameter of 0.52m. Irregular profile of 0.15m depth
159	F2	C	Cut of pit. Circular with a diameter of 0.4m. U-shaped in profile, 0.1m deep
160	F2	C	Cut of pit. Sub-circular, with a diameter of 0.5m. Steep-sided, flat bottomed
161	F2	C	Cut of pit. Oval shaped, measured 0.7m x 0.53m. Shallow U-shaped profile of 0.1m depth
162	F2	C	Cut of pit. Sub-circular in shape, 0.6m in diameter, with a U-shaped profile, 0.15m deep
163	F2	D	Lower fill of Pit [156] a red-brown silty clay 0.03m deep
164	F2	D	Fill of burnt pit. Charcoal rich grey-black clay loam with fragments of burnt red-brown clay 0.07m deep
165	F2	C	Cut of shallow pit. Circular in shape with a diameter of 1m, a maximum depth of 0.07m
166	F4	C	Cut of shallow pit. Circular in shape with a diameter of 1m, a maximum depth of 0.03m
167	F4	D	Fill of Pit [166]. Dark grey-brown, black clay loam with numerous charcoal fragments and burnt stone
168	F4	C	Cut of pit. sub-circular shallow bowl shaped pit with a diameter of 1.5m and depth of 0.07m
169	F4	D	Fill of Pit [168]. Dark grey, brown-black clay loam with numerous charcoal fragments and burnt stone
170	F1	C	Cut of Trench. 1.5m wide, with a square shaped termination at its eastern end
171	F1	D	Fill of Trench [170]. Grey-brown clay loam with modern concrete block fragments, other building debris, and plastic sheeting
172	F1	C	Cut of Trench. 1.5m wide with a square shaped termination at its eastern end
173	F1	D	Fill of Trench [172]. grey-brown clay loam with modern concrete block fragments, and roofing slates
174	F1	C	Cut of Trench. 1.5m wide with a square shaped termination at its eastern end
175	F1	D	Fill of Trench [174]. Grey-brown clay loam with re-deposited yellow-brown shillet and clay, cinders and ash, white lime mortar, modern concrete block fragments, and roofing slates
176	F2	C	Cut of trench (waterpipe). Flat bottomed trench, 0.8m wide and 0.15m deep
177	F2	D	Fill of Trench [176]. Dark grey-brown clay loam containing modern white china

Context number	Field number	Cut/Build /Deposit	Description
178	F1	C	Eastern most ditch of removed field boundary. 0.5m wide. Very shallow, a maximum depth of 0.15m
179	F1	C	Western most ditch of removed field boundary. 0.5m wide. Very shallow, a maximum depth of 0.1m
180	F1	B	Removed field boundary running from NNE to SSW
181	F1	C	E – W running ditch butting [179] 0.5m wide
182	F1	C	Pit cut oval in plan, measuring 0.45m x 0.3m
183	F1	D	Fill of Pit [182] grey, black-brown clay loam with some stone fragments and flecks of charcoal.
184	F1	C	Pit cut with diameter of 0.2m and 0.2m deep. Steep sides and flat base
185	F1	D	Fill of pit [184] grey-brown clay loam with flecks of charcoal
186	F1	C	Cut of trench/ditch 1m wide and 0.15m deep. With shallow sloping sides and a flat base
187	F1	D	Fill of ditch [186] organic rick black, grey-brown silty clay containing sherds of non diagnostic white china
188	F1	C	Cut of main N/S ditch 2m wide and 0.35m deep. Traced for a length of *c*50m but truncated at its north and south ends. Steep, convex sides with a flat base
189	F1	D	Lowest fill of Ditch [188] yellow, grey-brown silty clay with a few shillet fragments 0.1m deep
190	F1	D	Fill of Ditch [188] grey-brown clay loam 0.2m deep that contained some shillet fragments and charcoal flecks
191	F1	D	Top fill of Ditch [188] mixed dark grey-brown, and red-brown clay loams. Containing five sherds of medieval pottery and three sherds of post-medieval pottery
192	F1	D	Fill of ditch [178] a red, grey-brown clay loam 0.15m deep
193	F1	D	Fill of ditch [179] red, grey-brown clay loam 0.1m deep
194	F1	D	Fill of ditch [181] grey-brown clay loam
195	F2	D	Natural in field 2. 0.05m of light grey-brown clay overlying decayed natural shillet bedrock
196	F2/4	C	Cut of boundary ditch 1m wide
197	F2/4	D	Fill of ditch [196] a red, grey-brown clay loam
198	F2	D	Fill of ditch [133] a red, grey-brown clay loam

Appendix 3 Samples index

Sample number	Field number	Context number	Description	Flots quantity
1	4	(109) 1 bag	Burnt spread	1 bag
2	4	(112) 3 bags	Burnt layer and pit [110]	1 bag
4	4	(119) 1 bag	Burnt pit fill [118]	1 bag
5	2	(138) 2 tubs	Burnt pit [146]	1 bag
10	2	(151)(163) Mixed 1 tub	Pit fill	1 bag
14	2	(143) 1 tub	Pit fill	1 bag
15	1	(167) 1 tub	Fill of pit [166]	1 bag
17	1	(183)	Fill of pit [182]	1 bag

Appendix 4 Planning brief

BRIEF FOR ARCHAEOLOGICAL ASSESSMENT

Site: The Manor Tannery Grampound
Date: 22nd April, 2010
Agent: Rosemullion Homes
Historic Environment Planning Advice Officer: Dan Ratcliffe, Cornwall Council, Room237/238, 39 Penwinnick Road, St Austell, Cornwall PL25 5DL

This brief is only valid for six months. After this period the Historic Environment Advisor (Archaeology) (HEAA) should be contacted. The contractor is strongly advised to visit the site as there may be implications for accurately costing the project.

1. Introduction

This brief has been written by the HEAA to guide the production of a WSI for a phased programme of investigation and works as required by planning conditions imposed on the above site. This brief primarily concerns the scope of initial assessment and evaluation works, but the WSI should set out how this initial phase will form the first phase of a wider programme of archaeological works to reduce and mitigate against the effects on the archaeological resource of the development in question.

2. Site Location and Description

The site, also known as Croggans Tannery, is located at OS Grid Reference SW 93590 48210 at an approximate height of 40m OD on a westerly facing slope. The tannery is understood to not have operated for some years. The site comprises areas dealt with under separate planning consents comprising the buildings of the Tannery itself, and land to the rear of the buildings along the current street frontage on which it is proposed to develop new build homes.

3. Planning Background

The site to which this brief refers is currently subject to a number of consents on which conditions have been placed to control works which have an impact on the significance of historic assets. 07/01971 relates to the conversion of the former Tannery buildings (Listed Grade II) to residential use. 07/01969 relates to the development of land to the rear of the main complex which will be developed as housing. Consents to 07/01969 (condition 28) and 07/01971 (condition 27) both include the following wording;

No development shall take place until a programme of archaeological and historic building work to include a watching brief and a geophysical survey has been secured and implemented in accordance with a written scheme of investigation to be submitted to and approved in accordance with a written scheme of investigation to be submitted to and approved in writing by the Local Planning Authority in consultation with the County Archaeologist.

A range of further conditions have been applied to 07/01969 to control details of the conversion and demolition of the Tannery buildings, and secure reuse within the complex of machinery and stonework where it is not to remain in situ. Work undertaken in satisfaction of this brief should be capable of providing adequate information for these conditions to be addressed. In particular this work should

provide information on the relative significance and conservation options of the range of tanning and lime pits around the complex. Condition 32 reads;

Prior to the works hereby approved to buildings 9 and 10 commencing a specification for the treatment of the lime/tanning pits within buildings 9 and 10 shall be submitted to and agreed in writing by the Local Planning Authority. The works hereby approved will be carried out in accordance with the agreed specification.

4. Archaeological Background

The development area has been recorded on the Cornwall and Scilly Historic Environment Record (HER) as PRN 22934 which reports that: *The tannery in Grampound is said to be the only tannery in Britain working in traditional fashion, and it is the last in Cornwall for making heavy leather. The oldest part of the plant is no longer in use but the original lime pits are extant together with old machinery operated by flat rods from a water wheel. The trench for the flat rods is still visible. The tannery has been here since medieval times but the present buildings are of various dates, including an early nineteenth century block. A small three sectioned thatched house of fifteenth / sixteenth century date is attached and is said to be the old manor house itself. The complex was listed in 1960, grade 2. Originally the tannery of the manor of Grampound, the tannery has been owned by the Croggan family since at least 1798.* Previous archaeological investigations at the site have included an English Heritage Report (NBR No: 105518), conducted in 2001. This work was undertaken shortly after the cessation of working at the site, and recorded the buildings using REDM measurement, through written description and historical and oral research and using 35mm and large format photography. The research showed that the site includes at least five partially amalgamated former burgage plots, probably dating in their overall plan to the medieval period. The report describes a remarkably in tact multi period tanning complex with in situ machinery, buildings and pits.

5. Requirement for Work

Development works will disturb, conceal and remove extant features and buried archaeological remains. A phased approach to the fulfilment of the archaeological conditions is proposed. This approach will begin with assessment and evaluation by geophysical survey, the scope of which is outlined here, but may also include future stages including further building recording and analysis, the production of a mitigation recording strategy likely to include excavation, post excavation assessment and analysis, reporting, outreach and archiving.

In order to understand the site and its potential for recording archaeological remains in the first instance an assessment is required. This would involve a desk based assessment; walk over survey and geophysical evaluation. This would assess and update the findings of the 2001 English Heritage Report (NBR No: 105518) and would provide evidence for any recommendations for further archaeological recording to be controlled by a further project design at the end of phase 1.

The site specific aims of Phase 1 are to:

- Draw together the historical and archaeological information about the site.
- Inform whether further archaeological recording of any extant remains is required and develop a statement of research questions which will guide the investigation and their relation to regional and national research frameworks.

- Inform whether original structure and/or architectural detail should be retained, especially where these matters are subject to the approval of 'details' conditions in consent 07/01971.
- Characterise and describe the significance of the tanning and lime pits around the site and develop a strategy for their conservation to inform the development of the specification required by condition 32 of 07/01971
- Inform whether or further archaeological recording of any potential buried remains is required.
- Inform the need for palaeo-environmental sampling across the site.
- Undertake an archaeological magnetometer survey
- Produce a report containing the geophysical data and the data in interpreted form.
- Inform whether archaeological recording of any potential buried remains is recommended.
- Produce a project design for the rest of a phased programme of works to be implemented under the existing conditions.
- Develop a statement detailing how, where appropriate, the local community and other interested parties will be informed about and engage with the investigation.

6. General Guidance

6.1 The archaeological contractor is expected to follow the code of the Institute for Archaeology (IfA). Production of the WSI should be guided by the relevant IfA *Standards and Guidance* and also by the guidelines given at 134 of the *PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide.*

6.2 All of the latest Health and Safety guidelines shall be followed on site.

6.3 Terminology will be consistent with the English Heritage Thesaurus.

6.4 Following discussion with the HEAA this work will inform the scope of further works required to deal with the archaeological implications of this development.

7. Results

7.1 An interim report shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall County Council Historic Environment Service and the appropriate museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format. This interim report should be capable of development, following further stages of work, into a final overall report on works at this site.

7.2 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.

7.3 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.
- Any recommendations for further investigation, and outreach
- A location map tied to the national grid and copies of all relevant historic maps and illustrative material.
- Relevant photographic and drawn illustrations, which should be cross referenced appropriately in the text.
- Statements of significance for each component of the site, indicating where appropriate the recommended treatment or mitigation of each.
- All specialist reports and assessments.
- A summary of the archive contents and date of deposition.
- A full bibliography and source index
- A copy of the brief and the approved WSI will be included as an appendix.

8. Archive Deposition

8.1 An ordered and integrated site archive will be prepared in accordance with *The Management of Archaeological Projects* (English Heritage 1992 2nd Edition) upon completion of the project. The requirements for archive storage shall be agreed with the appropriate organisation.

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

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

8.4 A summary of the contents of the archive shall be supplied to the HEAA.

9. Monitoring

9.1 The HEAA will monitor the work and should be kept regularly informed of progress.

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

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

Appendix 5 Written Scheme of Investigation

Manor Tannery and adjoining land at Grampound: Written Scheme of Investigation for archaeological works

Stage 2: mitigation recording during building development works

Client:	Linden Homes
Client contact:	Caroline Wheeleker
Client tel:	
Client email:	

Summary

A phased programme of archaeological work is required to inform planning decisions regarding the former Manor Tannery in Grampound. The programme follows a series of stages:

Stage 1 archaeological assessment

Stage 2 mitigation recording during building development works

Stage 3 archiving and analysis of results, production of archive report

Stage 4 final dissemination of results/publication (dependent on results of earlier work)

This document refers to the Stage 2 works; later stages of work will be informed by the results and may require an updated Written Scheme of Investigation (WSI).

Site history

Until its closure at the beginning of the year 2000, the Manor Tannery was one of the few tanneries in Britain capable of producing high grade heavy leather using traditional oak bark tanning techniques. Originally the tannery of the Manor of Grampound, it has been owned by the Croggan family since at least 1798.

Tanning and working with leather were important industries in the 19th and early 20th centuries in Cornwall, and the Historic Environment Record lists 32 tanyards, though there are likely to have been more than this. Documentary evidence indicates that many towns had tanneries, and in Grampound itself, the HER lists two sites, the other being the Fal Valley Tanyard, located to the west of the bridge. This has long been closed and little now remains of the tannery buildings, one of which was recently demolished, and no pits survive. Croggans was the last operating tanyard in the county, and one of the last two working tanneries in Devon and Cornwall. The oldest part of the plant has long been

disused but at least some of the earlier tanning pits survive together with machinery once operated by flat rods from a water wheel located in the valley bottom to the south. The trench for the flat rods was still visible in 2000.

Croggans Tannery produced the leather for the skin of the wooden framed boat in which the archaeologist Tim Severin sailed from Ireland to North America, re-enacting the fabled early medieval voyage of St Brendan.

A tannery has been sited here since medieval times and the present buildings are of various dates, mostly 19th and early 20th century. The present complex is said to be an amalgamation of smaller tanneries gradually taken over and absorbed by the Croggan family business. A small three-sectioned thatched house of 15th /16th century date fronting Fore Street is associated with the tannery and is said to be the former Manor House and the site of the Manorial Court. Houses fronting onto Fore Street were listed at Grade II in 1967 and parts of the industrial complex were listed in 1988. The rear part of the property is sited within a series of burgage strips which are distinct on historic and modern maps.

Due the interest in the traditional buildings and rare industrial processes the site, contents and buildings were recorded by English Heritage in 2000 (report NBR No: 105518, issued in 2001). This work was undertaken shortly after the cessation of working at the site, and recorded the buildings using REDM measurement, written description and historical and oral research and using 35mm and large format photography. The research showed that the site includes at least five partially amalgamated former burgage plots, probably dating in their overall plan to the medieval period. The report described a remarkably intact multi period tanning complex with *in situ* machinery, buildings and pits.

Project background

Planning consent has been granted by Cornwall Council for residential redevelopment of the rear part of the property (i.e. the currently undeveloped space within the burgage plots) and some adjoining farmland to the east. Conditions have been placed to control works which have an impact on the significance of historic assets. 07/01971 relates to the conversion of the former Tannery buildings (Listed Grade II) to residential use. 07/01969 relates to the development of land to the rear of the main complex which will be developed as housing. Consents to 07/01969 (condition 28) and 07/01971 (condition 27) both include the following wording:

> *No development shall take place until a programme of archaeological and historic building work to include a watching brief and a geophysical survey has been secured and implemented in accordance with a written scheme of investigation to be submitted to and approved in writing by the Local Planning Authority in consultation with the County Archaeologist.*

A range of further conditions have been applied to 07/01969 to control details of the conversion and demolition of the Tannery buildings, and secure reuse within the complex of machinery and stonework where it is not to remain *in situ*. These latter conditions particularly refer to the relative significance and conservation options of the range of tanning and lime pits around the complex. Condition 32 reads:

> *Prior to the works hereby approved to buildings 9 and 10 commencing a specification for the treatment of the lime/tanning pits within buildings 9 and 10 shall be submitted to and agreed in writing by the Local Planning Authority. The works hereby approved will be carried out in accordance with the agreed specification.*

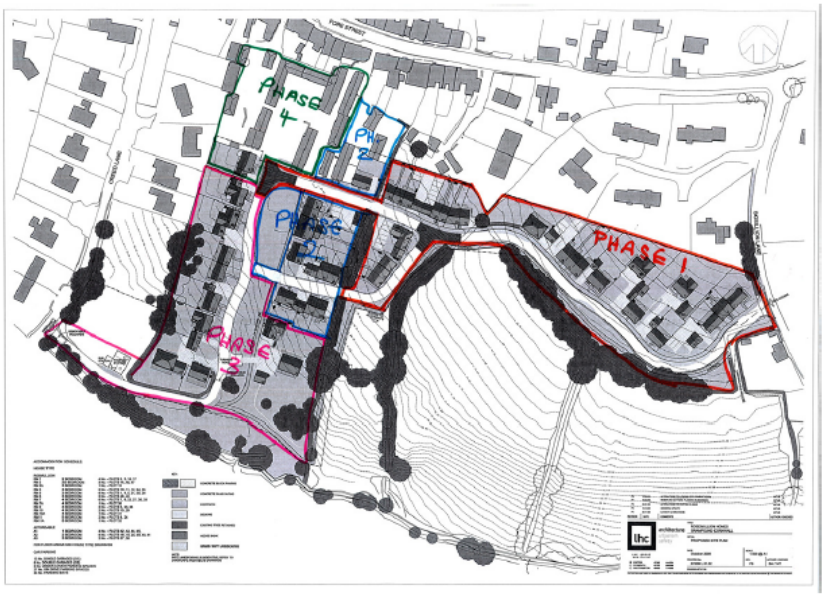
NB Condition 32 indicates that buildings need to be recorded well in advance of conversion works. Conversion treatments for structures should take their significance into

account. Detail of works should be discussed between the developer and the local Conservation Officer.

A brief setting out the requirements for archaeological and historic building assessment was prepared by Dan Ratcliffe, the local Historic Environment Advisor (Archaeology). This Written Scheme of Investigation (WSI) sets out the approach and methods to be employed, as well as the arrangements for project monitoring.

Project extent

The project extent is as shown on a plan supplied by Linden Homes:



Aims and objectives

According to the planning brief the aims and objectives are to:

- Draw together the historical and archaeological information about the site.
- Inform whether further archaeological recording of any extant remains is required and develop a statement of research questions which will guide the investigation and their relation to regional and national research frameworks.
- Inform whether original structure and/or architectural detail should be retained, especially where these matters are subject to the approval of 'details' conditions in consent 07/01971.
- Characterise and describe the significance of the tanning and lime pits around the site and develop a strategy for their conservation to inform the development of the specification required by condition 32 of 07/01971
- Inform whether any further archaeological recording of any potential buried remains is required.
- Inform the need for palaeo-environmental sampling across the site.
- Undertake an archaeological magnetometer survey
- Produce a report containing the geophysical data and the data in interpreted form.
- Inform whether archaeological recording of any potential buried remains is recommended.

- Produce a project design for the rest of a phased programme of works to be implemented under the existing conditions.
- Develop a statement detailing how, where appropriate, the local community and other interested parties will be informed about and engage with the investigation.

Research questions

The following research questions are proposed for the area within the former burgage plots and tannery site:

- What is the nature of pre-tannery (i.e. prehistoric and medieval) occupation?
- Beyond the evidence revealed by the assessment, is there further evidence of former narrower burgage plots combined into the present layout?
- What evidence survives for the former drive from the waterwheel in the Limes yard area to the Upper Yard? What form did this take (pulleys, axles or flat rods?)
- Although the former limes yard lies outside the development 'red line' area, it may provide contextual evidence for water management and other features
- Is there evidence for different character of features/structures between the three historic tanneries that operated here?
- To what extent do modern disturbances (recent pits, drains etc associated with the recent tannery operation) affect the survival of earlier archaeology in this area?

And within the agricultural fields on the eastern side of the development:

- The site is within Anciently Enclosed Land and there is potential for prehistoric and later use. What periods of occupation are represented?
- Potential former field divisions show as geophysical anomalies. These do not appear to directly relate to the present field layout. What period are they?

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.

Stage 2 includes undertaking a controlled topsoil strip of the area to be developed, including the access roads and spaces for the new housing. This will be monitored by an archaeologist, who will record features as they become exposed.

Pre-works meeting

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

- Working methods across the development area and programme.
- Health and Safety issues and requirements.

Archaeological monitoring

Controlled soil stripping under archaeological supervision will be carried out across the development area.

Soil stripping will be carried out using a machine fitted with a wide toothless bucket. The soil will be stripped cleanly to a level at which archaeological features or layers can be expected to be revealed (usually the top of the natural substrate). Machines will not run over the stripped area until recorded by the archaeologist.

Where significant remains are encountered the site archaeologist will be given the opportunity to make an appropriate record before work proceeds; where a temporary stop of work is required the site archaeologist will request this via the site manager.

If archaeological deposits of regional or national importance are uncovered, then a contingency should be allowed within the construction programme to review options to ensure their preservation *in situ.* In the event that remains cannot be preserved *in situ* then full-scale excavation may be required. The significance of the remains should be agreed between the archaeologist and the Historic Environment Planning Advice Officer.

Excavation

Excavations will take place in those parts of the site where the development will lead to the removal of complex or extensive archaeological remains. Following the controlled soil stripping the site archaeologist in consultation with the Historic Environment Planning Advice Officer will decide where full-scale excavation is required.

Where complex/extensive remains are encountered the site archaeologist will be given the opportunity to make an appropriate record before work proceeds; a programme to achieve this will be agreed with the Contractor.

Recording - general

- Photography: scaled monochrome photography will be used as the main record medium, with digital images used for illustrative purposes and to record soil colours. A photographic scale will be used and a north arrow included as appropriate. A photographic register will be kept, giving feature number, location and direction of shot.
- 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 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.
- A location plan will be made linking the site with features that have been mapped by the Ordnance Survey.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- Phased plans and sections at a scale of 1:10 and 1:20 will be made of all excavated features.
- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within cut features (ditches and pits, etc) will be sampled for environmental evidence and dating material. Advice may be needed from Vanessa Straker (Regional Advisor for Archaeological Science).
- The spoil from the controlled stripping will be adequately inspected for finds.

Treatment of finds

The below-ground fieldwork is likely to produce artefactual/environmental material.

- All finds in significant stratified contexts pre-dating 1800 AD (eg, settlement features) should be plotted on a scaled base plan 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 predating 1800 AD will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.
- Significant, sealed archaeological contexts (pre-dating c.1500 AD) will be considered for sampling for environmental material and the strategy will be

discussed with the project manager. All recovered samples will be evaluated at the assessment stage and some may be disposed of. Only flots will be retained for inclusion within the project archive.

- Finds will remain the property of the landowner and will be returned at the end of the project. If significant artefacts are discovered then HEP will negotiate with the landowner regarding potential arrangements for loan or donation to a local museum.

Building recording

When English Heritage surveyed the Manor Tannery in 2000, the works had recently closed and discussions with the Trevithick Trust were in progress regarding possible future presentation of the site. The study by English Heritage, although very thorough regarding the processes and recent history of the site, was not therefore regarded as a complete survey of the structures. Now that re-development of the former tannery site, including conversion of the tannery buildings has planning consent, a more complete record is required. This should be a Level 3 to 4 building survey (see English Heritage 2006) which complements and updates the 2001 record.

NB According to Condition 32, buildings need to be recorded well in advance of conversion works. Conversion treatments for structures should take their significance into account.

Historic building recording should include:

- Monochrome (archive quality) photography of each building, exterior and interior. To include key features
- Colour digital photography of building exteriors and interiors, with a wider coverage of details and features
- Elevation details of buildings, captured as simple measurements and annotations (or, if more complex, by rectified photography) onto the existing developer's measured survey
- Notes and descriptions for each structure
- Assessment of significance of each building/structure

Three 20th century buildings which belonged to the tannery complex are scheduled for demolition in the early stages of the development. These should be prioritised for recording in the manner suggested above. Nevertheless due to their late date, less detailed information is likely to be necessary.

Community engagement

Engagement with the local community will be undertaken in conjunction with the site developer. Community involvement is likely to occur in Stage 2 or later when the state of knowledge of the site is more advanced. Community engagement is likely to include:

- Informing the local Cornwall Council member. The HE Advice team will also be consulted in advance of communications with elected members
- Informing the local Parish Council
- Organisation of an open day at the site, inviting the local school, members of the nearest Old Cornwall Society or village history group and Cornwall Archaeological Society

The latter will depend upon the nature of results that are available to display, and also take into account Health and Safety considerations.

Creation of site archive

The site archive and finds will initially be stored at HE premises and transferred to the Royal Cornwall Museum and the RCM conditions for archives will be followed. The RCM

will be notified of the commencement of the project and included in discussions for storage, sampling and disposal as appropriate.

To include:

- Completion of site catalogues and context records
- Process and file monochrome negatives and prints
- Digital colour photographs (stored according to HER guidelines and copies of images made available to the client)
- Preparation of finished drawings including mapping of observed features
- An English Heritage online archive (OASIS) record will be made

Report

A written report will include:

- Summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Designations
- Site history
- Archaeological results
- Results of building survey
- Significance
- Conclusions
- References
- Project archive index
- Supporting illustrations: location map, historic maps, plans, photographs

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be held in the Cornwall HER. Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with HE standards. The project archive will be deposited initially at Pound and Company, Penryn and in due course (when space permits) at Cornwall Record Office.

Timetable

An archive report will be completed within 3 months of the end of the Stage 2 fieldwork. Certain records, such as those for buildings scheduled for demolition, will be created earlier and photos and drafts of report text will be submitted to the HEAA for approval, so that site work may progress.

Site development work is timetabled to be commenced in the autumn of 2011, starting with the construction of access roads.

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by Dan Ratcliffe, Historic Environment Advisor (Archaeology). Where the HEAA is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected from the local planning authority (LPA).

Monitoring points will be required during the various Stages of work and are likely to include:

- Approval of the WSI
- Site visit(s) during mitigation fieldwork
- Completion of fieldwork
- Submission of archive report
- Submission of final report / deposition of the archive

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 80 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, HE has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

Terms and conditions

Contract

The HE projects team 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 expected project team is expected to include one or more of the following:

Nigel Thomas BA MIfA

Senior Archaeologist responsible for management of projects relating to historic building recording and surveys of historic landscapes. Past work has included recording and structural analysis at Launceston and Restormel Castles, medieval chapels at Rame, Bodmin and Hall (Bodinnick), as well as landscape surveys at Lanhydrock park and Godolphin gardens. Project manager for historic building analyses at Tintagel Old Post Office, Cotehele House, St Michael's Mount summit complex and Trerice for the National Trust. Project team leader for the Lostwithiel Town Characterisation Study. Member of the IfA Buildings Group and Survey and Illustration Group. Expertise includes archaeological use of CAD software and survey methodology.

James Gossip BA MIfA PGDip in Post-Excavation Studies

Archaeologist with HE with 23 years field experience, specialising in the excavation of archaeological sites and subsequent post-excavation analysis. Also undertakes historic buildings survey including the use of Total Station survey equipment. Work in this field has included surveys of various Cornish mine sites and historic building analysis at Cotehele House. Recent projects include site direction of major open-area excavations at Tremough, Truro College and the new Richard Lander School, focussing on Bronze Age and Iron Age ritual and settlement activity. Also involved in community based outreach programmes including Sense of Place, Cornwall Archaeological Society excavation, Lizard Ancient Sites Network, St Piran's Trust and Meneage Archaeological Group. Expertise includes use of Total Station EDM, CAD software and excavation of human remains. Holder of a CSCS card and qualified first aider.

Joanna Sturgess BA

Archaeologist with HE, with a wide range of experience in recording historic buildings, landscapes, excavation and post-excavation. Past historic building works have included Cutmadoc Farmhouse, Lanhydrock; City Wharf, Truro; Harvey's Foundry, Hayle;

Boswednack Serpentine works, Porthmeor farm and various mining sites. Other projects include Gwithian's past excavations, Lemon Quay excavation, Goonhilly Earth Station survey, Lower Boscaswell and Trevessa in West Penwith landscape surveys. Expertise includes archaeological use of CAD software and survey.

Francis Shepherd BA PGCE inc DTTLS

Archaeologist. Since 2004, Francis has worked on various sites throughout Cornwall including; Scarcewater, Camelford School, Forrabury, Tremough, Penwith College, St Marys and St Agnes on Scilly, as well as several pipelines and various smaller watching briefs, evaluations and assessments. He has an HND in Multimedia Design, specialising in animation and digital image manipulation. Previously he has taught various different IT applications, including Microsoft Office and Adobe Photoshop, to students aged from 16 to 70. He now works exclusively for Historic Environment Projects, both in the field and as part of post excavation using AutoCAD, Adobe graphics packages, and ArcGIS. Most recently he has been working on the West Penwith Project, and the forthcoming A30 Publication.

Eric Berry

A freelance Historic Buildings Consultant, with extensive experience of Listing reviews for English Heritage and has surveyed and photographed numerous early buildings in Cornwall. Eric formerly worked as a Conservation Officer for Carrick DC and serves on the committee of the Cornish Buildings Group.

Carl Thorpe BSc

Archaeologist and Finds Manager with HE. His extensive fieldwork experience includes excavations at Tintagel, several churches (St Mawgan in Pydar, Mullion, Bodmin Friary, Tintagel) and miscellaneous watching briefs over 20 years covering a wide range of sites dating from the Neolithic to the Post-medieval. Carl has undertaken numerous post-excavation projects, including Gwithian, Trethurgy, Trevelgue Head, Tintagel, Stannon, Tremough, and Boden. Carl is a national specialist in post-Roman ceramics (contributed analysis and report to University of Glasgow's publication of Excavations at Tintagel). He has a detailed knowledge of Cornish later prehistoric, Romano-British, Medieval and Post-medieval ceramics. He is a specialist in stone artefacts and also has a wide knowledge of other categories of finds (glass, metalwork etc) from most periods. Carl is an experienced archaeological artefact illustrator with numerous published examples including finds from Tintagel and Trethurgy. His research interests include the Romans in Cornwall; the post-Roman period in Britain and its trade connections; Early Medieval inscribed stones; Medieval graffiti and graffiti games. Member of the Society for Medieval Archaeology.

Report distribution

Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

A digital copy of the report, illustrations and any other files will be held in the Cornwall HER and also supplied to the client on CD or other suitable media.

Copyright

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

Use of the material will be granted to the client.

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.

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.

References

English Heritage, 2006. *Understanding Historic Buildings: A guide to good recording practice*. Swindon

English Heritage national research framework:

http://www.helm.org.uk/upload/pdf/Research_Agenda2005.pdf?1279185747

Regional research frameworks:

http://www.algao.org.uk/Association/England/Regions/ResFwks.htm

http://www1.somerset.gov.uk/archives/hes/swarf/index.htm

Nigel Thomas

Senior Archaeologist

24th October 2011

Historic Environment Projects

Cornwall Council