



BRADLEY LANE AND WOLBOROUGH STREET
Newton Abbot
Devon

Excavations and watching briefs

Part One: Text



June 2006

Hereford Archaeology Series 710

EXCAVATION • RESEARCH • GEOPHYSICS • ARCHITECTURAL SURVEY

This report is produced by

ARCHAEOLOGICAL INVESTIGATIONS LTD

Manager: A Boucher BSc MIFA
Assistant manager: N. Oakey BA MA MIFA

UNIT 1, PREMIER BUSINESS PARK,
WESTFIELDS TRADING ESTATE,
FARADAY ROAD, HEREFORD
HR4 9NZ

Tel. (01432) 364901
Fax. (01432) 364900

for: ASM Properties Ltd
Pilgrims
3 Charles Hankin Close
IVYBRIDGE
Devon
PL1 0WF

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Cover picture: Medieval hearth 2036/2035 and possible wall 2034 at Wolborough Street West.

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Bradley Lane and Wolborough Street Newton Abbot Devon

(NGR SX 8560 7120)

Excavations and watching briefs

Text

K Crooks and N J Oakey

Illustration

S Mayes and N J Oakey

Site work

K Crooks, S Mayes, L Craddock-Bennett, S Calow, N Kershaw, L Newton, H Rance, C. Rees,
D Riches and J. Viner

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June 2006

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Bradley Lane and Wolborough Street Newton Abbot Devon (NGR SX 8560 7120)

Excavations and watching briefs

1. Summary.

The project came in response to a commission from ASM Properties Limited to carry out archaeological investigations to satisfy a condition on planning permission for development of several locations to the south of Bradley Lane, Newton Abbot.

This phase of the archaeological works took the form of excavation and watching briefs in areas where damage to archaeological deposits from groundworks could not be mitigated by design. The recording took the form of written, drawn and photographic records.

Two trenches excavated to the south of Bradley Lane (centred at SX 8562 7132) revealed extensive remains of the tanning pits which formed part of Vicary's tannery, the largest in the south-west of England until its closure in c.1930. A phase of wood-lined pits was superseded by brick-lined pits, but no dating material was available. Related cobbled and flagged surfaces were also exposed and recorded, together with details of modification and subsequent disturbance from later buildings.

In advance of road widening excavation of one trench at Wolborough Street East (centred on SX 8566 7115) and two trenches at Wolborough Street West (centred on SX 8558 7111) took place. Possible traces of a 13th-century boundary/drainage ditch along the northern side of Wolborough Street were found in both sites, continuing westwards from 1983 excavations at 40-46 Wolborough Street. A stone-lined drain and surfaces in Wolborough Street East Trench 1 showed activity expanding this far westwards in the 15th-century. Most interesting was the discovery of a 14th-century or later hearth at Wolborough Street West which may indicate that dangerous and anti-social crafts were being practised to the west of the known built-up area of Newton Abbot at this period. Residual evidence suggested that smithing was taking place on this site in the post-medieval period, by which time the northern frontage of Wolborough Street appears to have been built up, but in both trenches extensive truncation by 20th-century developments had damaged earlier deposits.

Archaeological watching briefs at Newfoundland Way car park (centred on SX 8572 7109) and on land between Wolborough Street and the River Lemon (centred on SX 8556 7115) after the demolition of Wolborough Hall failed to reveal any significant archaeological deposits.

The site archive will be deposited with the Royal Albert Memorial Museum, Exeter.

2. Introduction.

The project came in response to a commission from ASM Properties Limited to carry out the archaeological investigations necessary to satisfy a condition on planning permission for development of several locations to the south of Bradley Lane, Newton Abbot.

The development site lay immediately to the west of the shopping and commercial centre of Newton Abbot and is centred at NGR SX 8560 7120. It had been (2004) occupied by a mixture of buildings (some in use and others derelict), open car parks, and tarmac and concrete yards. The underlying drift geology comprises deposits of alluvium and valley gravel following the course of the River Lemon, whilst the underlying solid geology is formed of Upper Devonian slates/mudstones and Permian breccias and conglomerates (the precise relationship between the two is masked by the drift deposits).

On 9th February 2004 Teignbridge District Council granted conditional planning permission for “demolition of existing buildings, construction of retail development, residential unit and scout HQ, construction of new link road, provision of public car park facilities, enhancement of river lemon including new bridge” at Bradley Lane, Newton Abbot (Application Reference 2003/4448/01/03). Amongst the conditions were the following

“8. No development shall take place until the Applicant, or their Agent or successor in title has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation that has been submitted to and agreed in writing by the Local Planning Authority.

REASON:- The site includes areas of archaeological sensitivity which is considered to have potential for archaeological finds in situ and should be recorded and where necessary careful field work implemented.

9. The developer shall afford access at all reasonable times to any archaeologist nominated by the developer and agreed in writing by the Local Planning Authority and shall allow them to observe the excavations and record items of interest and finds.

REASON:- To ensure adequate recording of any archaeological feature that may underlay the site.”

Also, conditional consent was granted for an “Application for Listed Building Consent to demolish and remove recent appendage to earlier building and [sic] make good to historic fabric” for a property on Highweek Street and Back Road, Newton Abbot (Application Reference 2003/4457/01/07). None of the conditions on this consent explicitly mentioned archaeology or building recording.

Advice was sought from Mr W.S. Horner, Archaeological Officer with the Environment Directorate of Devon County Council (and provider of archaeological advice to Teignbridge District Council), regarding his interpretation of the relevant condition of the planning consent and his preferred approach for the satisfaction of that condition. He proposed a three-stage process involving

1. An updated desk-based assessment

2. Evaluation excavations and monitoring of new geotechnical work
3. A programme of mitigation based on the results.

The last two phases would require prior agreement through a detailed Written Scheme of Investigation (WSI).

Stage 1 is represented by AIL 2004a and stage 2 by AIL 2004b. On the basis of the information that these stages provided a proposal for mitigation was put forward and approved (AIL 2005). Within the latter was a section dedicated to below-ground deposits. The programme of assessment and evaluation, coupled with the results of excavations in 1983 (Weddell 1985) and investigations associated with the formulation of an earlier application (Exeter Archaeology 2001a-c and 2002), had demonstrated that significant archaeological deposits potentially survived within the footprint of the development scheme. The document proposed methods of mitigating the impact of the groundworks so that potential archaeological deposits could be preserved *in situ* where possible. However, in some areas this was not achievable and strategies were proposed whereby those elements of the below-ground historic environment directly impacted upon by the proposals could be preserved by record. This would take the form of either archaeological excavation under controlled conditions or archaeological watching briefs during groundworks and in both instances ordered archives would be produced for deposition after the production of an integrated archaeological report (AIL 2005). A programme of standing building recording was also proposed and carried out as a separate exercise (reported as AIL 2006).

The mitigation proposals were approved in writing on 16th March 2005 by Stephen Kemp, then Archaeologist for the County Environment Director of Devon County Council. It was recommended that archaeological excavation under controlled condition take place in three locations.

1. An area measuring *c.* 100m x 25m on the southern side of **Bradley Lane** would be stripped to the level of surviving archaeological deposits under the supervision of a qualified archaeologist. This was designed to provide a record of a representative sample of the post-medieval tanning industry. Assessment of the impact of these anticipated remains upon earlier deposits would determine strategies for further work.
2. Any surviving archaeological deposits in an area of *c.* 65m x 2-15m on the northern frontage of Wolborough Street west of Back Road were likely to be affected by widening of the road to a depth of 600-750mm below existing ground surface. Following stripping of modern overburden under archaeological supervision, excavation of all threatened deposits would take place. The site (known as **Wolborough Street West**) excluded the pavement on the northern side of Wolborough Street where concentrations of services were likely to have severely compromised the survival of archaeological deposits.
3. Street widening would also affect deposits on the northern frontage of Wolborough Street between the junctions with Back Road and Highweek Way (known as **Wolborough Street East**) to a similar depth. Accordingly an area measuring *c.* 35m x 10m within an existing car park was stripped under archaeological supervision and all archaeological deposits likely to be affected by the road widening excavated and recorded. Elsewhere in the car

park archaeological deposits would be protected by design and, as in the case of Wolborough Steet West, the pavement was not excavated.

Watching briefs (ground monitoring) during groundworks were also recommended at a number of locations.

1. At the time of the drafting of the mitigation strategy it was thought that groundworks for the foundations of a **new footbridge across the River Lemon** to the north of the existing car park might have an impact on archaeological deposits and a watching brief was recommended. In the event a construction technique was developed which greatly reduced any potential impact on archaeological deposits and, with the written agreement of Stephen Reed, Archaeologist for the County Environment Director of Devon County Council, no watching brief was necessary (letter dated 14th November 2005). This area is not marked on Figure 2.
2. A **new north/south road** was planned to link Bradley Lane (north) with Wolborough Street (south) via a new bridge across the River Lemon. To the north of the river evaluation had established that any archaeological deposits surviving within the footprint of the new road had already been preserved through the Ordnance Survey First Edition and subsequent maps, so no further work was proposed. At the southern end, Wolborough Hall and Wolborough House had already been recorded (Exeter Archaeology 2001c). Further work involved an archaeological watching brief during removal of the construction levels of these buildings and recording of any archaeological deposits exposed prior to introduction of grading material for the new road. A further archaeological watching brief took place during groundworks for the construction of the new river crossing (Fig. 2. Ground Monitoring Area 1).
3. In the area of the **new store and associated facilities** it was judged that piling and other groundworks, such as groundbeams and services, would impact upon potential surviving archaeological deposits. The excavation on Bradley Lane (see below, 6.1) established the degree of destruction of earlier deposits inflicted by the 19th-century and later tanning establishments which had been present in this area of the Site. This, combined with the introduction of material over much of this area prior to groundworks, rendered the likely impact on any archaeological deposits minimal. After initial brief observation this sector of the watching brief was abandoned (with the written agreement of Stephen Reed of Devon County Council in a letter of 14th November 2005). This area also is not marked on Figure 2.
4. At **Newfoundland Way car park** an extension southwards would involve the removal of a steep grassed bank over an area of c.1500m². An archaeological watching brief was programmed to take place during this operation and during groundworks associated with new drainage systems and lighting columns in the car park (Fig. 2 Ground Monitoring Area 2).

Fieldwork was carried out over the following periods,

Bradley Lane – 23rd May – 8th June 2005

Wolborough Street West – 31st May – 16th June 2005

Wolborough Street East – 13th June – 1st July 2005

Watching briefs – 18-19th August and 7-8th and 10th November 2005.

3. Aims and Objectives.

The project was considered likely to produce results that would be of local archaeological importance.

The main aim of the project was to comply with the national and local guidance on the historic environment and archaeology in the planning process, as expressed in the conditions placed upon planning permission. Through correlation of existing information and targeted fieldwork, the nature of buried deposits had been investigated and the potential impact of the proposals assessed. The main aim of the archaeological project was to preserve by record those elements of the historic environment affected by the proposal.

The main objectives of the work were to:

- a. To produce a record of those below-ground elements of the historic environment affected by the proposals through either archaeological excavation under controlled conditions or by means of archaeological watching briefs carried out during groundworks
- b. Produce an integrated report on the archaeological work carried out during the project
- c. Produce an ordered archive for deposition in a recognised depository.

4. Method.

4.1 General

The trenches were opened by mechanical excavator using a toothless bucket, under the constant supervision of an experienced archaeologist. Mechanical excavation ceased at the surface of surviving archaeological deposits and most excavation thereafter was by hand, though excavation of a test pit into the natural deposits on Wolborough Street East was carried out using a mechanical excavator. All archaeological deposits of medieval date were excavated and recorded. Post-medieval deposits were also excavated and recorded, though in the case of the tannery a representative sample was excavated.

Photographs were taken on site using 35mm colour and black and white film. Trench plans were drawn at a scale of 1:50 and archaeological features planned at a scale of 1:20. A system of context records was kept and numbered independently by area. Recording took place in accordance with Archaeological Investigations Ltd's site manual. Registers were kept for context records, photographs, drawings and samples on the sites. Trench positions were tied in to the Ordnance Survey 1:2500 and to the nearest benchmark.

4.2 Bradley Lane (Fig. 2)

The procedure for this excavation varied from the original proposal (see above, 2) as a result of factors which only became apparent during groundworks. The initial trench was narrower than anticipated (Trench 1) as it had to be a safe distance south of an upstanding stone wall on the southern edge of Bradley Lane. Also continued clearance to the west revealed a substantial concrete slab in an area where disturbance from development was minimal and would not involve removal of the concrete. At the extreme western end of the cleared area, buildings had occupied the southern portion. Both had concrete floors and deep vehicle inspection pits which had destroyed all earlier layers down to the level at which development would penetrate. With the agreement of Devon County Council no further archaeological work took place in these areas. An area between the buildings and Bradley Lane was shown to have suffered little disturbance and tannery remains were cleared and recorded (Trench 2). It is a matter for regret that a film processing problem meant that none of the photographs taken during works on Trench 1 came out.

4.3 Wolborough Street West (Fig. 2)

This was excavated according to the procedure outlined in the project design.

4.4 Wolborough Street East (Fig. 2)

Excavation took place whilst the surrounding car park remained in use and pedestrian access had to be maintained to ticket machine and exit on the southern edge of the car park. This meant that the excavation had to be divided into two trenches (1 and 2). Excavation ceased at the level to be penetrated by disturbance caused by a widening of Wolborough Street and this meant that the full depth of the stratigraphy was not examined.

5. Historical Background.

The historical background to the sites and this area of Newton Abbot has already been outlined elsewhere, as has previous archaeological work (AIL 2004a, 14-23). Since the production of that report further research has taken place to focus upon the areas of the excavations. Attention is drawn to the fact that, since the production of the desk-based study, it has been noted that the earliest cartographic depiction of the sites (Fig. 3) is described by the Devon Record Office to be of "post-1803". This is at variance with a date of "c. 1790" cited earlier (Exeter Archaeology 2001a, Fig. 4; AIL 2004a, 20).

5.1 Bradley Lane

The earliest cartographic evidence shows the land to the south-west of the junction of Highweek Street and Bradley Lane as "Mr Branscombe's Land" and it is also labelled "Tanyard" (Fig. 3). Branscombe sold his business to Moses Vicary who passed it to John Vicary in 1853 (Cody n.d., 30). This seems at variance with a property plan of 1849 which shows land occupied by the tannery in the hands of Mr John Vicary (DRO 1508M/maps and plans/Highweek/plans/1, reproduced as AIL 2006, Fig. 5). However, John Vicary had taken

over a flourishing business on large premises, as shown on the Highweek Tithing Map of 1842 (Exeter Archaeology 2001a, Fig. 6). The Vicary's had been in Newton Bushel since probably 1747 and had tanning interests elsewhere in Devon (Carter 2004, 32). These were all closed in 1879 to concentrate business in Bradley Lane, where the business prospered. Lime, water and bark were available from local sources (Jones 1986, 42), but although hides were provided by local slaughterhouses the scale of the business demanded other sources of supply. By 1893 they were dealing with 1000 heavy South American hides a week, which were tanned to produce high-quality leather mostly used in the shoe industry (Cody, 30).

The "heavy" tanning, principally of cattle hides, took place at the Highweek Street end of Bradley Lane (the site of the excavations) and involved the soaking of the dry salted hides in large tanks and de-hairing by machines, before tanning with bark in other tanks. This could take 18 months to complete. The profusion of tanks is illustrated on the First Edition Ordnance Survey of 1889 (Fig. 4) and the working practises in the early 20th-century have been described by an onlooker. "The large ground floor tanning building seemed to have a concrete base, with pits surrounded by very narrow platforms. The hides were placed in the pits and workmen walked up and down the paths, pushing the leather up and down with a kind of wooden sweep. It was most interesting to watch" (Townsend 1987, 36-7).

The First World War created a great demand for leather and Vicarys had contracts with the War Office and the Admiralty to make leather equipment, such as bandoliers and horse trappings (Cody 31; Jones 42). This resulted in a speeding up of the processes, construction of new buildings and abandonment of some of the complexes of tanks. This is reflected in a schedule and notes of an interview with Charles Vicary made during a rating inspection of the tannery in 1928-30 (DRO 1896B/South/3/17) and the document is reproduced in full as Appendix 2 of this document. An extract from the accompanying plan appears as Figure 5. It should be noted, however, that this document represents the premises on the verge of extinction for the tanyards at the Highweek Street end of Bradley Lane closed in *c.* 1929-30 (Carter, 32) and the 1934 Ordnance Survey shows most of the site cleared of buildings (AIL 2004a, Fig. 8).

Since the Second World War, the area of the Bradley Lane tannery under investigation had seen little new building. A cluster of 19th-century buildings remained at the Highweek Street end and by 1956 these had been added to (AIL 2004a, Fig. 9), but all had been cleared before the time of the desk-based assessment and their character is not known. Also by 1956 an access lane had been created to the west of Bradley Lane, Trench 2 and further buildings were erected on a concrete base to the east of this lane by 1964. Latterly this had functioned as a transport depot (Eggbeers) with deep vehicle inspection pits sunk through the concrete bases and tanks of diesel located within the yard.

5.2 Wolborough Street

J. Crocker had carried out documentary research into the properties at 48-56 Wolborough Street which had stood in the area of the Wolborough Street East trenches (Exeter Archaeology 2001c, 17). This was expanded upon and continued along the northern side of Wolborough Street for 58-76 to cover the area of the Wolborough Street West trench (see below, Appendix 3. References to properties on Bradley Lane, Back Road and the stretch of Highweek Street between Back Road and Bradley Lane are also included).

The character of the northern side of Wolborough Street in the later 19th-century is of a street of shopkeepers, merchants and craftsmen with some properties functioning as wholly domestic accommodation. However, the presence of surgeons in 1878-9 and 1897 adds a higher class note and the presence of the Turner family of seal engravers (1878-9, 1897 and 1919) is worthy of note. The incidence of a wheelwright, dairymen and stone merchants at the more westerly addresses hints at a more rural character as one moves further away from the centre of Newton Abbot.

Kelly's Directory of 1939 (and to some extent, the Ordnance Survey map of 1934. AIL 2004a, Fig. 8) show a change of character with houses and shops swept away to make way for garages on both sides of the junction with Back Road. Between them is a coal merchant. Bulpin's garage and its successor businesses expanded to take over the whole location of the trench at Wolborough Street West, whilst much of the coal merchants premises were lost to modification to the Back Road junction in the 1970s. At about the same time the more easterly garage (the Western Garage in 1939) was demolished and its site has been a car park ever since.

6. Results of Fieldwork

6.1 Bradley Lane

Trench 1 (Fig. 7)

The area cleared measured approximately 21m north-east/south-west by 15m wide and at the time excavation commenced was rough open ground. The overburden was removed using a mechanical excavator revealing that to the north-west the tanning pits (Phase 2) lay approximately 0.2m beneath the existing surface, while to the south and east a layer 0.5m deep or greater of overburden sealed the Phase 1 tannery deposits. Many of the deposits and features, particularly of the earlier tannery, were permeated with tanning liquor.

The phasing is based on stratigraphic relationships as few datable artefacts were recovered and the features recorded had no distinctive details which could be dated, beyond structural use of wood being superseded by use of brick and use of concrete.

Phase 1: earlier tannery

The earliest structures found on the site during the excavation consisted of a number of tanning pits cut through the natural buff clay (1005) and lined with timber (1006). The total area of these pits examined measured 18m in length and 4.8m wide. The complex of pits extended beyond the limits of the excavation to north, south and east. Preservation of the timber varied, possibly preserved by differing degrees of saturation. Individual pits in the eastern portion of the site measured 2.0m in length and 1.4m wide. Although they were revealed and their surfaces cleaned so that the layout could be recorded, they were not excavated and their depth is unknown. It seems likely that some form of solid surface originally ran between these pits, but no evidence for this survived at the time of excavation. The fill (1007) of the pits consisted of coarse black material, highly organic and presumably the remains of tannin. Off-cuts of leather were found, probably dumped at the time the pits went out of use. A Phase 3 concrete foundation (1008) disturbed the pits. To the south-west the tanning pits were slightly offset to the south-east, though of similar construction. Two pits

appeared to be larger and each measured about 4.5m long and 1.4m wide. This may have been a product of the insertion of the phase 3 beam, as further south-west were more pits of 2.0m length. At the western end of this range of tanning pits was a stone sill or kerb (1018). This feature comprised nine substantial stones, aligned south-south-east/north-north-west and with a total length of 3.5m.

A number of cobbled surfaces may have been related to these pits, possibly forming part of an adjoining yard. The cobbles varied in type, which may have been a result of slightly differing functions. For example, to the west of the tanning pits was a cobbled area (1011) measuring 9.6m in length and 1.30m wide. The individual cobbles were carefully sorted, each measuring 90mm by 30mm and being about 30mm deep. All the cobbles were laid on one side and were oriented north-east/south-west and cambered with the intention of directing water into nearby drain 1013.

Brick-lined drain 1013 ran on a north-east/south-west alignment. The fact that cobbles 1011 were positioned in order to assist the flow of water into this drain demonstrates that they were associated in use. The feature was stained black from the flow of tanning liquor. There was no evidence of any capping suggesting that the drain was intended to be open; this supposition is confirmed by the cobbles having been laid to direct water into it along its length.

On the north-western side of 1013 was a line of three flagstones (1014) which formed an edge to the drain and also to another cobbled area 1015. These stones were cut square, though the southernmost had a further square cut out of its north-western corner. It is possible that they originally continued further along the whole north-western edge of drain 1013 but the area to the north was disturbed by later (modern) rubbish pits. There was no evidence to suggest that 1014 had ever continued south-westwards and they may have served a specific function restricted to a particular area.

Although cobbles 1015 sloped downwards towards drain 1013 the cobbles were not laid to aid drainage in the same way as 1011. A different activity, in which drainage was less essential, may have been performed in this area. The cobbles were angular and varied in size, unlike those of 1011, and where they butted to 1016 the edging was of brick. Cobbled surface 1016 was similar to and almost certainly contemporary with 1011. The cobbles were aligned north-west/south-east, possibly to aid drainage, though no drain was found in this area. Where it bordered 1015, to the south-east, the 4.7m long area (1016) was edged with brick, while at its other side it was edged with three courses of cobbles, similar to those forming the surface, but set end on. Cobbles 1016 aligned with the concrete steps up to the later pit complex 1001 and although the surviving width of this area (0.95m) suggested that it was a path, in character the surface seemed related to 1011.

Phase 2: alterations and the construction of later tanning pits

The later tanning pits (1001), first encountered during the evaluation excavation (AIL 2004b), were situated on the north-western part of the site. Unlike the earlier pits, which were cut into the natural clay and lined with timber, the walls of these pits were built of brick. The approximately 1m difference in ground level between the wooden lined pits (6.83mOD) and the brick lined pits (7.81m) suggests that material was imported to raise ground levels in those places where the new phase of brick-lined pits was constructed. The alignment was identical with Phase 1 and each pit measured 1.85m long and 1.62m wide. A pit in this area sampled

during the evaluation excavation (Fig. 2) was found to be greater than 2m deep, at which point excavation was halted as a result of water entering the feature (AIL 2004b).

The wall (1004) on the southern side of this range, and contemporary with it, was constructed of angular stones, aligned north-east/south-west and faced on the south-eastern side. Two concrete steps ran down from the raised area of the tanning pits to surface 1016 (Phase 1). Immediately to the south of wall 1004 was a circular drain (1017), 0.78m in diameter and lined with slate. The rim was of iron. It was not clear whether 1017 was associated with the later pits of 1001 or with the earlier tanning pits to the east as considerable disturbance had taken place in the immediate area.

Phase 3

The Phase 1 tannery appears to have undergone alteration and modification. A large concrete beam (1009) which did not appear to respect positions of the existing pits was inserted into the pit complex; it may have been a base for machinery or a wall foundation and its position suggested that use of this area may have changed by the time of insertion. Running parallel with it and also inserted into the earlier pits was a further concrete beam (1010), whilst further west and also parallel was brick plinth 1012, 1.8m long and 0.46m wide, surviving to two courses high. These three parallel features perpetuated the Phase 1 alignment suggesting that earlier structures remained.

At right-angles to the above a foundation of concrete blocks (1008) ran north-west/south-east with a right angle turning at its north-western end. Built on top of this foundation was a brick wall.

A drain (un-numbered) cut across and into the Phase 1 tanning pit complex on a north/south alignment, suggesting that it was not related to them. Only the cut for this feature survived.

Phase 4: tannery abandonment and disuse. Construction of coach depot

When the tannery went out of use the later phase of tanning pits was capped with non-slip bricks (1003). The soft and organic nature of the fill meant that the capping had slumped considerably and above the bricks was a layer of very hard sandy silt of which samples only were excavated, to demonstrate the presence of the bricks beneath.

A concrete slab sealed the tanning pits, presumably laid for ground consolidation and safety reasons. The slab extended considerably further to the east than the perceived limit of the Phase 1 tannery complex (stone kerb 1018). It was located in two trial holes 5m and 10m to the south of Trench 2, suggesting that tanning pits of a similar form continued eastwards. The subsequent discovery of tannery structures in Trench 2 confirmed that this was the case.

Overlying the concrete was up to 1.5m depth of imported soil comprising a dark brown loosely consolidated loam, clearly very recent in origin. The transport depot was still standing at the time excavation commenced on the northern part of the site. Large areas on the north-western edge of Trench 1 had been disturbed by the excavation of substantial pits for the disposal of waste, mainly scrap metal (not retained), probably from the coach depot.

Trench 2 (Fig. 8)

Trench 2 was excavated in order to investigate features encountered in a shallow trial pit to the south of Bradley Lane and north of an area of later disturbance associated with the coach depot. The trench was aligned approximately east/west, measured 23m in length and was 3m

wide (Fig. 13). At least four phases of activity in this area on stratigraphic grounds with the tanning pits having undergone repair and alteration during their period of use.

Phase 1: flagstone surfaces surrounding the tanning pits

The earliest phase was associated with a number of tanning pits surrounded by flagstones. The pits had been backfilled with building rubble and their construction was not investigated. In Trench 1 no flagstones were associated with Phase 1, but they may have been removed after the pits went out of use. A total of six tanning pits of varying size were identified in Trench 2, the two southernmost pits measuring 3.5m in length and 2m in width. They were surrounded by a surface of flagstones averaging 0.7m long and 0.5m wide (1102), which showed evidence of considerable wear from their period of use. Three further pits, including one much smaller (1.5m by 2m) continued the range to the east, bounded by flagstones of similar type. It is likely that the entire range of pits was contemporary and of similar construction. In one area (1113) the flagstones were disturbed.

Phase 2: repairs to the tanning pits

In the first instance bricks (1104) were used to patch surface 1102 at the southern end of the trench. Two of the pits were probably edged with red brick (1110) 0.12m wide with the bricks chamfered on the face into the pits (Fig. 14). The brick edging was not evident over the whole excavated area as a result of later activity but it survived in the middle of the excavation trench. At the western end the flagstone floor was renewed with a concrete skim (1105), possibly because it had become slippery. As the two types of repair were in different areas, it was not possible to establish which was the earlier, though the use of brick seems more likely. Contemporary with the concrete repair 1105 was the edging of one of the pits with non slip bricks (1106) similar to those later used to cap the Phase 2 tanning pits in Trench 1.

Between two tanning pits was a gully (1108) cut into the flagstones and on the same alignment as metal pipe 1109 to the west. Pipe 1109 was aligned north/south for a length of 0.96m then turned east/west (1.52m) to be on the same alignment as gully 1108. Further east the alignment was continued by a ceramic pipe 1111, which ran beneath concrete 1105, but was probably laid at the same time and surrounded by the concrete. Probably the pipes were intended to provide water for the tanning pits. A further addition or repair was represented by a socket (1107) with a hole for a metal pin, possibly for suspending hides during immersion in the tanning pits. The stone measured 0.18m in length and 0.14m wide.

Phase 3: insertion of concrete beams

A concrete beam (1112) measuring almost 10m in length and 0.50m in width and aligned east/west was inserted into the tanning pits. As with the alterations to the Phase 1 tanning pits in Trench 1, although sharing their alignment the inserted beam did not appear to have been positioned to respect the earlier structures and some change of use in the area is postulated.

Phase 4: demolition and backfill of the tanning pits

After the tannery went out of use a culvert (1101) measuring 22m in length and 1.7m wide was cut into the tannery features. It was capped with concrete, aligned east/west and truncated the brick repair 1104, confirming that the culvert was among the last stages of activity in the area. A square inspection chamber (2029) of breeze block construction was inserted into the concrete capping of the culvert.

After they went out of use the tanning pits were backfilled with a loosely compacted rubble, including brick (1103). The rubble may be derived from the demolition of the tannery buildings. The only pottery recovered from the Bradley Lane sites was recovered from amongst this rubble and included two sherds of modern white ware and three sherds of South Somerset ware. However, as this was a general dumping layer it is possible that the material was brought in from elsewhere.

6.2 Wolborough Street West (Figs. 9-10)

The site measured a total of approximately 65m in length and had a maximum width of 14m at the eastern end, narrowing to about 3m to the west. It was aligned roughly east/west along the northern side of Wolborough Street. Excavation revealed that modern activity (fuel tanks and road construction) had damaged any archaeological deposits that might have been present at the eastern end of the site, while survival elsewhere was intermittent. Generally, surviving stratigraphy was very shallow (0.2m or less) with in many cases only the lower parts of features still extant.

Phase 1: medieval (1066 – 1540)

The natural deposit was red brown silt clay. A number of features cut into this deposit, though, as a result of modern truncation, it was not always possible to establish the horizon from which they were cut. Features assigned to this phase were those from which dating evidence was recovered.

The earliest features on the site were a hearth and a line of stones (2034) possibly resulting from the collapse of a wall (Fig. 10, inset and Fig. 15). The latter lay two or three abreast but were not mortared. Their proximity to hearth 2035 makes it likely that they were related to that feature. The hearth consisted of an area of burning measuring about 1.5m in diameter (2036) and a number of large, flat stones (2035). Although the sand clay around the stones had been oxidised and had hardened the burning was only 20mm deep, implying that the feature was not long-lived or that the temperatures achieved were not particularly high. Charcoal and mortar or white flecks were found in the burnt area and a sample taken, but the flecks were of insufficient size and quantity to allow identification of the process. Evidence of burning was also present in sealing layer 2010 (dark brown sandy clay with charcoal) suggesting that this was deposited while the hearth was still hot. It contained pottery dated to the 13th or 14th, including Totnes-type coarse ware and sherds of Exeter type jugs. The deposit was concentrated in one area, but further patches were apparent nearby.

The earliest feature to survive later disturbance in the central part of the site was a ditch (2031) aligned more or less east/west. It had a flat base, measured about 1m wide and 0.4m deep, with the northern side sloping more steeply than the southern. It was filled by redeposited natural clay silt (2032), containing stones and a moderate quantity of gravel. A single very small (less than 0.5g) sherd of a white ware with a bright green glaze on both internal and external surfaces was found in this feature. It resembled the 'Tudor Green' wares produced probably in the Surrey/Hampshire borders (though with such a small sherd identification was very uncertain). If this is the case the ditch was probably filled in the 15th to 16th centuries.

A similar date seems likely for posthole 2040, which lay to the west beneath later wall 2023. This small, roughly circular cut contained two fills (2041 and 2042) the secondary (2042)

containing the complete, but fragmented, rim of a jug in Totnes type ware. The presence of an internal glaze suggested a date in the 15th century or later.

Phase 2: post-medieval (1540 – 1830)

At the north-western edge of the trench stone and brick lined drains 2004 and 2008 varied between 0.18m and 0.6m in width. The former ran from or under Wolborough Hall (constructed 1835) and whether drain 2008 was earlier than the building or related to it could not be established. However, the construction technique suggested a comparatively early date for the drain. Pottery from drain 2006 was dated to the post-medieval period (Totnes coarsewares and South Somerset wares). The fills of 2004 (2005) and 2006 (2007) were both soft dark brown sand clay while 2008 contained a black organic fill (2009).

To the south-west, in the central part of the trench a layer, of red brown clay, containing a large amount of loosely packed water rolled cobbles, some slate and also mortar and charcoal flecks was thought to be re-deposited natural (2037/2056, not on plan). It was about 0.3m deep and seems to have been intended as a levelling dump. The presence of slate suggests a post-medieval date but no firm dating evidence was obtained from the small part of it excavated and it may be that it should be assigned to an earlier phase. Features cutting this layer (larger inset to Fig. 10) included a linear feature with a u-shaped profile (2062). The presence of many stones and the lack of burnt material and charcoal in fill 2063 suggest that may have been part of a truncated drainage or boundary ditch. Pottery recovered from fill 2063 dated to the 17th or 18th centuries. The fill of 2052 (2053) was very stony and it and gully 2064 (fill 2065), which cut 2052, may have fulfilled similar purposes.

A group of truncated small postholes (2066, 2068, 2070 and 2072) and a number of other features also cut 2037/2056, but their fills suggested that small scale industrial activity had taken place in the area at some time. For example, the fill of 2066 (2067) contained much burnt material, although no other finds were present. A considerable quantity of slag was found in 2061, the fill of 2060. This cut post-dated the fill of gully 2064 and measured 0.46m in length, 0.40m in width and was 0.25m deep. It had steep sides and a concave base and contained a large lump of furnace lining or slag which could be a smithing hearth base and is residual in the fill. A red brown burnt area (not on plan) lay immediately to the west of 2060. Cut 2072 was triangular in shape and contained substantial quantities of slag and cinder, suggesting that it too was associated with small-scale industrial activity on the site. In all cases only the base of truncated features were present and it is assumed that the industrial activity that they were either associated with, or cut through, had been removed by more modern activity.

Some 5.75m to the south-west of 2072 was a more substantial posthole (2050). These, together with 2070 and 2048 possibly formed an alignment, maybe a fence line. The fills of 2050 (2051) and of 2048 (2049) were mid brown silt clay, both containing fragments of clay pipe. The primary fill of 2048 (2057) contained, in addition to flecks of lime mortar, a large number of fish-bones (too fragile to retain) and a piece of modern brick. North-west of 2048 and 2050 were two further postholes (2046 and 2054), which may have shared an alignment with 2060. The fills of these features (2047 and 2055) were both of mid brown clay, though 2055 also contained a number of stones thought to be post-packing. The fill (2059) of small circular posthole 2058 contained no dating evidence (Fig. 16).

Post-dating these features were a number of walls: 2022 was constructed of stone and mortar and was 0.5m wide. A single fragment of modern brick was found in this feature and running

parallel to it was a further, slightly wider stone footing (2023). It sealed the 15th century backfill of posthole 2040 and was truncated by later activity to the north-west (Wolborough Street). An associated stone plinth (2024, not on plan) that may have borne a pillar, but survived as only one course, comprising four fragments of white limestone and one small piece of sandstone. Pottery associated with it dated to the 16th to 18th centuries. Between foundations 2022 and 2023 lay a black deposit (2025). This included about 40% stone rubble and red patches together with fragments of roof slate. Pottery from 2025 dated to the 18th century and later though residual medieval or early post-medieval pottery was also found in the deposit.

Phase 3: modern (1830 – present)

The overburden (2001) was removed using a mechanical excavator. However, pottery recovered from this context included a number of sherds of a chamberpot of South Somerset type ware, together with pottery of 19th or 20th century date. A further large backfilled trench (2030), the fill of which contained tarmac and other rubble, may have been the earlier evaluation trench (Fig. 9. Exeter Archaeology 2002, 3).

Insertion of a number of fuel tanks in the 20th century meant that no earlier deposits survived at the north-eastern end of the trench. Further west, brick walls, service trenches, concrete beam footings and other disturbances (e.g. 2027, 2020 and 2021) were also remnants of the 20th-century garage (Fig. 10). Truncated surfaces of large sub-angular cobbles (2016 and 2026) may have formed the surface of passageways or courtyards of earlier buildings and the presence of modern (19th century and later) pottery in levelling and consolidation layer (2018) beneath cobbles 2016 confirms the recent date for the surfaces.

At the western end of the site a dump of mid dark brown silt clay (2015) contained modern pottery and appeared to have filled a depression in the natural. Cutting it was narrow, shallow, concave ditch 2011 (0.08m wide and 0.02m deep), aligned at right angles to the street. The fill (2012) contained small fragments of mortar and flecks of building debris. It was immediately beneath the overburden associated with the garage and is likely to have been truncated by demolition and levelling work. Ditch 2013 lay on a similar alignment to 2011 and also cut 2015. It had an irregular profile, was 0.32m wide and 0.16m deep and was filled by 2014, a compact mid brown silt clay, similar to 2012.

6.3 Wolborough Street East (Figs. 11-12)

Two trenches were excavated on the site at Wolborough Street East. To avoid confusion caused by the numbering system used on site, context numbers in Trench 1 have been prefixed with the letter A and those in Trench 2 have been prefixed with the letter B.

Trench 1 measured a total of 35m in length and was 5m wide, widening to 8m at the north-eastern end of the trench, into which a test pit was intruded (Fig. 11). It contained a previous evaluation trench (Exeter Archaeology 2001b).

Phase1: features cutting the natural, and medieval deposits

The natural deposit in Trench 1 was red brown clay (A1004/A1034), similar to the natural seen in the Wolborough Street West excavation. The deposit was investigated by a test pit which confirmed its natural origins. Pottery from cleaning the upper surface of this deposit dated to the medieval period and cutting it was ditch A1028 running parallel to Wolborough

Street, with gently sloping sides and a concave base. The highly compacted dark brown silt clay fill (A1029) contained animal bone, including cattle bone from carcass dismemberment, and pottery dated to the 13th to 14th centuries, including Totnes-type ware and Exeter-type jugs. Later disturbance made it difficult to relate this feature to others in the surrounding area, but it is probably part of ditch 502, investigated during the evaluation (Exeter Archaeology 2001b).

Beneath the modern overburden a spread of compact fine grey brown silty clay with pebbles (A1005), appeared to form a surface and continued beyond the trench edge to the north-west. It was 0.2m deep and contained pottery dating to the 14th century. Separated from it by a Phase 2 feature was an unexcavated surface of red brown silt clay containing silt and shale fragments (A1030). On the surface was pottery of medieval date.

Drain A1010 ran east/west across the site for a length of approximately 6m (equating to 524 in the evaluation) and the cut was 0.7m wide. The base of the feature was lined (A1011) with slabs of stone, some fairly substantial (400mm x 300mm), but the stones lining the sides of the feature were smaller (approximately 60mm x 20mm)(Fig. 17). The fill of the ditch, presumably deposited during its use, was a silty dark brown material, containing small sub-angular pebbles. Beneath the fill of the drain a dark deposit (A1046) contained a single sherd of Totnes-type coarseware, probably of medieval date, but further investigation would have gone below the level of disturbance caused by the road construction. Other potential surfaces not investigated for the same reason included A1025 (not on plan), which consisted of a mid brown clay containing much stone and chalk. A further layer (A1035 – not on plan) also beneath the level to be disturbed, consisted of orange clay, thought to be re-deposited natural; it contained rusty brown patches, resembling iron staining. Layer A1032 was also not excavated and no dating evidence was recovered from it. It was red brown silt clay with numerous fragments of slate. It was thought that it might have been a bedding or consolidation layer for a subsequently removed surface. It was not excavated so the depth is not known.

In the western segment of the trench a number of truncated features with no dating evidence cut the natural clay and included posthole A1044, and stake-hole A1042.

Phase 2: post-medieval (1540 – 1830)

No dating evidence was obtained from layer A1015, which was either a very rough surface or possible levelling or consolidation for a surface subsequently removed. It is possible that it was medieval in date, but it was 0.14m higher than A1005. It was cut by the foundation trench A1016 for wall 517 (evaluation), but this also contained no dating evidence. A1016 cut layer A1030, which contained medieval pottery, so a post-medieval date is assigned to this cut, as in the evaluation.

Another wall foundation ran east/west across the trench (A1006/A1007) and comprised a number of large stones set in a red clay with smaller pebbles. Pottery from A1007 dated to the post-medieval period. This appears to be a foundation deposit for evaluation walls 512/513, which could be seen extending into the eastern section of the trench. These had been interpreted as medieval in the evaluation on the basis of form. To the west, beyond later truncation, wall A1023 roughly continued the alignment of A1006/A1007. It comprised two lines of large stones, but also contained no dating evidence. It roughly equates to a wall from the evaluation (505) which was interpreted as medieval, but 505 seems to have been excavated during the evaluation.

Cutting the natural clay at the western end of the trench was a truncated posthole (A1037), oval in shape and containing a mid brown stiff clay with charcoal flecks (not on plan). Pottery recovered from the fill included a sherd of Frechen stoneware, dated to the later 16th to 17th centuries.

The cut for well A1039 was roughly circular and lined with local stone (A1040). The lining had partially collapsed and the well backfilled with a light brown clay silt. Clay pipe from the backfill suggested that it had gone out of use in the post-medieval or modern period and it is tentatively suggested that it was constructed in the post-medieval period.

Phase 3: modern (1830 – present)

Overburden A1001 was removed by machine prior to the commencement of hand excavation and consisted of demolition debris used as make-up for the car park surface. The location of the 2001 evaluation trench was readily visible, not only as an area of differing tarmac, but because it had been partially backfilled with gravel.

A number of modern services and inspection chambers (A1014, A1019) lay beneath the overburden. Also a number of areas of modern disturbance were present including backfill of the evaluation excavation, a block of concrete (A1018), an area of disturbance containing steel girders and concrete (A1024) and a patch of concrete (A1017). Linear feature A1020 (not on plan) contained a loose fill of stone and modern drainpipe.

Wall A1036, at the eastern end of the site, ran at right-angles to Wolborough Street. Although predominantly built of stone, it also contained modern brick. As it was not threatened by the development it was left unexcavated. A foundation cut visible in the northern section of the trench only (A1002), contained wall A1003, but the feature was not apparent on the opposite side of the trench. The masonry footing consisted of a number of large angular stone blocks. No mortar was used, the stones being set in a loam with frequent charcoal flecks.

Trench 2 measured 15m in length and was 3m wide. Unlike Trench 1 it did not run parallel to Wolborough Street, but curved northwards to follow the modern Highweek Way.

Phase 1: medieval (1066 – 1540)

Covering the whole of Trench 2 was B1000, a layer of sandy loam with frequent stones. Pottery recovered from this deposit dated to the medieval period, but no features of medieval date survived in Trench 2. It may have been either a medieval soil horizon or an interface with the natural deposits.

Phase 2: post-medieval (1540 – 1830)

Pit B1005 extended beyond the south-eastern limit of the excavation. This feature was probably circular in form and the fill of mid grey brown sandy silt loam contained pottery dated to the 16th to 18th centuries (B1006). At the north-eastern end of the trench was a surface (B1004) of cobbles of various sizes from which no dating evidence was recovered. A stone built drain (cut B1009, fill/lining B1010) ran east/west across this surface and may be contemporary. The stones used to cap the feature were substantial (e.g. 0.43m by 0.34m), but no artefacts were recovered from this feature. An area of stone rubble (B1011), possibly the truncated remains of a wall, sealed part of this drain before it re-emerged to the west.

Wall B1012 ran approximately north-south across the trench, was visible in both sections and comprised a number of un-faced stones. Parallel wall B1013 was cut by the modern drains and inspection chamber and further west a third parallel wall (B1023) had been disturbed and was visible in section only.

Later truncation rendered survival of surfaces partial. Overlying drain B1009 etc was layer B1026, which may have formed part of a well-constructed stone surface containing occasional limestone cobbles. Three larger stones (B1028) lay nearby.

Phase 3: modern (1830 – present)

Feature B1019 was triangular in form and contained a mixed dark brown fill dated to the 19th or 20th centuries by pottery (B1020). Otherwise only partial remains of drain cuts containing modern salt glazed drain pipes (B1002/3, B1014/15, B1017/18, B1021/22) were left after mechanical removal of the demolition-derived overburden. Inspection chamber B1016 also formed part of the drainage system.

6.4 Watching Briefs

Ground monitoring area 1

This area extended from the Wolborough Street West site to the south bank of the River Lemon. It covered the southern area of a new road linking Wolborough Street and Bradley Lane and the groundworks associated with the establishment of footings for a new road bridge across the river.

After demolition of the building, the shallow ground slabs below Wolborough Hall and Wolborough House were removed, but as there were no cellars excavation stopped at that point as the exposed surface was seen to be sufficiently compacted for road make-up to be laid directly upon it. The area between the site of these buildings and the river was stripped to the same depth (c.0.30m). This removed surfaces and make-up associated with the late 20th-century garage, but prevailing conditions made it very difficult to discriminate soil changes in the exposed surface. A number of modern inspection pits could be seen, backfilled with demolition-derived material, but works penetrating below this depth were largely restricted to driven pile positions for supports to the bridge. Two deeper, linear trenches suggested that the area between the Hall and the river had been cleared down to natural clays prior to deposition of make-up and construction of the concrete floors to the garage and workshops.

Ground monitoring area 2

Two phases of work were involved at the Newfoundland Way car park. The first involved observations of groundworks for new drainage and lighting within the existing car park. These groundworks were restricted in depth and often followed the course of existing service runs. Disturbance was restricted to areas of overburden and consequently nothing of note was recorded.

The second phase involved the extension of the car park by an area of c.1500m² and required excavation into a steep grassed bank on the southern side of the Lemon valley. Newfoundland Way had been created in the late 1950s/early 1960s by punching a hole through the southern frontage of Wolborough Street. The area under observation had formerly formed part of the plots behind properties on this frontage and was shown as orchards or gardens between 1889 and 1956 (AIL 2004a and 2005a). Mechanical excavation

into the bank left a vertical north-facing elevation c.1.50m high, but all the material visible (and removed) comprised topsoil containing occasional large pieces of undressed stone. The interpretation was that this material had been introduced when the car park was laid out and terraces were formed on the southern slope of the valley. The terrace above the Newfoundland Way car park contained Newton Abbot Police Station and, in front of it, a car park.

7. Discussion

7.1 Medieval (1066 – 1540)

Bradley Lane

No artefacts or structures identifiable as medieval (or post-medieval) were recovered from Bradley Lane. Natural deposits were encountered in Trench 1, where it could be seen that Phase 1 tanning pits cut directly into undisturbed clay.

Wolborough Street

Working from east to west, no features of the medieval period were found in Wolborough East Trench 2. Layer B1000 contained only medieval pottery (wheel-thrown Totnes-type coarseware) and is assumed to be associated with occupation of Weddell's Building B on the streetfront (Weddell 1985, 84-8).

In Wolborough Street East Trench 1 ditch 1028 was backfilled in the 14th century. In dimension and alignment it corresponds to east/west drainage ditch or boundary marker 831 seen in Weddell's excavations to the east. The ditch had an eastern terminal within the trench, but no deposits survived at the western end of the trench that could be related to any activity on the plot after backfilling of the ditch. A number of truncated and undated postholes or stakeholes cut natural clay to the north of the backfilled ditch, but they were undateable and no structure could be identified.

Further investigation of medieval deposits in Trench 1 was limited to the depth of disturbance from road construction, but stone-lined drain A1010/A1011 equated to evaluation feature 524 which had contained medieval pottery. It appeared to cut surface A1005 which contained 14th-century pottery. Unfortunately, the medieval date assigned to some of the other structural elements found in the evaluation does not seem to be borne out by excavation of construction levels in this trench (see below, 7.2). However, stone-lined drain A1010 was in use in the 15th century and medieval pottery in nearby surfaces would suggest activity on these plots by this date. No structure equivalent to Building B on the nearby plot (assigned a 15th-century construction date by Weddell) can be identified, but it is apparent that activity had spread westwards to these plots by that date. It is possible that any contemporary buildings were less substantial than the stone footings of Building B and that all traces have been destroyed by subsequent activity.

Evidence of medieval activity at Wolborough Street West had also been compromised by later truncation, but east/west ditch 2031 may have been medieval (based on one small sherd of pottery). If so, it could be a continuation of the boundary/drainage ditches that appear to have been excavated along the northern side of Wolborough Street and like 831 and 1028 (see

above) was backfilled in the later medieval period. Hearth 2036/2035 and possible wall 2034 can be assigned to the medieval period with more confidence as a result of the pottery found in sealing layer 2010, which had been deposited while the hearth was still hot. Unfortunately it was not possible to determine the purpose of the hearth, but the comparatively early date of the sealing deposit 2010 (13th or 14th century) may indicate that it was a process that was deliberately kept separate from a built-up area. At this date the closest known building was Weddell's Building A on the site of 34-8 Wolborough Street, c.150m to the east. A single truncated posthole (2040) represents the only other medieval feature from this trench.

7.2 Post-medieval (1540 – 1830)

Incidence of Totnes coarsewares and South Somerset wares was used to date this period to c 1540-c 1830.

Wolborough Street

Post-medieval activity at Wolborough Street West post-dated the deposition of a layer of clay 2037/2056. This was redeposited natural, but its source and date are unknown. A first phase of activity survived only as the truncated bases of features such as postholes and gullies. Some of these may represent boundaries, but their insubstantial nature and sparsity does not suggest that they supported any substantial structure. However, the presence of burning and slag and cinder in the backfill of these features suggests that some form of metal-working, maybe smithing had taken place in the vicinity. The only dating evidence was pieces of clay pipe stem from the backfills of postholes 2050 and 2048.

These insubstantial remains were replaced by stone and mortar footings 2022 and 2023 aligned at right-angles to Wolborough Street and bounding an area c.5m wide. The former had been modified later, as shown by the inclusion of a brick. The intervening deposit (2025) probably represents a demolition-derived deposit from the 18th-century, possibly from earlier buildings on the site or imported from elsewhere as a levelling deposit.

In Wolborough Street East Trench 2, three parallel stone walls ran at right-angles to Wolborough Street, but their proximity (c. 1m apart) suggests that they are more likely to have supported a floor rather than being structural (B1012, B1013, B1023). The stone-lined drain (B1010) running across cobbles B1004 suggests that the latter formed an exterior surface and it was cut by pit B1005 in the 18th century or later.

In Trench 1 foundation A1006/A1007 is interpreted as the base of wall 512/513, identified as medieval in the evaluation on the basis of form. However, South Somerset ware recovered from A1006 would suggest a later date for its erection. The foundation cut A1016 for evaluation wall 517 appeared to cut A1006/A1007.

Wall A1023 extended further west, parallel to Wolborough Street and on a similar alignment to A1006/A1007, although the relationship between the two had been destroyed by later activity. A1023 represents an enigma as it is on the same alignment as evaluation walls 505 and 509. However, the evaluation report suggests that 505 was medieval and that 509 was a post-medieval addition to it. The report also implies that both 505 and 509 were excavated to some extent (Exeter Archaeology 2001b, 4-6). Comparison of levels suggests that A1023 is a remnant of the foundation deposit of 505 and/or 509, but no further excavation of the deposit took place as it would not be damaged by groundworks. It is assigned a post-medieval date on the grounds of its similar alignment to A1006/A1007. No trace of evaluation wall 504 was

found. Interpolation from the results of Weddell's excavations and the First Edition Ordnance Survey map suggest that the wall line represented by A1006/A1007 and A1023 formed the rear wall of buildings fronting onto Wolborough Street, namely 50-56. Well A1039 was sunk to the north of this alignment, presumably as an exterior feature. Fill A1040 showed that it was backfilled in the post-medieval period or later and it is likely to pre-date the large property shown at 56 on the 1889 Ordnance Survey. This was occupied by surgeons for at least 100 years after 1822.

7.3 Modern (1830 – present)

Bradley Lane Tannery and Successors

By its nature, a tannery is unlikely to produce datable objects. Cartographic evidence indicates that there were tanyards on this site in the early 19th century (Fig. 3), but no evidence was recovered from Trenches 1 and 2 to date the different phases of activity.

The evaluation of 2004 had demonstrated that there were at least two phases of tanning pits on the site (AIL 2004b), but the wood-lined pit found in the evaluation adjacent to Bradley Lane was smaller (*c.* 1.20m x 1.00m) than the Phase 1 pits found in this excavation (2.00m x 1.40m). However, observation of the remains of wood-lined pits found during geo-technical testing to the south of Trench 1 indicated that they were similar in size to those found in the trench (AIL 2004b, Pl. 19). The capping of the wood-lined pit in the evaluation trench was at 6.62m aOD and the maximum surviving height of the Phase 1 pits was 6.83m, so they may be broadly contemporary. However, the Phase 1 pits from the excavation were not overlain by later pits, whereas that in the evaluation had been sealed by dumped material before replacement by brick-lined pits.

The almost complete removal of all above-ground traces of the tannery, coupled with changes in the layout of Bradley Lane and Highweek Street at their junction rendered very difficult any attempt to collate the pits in Trench 1 with those shown on the First Edition OS (Fig. 4) and the buildings on the plan accompanying the rating investigation of 1928-30 (Fig. 5). The closest estimate for 1889 is that they form part of the group shown in an open yard to the south-east of the first gap in the open leat west of the "Fire Engine House". On Figure 5 this would equate with an area marked "Open Yard" and bounded by buildings 4, 4A, 5, 6 and 14. Buildings 4, 4A and 14 all have "old pits" on the ground floor in the 1928-30 schedule, whilst 6 contains "pits", presumably still in use at that date (Appendix 2).

It is not clear from the excavation how long the wood-lined pits remained open, but the absence of demolition-derived backfill material such as occurred in the pits in Trench 2 would suggest that they were sealed prior to demolition of the tannery and presumably whilst it was still operational. Little attempt seems to have been made to remove their noxious contents before sealing.

The tanning process required regular and prolonged immersion in a range of tanks. Firstly, the hair had to be loosened so that it could be scraped off without damaging the grain of the surface of the hide. This involved promotion of the putrefaction process necessary to loosen the roots and involved immersion in a variety of "biologically active liquors", which might include agents such as urine or stale beer, or alkaline liquors prepared from wood ash or lime. This process often involved repeated immersion periods interspersed with scraping episodes. After the liming the pelts were washed and underwent further cleaning and treatment such as overnight immersion in a warm solution of bird or dog excreta to remove excess lime and

make the hide more malleable. These preparatory treatments could take up to six months and were followed by the actual tanning process. This involved immersion in weak tanning liquor with the hides being handed in and out of pits at least once a day for a month in order to achieve a uniform colouring of the grain. The hides were then transferred to further pits known as 'layers' or 'layaways' where they might be kept for a year. The total tanning time could last from nine to eighteen months, but in some instances it could take three years (Thomson 1981-2, 144-6). In 1928 Charles Vicary said that the bark process formerly used at Bradley Lane had taken about 18 months (Appendix 2). However, whatever the duration of the process it involved the use of large quantities of liquid, much of it unpleasant, and careful drainage would have been essential, as demonstrated by carefully-laid cobbled surfaces 1011 and 1016 and drain 1013.

The brick-lined Phase 2 tanning pits in Trench 1 were generally of identical size to those recorded further east in the evaluation (AIL 2004b) and are probably contemporary. In both cases these brick-lined pits were at a higher level than the timber-lined ones of Phase 1, suggesting either terracing or importation of material to raise ground levels prior to Phase 2. They were sealed with non-slip bricks, but the fills were not examined. Excavation of the fills of sealed brick-lined pits in the evaluation had suggested that they contained demolition-derived material and that the sealing operation post-dated demolition of the tannery.

The original construction technique of the pits in Trench 2 was not examined, but six pits of varying dimensions were surrounded by worn flagstones. Various modifications and repairs had taken place to these pits during their working life and evidence was recorded for a water supply to them. In this respect they differed from the pits from Trench 1. They also differ in being identifiable with more confidence on early maps. The Trench 2 pits form part of the complex shown in the open and continuing undercover on the 1889 OS map below the word "lane" (Fig 4). In 1928-30 they are contained within the complex of buildings 28-30 (Fig. 5) and Appendix 2 notes "5 pits" in buildings 29 and 30, the implication being that they were still in use at that time. The layout of building 30 differs from that shown in 1889 and the insertion of concrete foundation 1112 may be related to this alteration which compromised the three western tanning pits exposed. It is assumed that the remainder continued to function until closure of the tannery *c.* 1930 and were backfilled with the products of the demolition of buildings and clearance of the site in the 1930s (Phase 4).

In Trench 1 the concrete footings of Phase 3 also compromised use of the Phase 1 tanning pits and the construction of shuttering for their construction must have been an unpleasant task! Unlike Trench 2 there are no obvious signs of new building or redesign in this area between 1889 (Fig. 5) and 1928-30 (Fig. 6). However, later OS maps show that two rectangular buildings were constructed in this location before 1956 (*i.e.* after clearance of the tannery complex) and survived until at least 1981 (AIL 2004a, Figs. 9-12). Features 1008-1010 and 1012 may be associated with the construction, use, or modification of these buildings and be more appropriate to Phase 4 than 3, but in the absence of definite evidence they have been kept separate.

Sheds associated with a transport depot were built to the south of Trench 2 between 1956 and 1964, but the location of Trench 2 was never built over. It was sealed with concrete, as was Trench 1.

Wolborough Street

Standing building recording of the properties at 34-46 Wolborough Street revealed rebuilding of many of them in the early or mid-19th century, often in stone and in one case (46) with a timber frame (Weddell 1985, 90-2). Whether such events could be recognised and dated from the heavily truncated remains, possibly re-using earlier foundations, seen in archaeological interventions is questionable.

The Wolborough Street West trench was within the footprint of houses or shops shown on the northern frontage of the street in the late 19th and earlier 20th centuries. The absence of any walls or foundations that could be dated to this period reflects partly the fact that the central part of the trench was open in the 19th century (Fig. 6) and partly the truncation resulting from the construction of the concrete floors and other surfaces for Bulpin's Garage and associated workshops in the late 1930s (Appendix 3), but it also suggests that the buildings constructed in the 18th century persisted until the construction of the garage with only minor refurbishments such as the laying of cobbled surfaces 2016 and 2026. Cuts 2011 and 2013 may be boundary ditches, but were heavily truncated. No artefactual evidence was recovered that could tie any of the remains examined to individuals or uses listed in the directories (Appendix 3) and the only traces of what in two cases can be assumed to be substantial houses (judging by the sizes and layouts of the gardens behind shown on the 1889 Ordnance Survey map (Fig 6)) are two walls from the post-medieval period (2022 and 2023).

A similar situation existed for Wolborough Street East. Neither trench was on the line of the (e.g.) 19th-century street frontage and Trench 2 was even further back, falling partly within the yards behind the former 44 and 46 Wolborough Street. It would have been within the area cleared for excavation in 1983, but at that time "it was possible to excavate only the front parts of the tenements" (Weddell 1985, 80-1, Pl. 1). Only drain runs and an undiagnostic feature (B1019) were found in Trench 2, whilst in Trench 1 construction of the garage and later groundworks associated with the clearance of that building and use as a car park had removed any 19th and early 20th-century features, including all trace of the large building at 56 (with a large garden behind) occupied successively by the surgeons and physicians Gaye, Grimby and Scrase. A wall on the Wolborough Street frontage encloses an open yard to the west of 56, but again no trace of this was found. Wall A1036 is probably associated with the Western Garage and Engineering Works which, by 1939 occupied the former sites of 48-56 Wolborough Street.

9. Conclusion

Modern truncation meant that earlier deposits were relatively sparse and poorly preserved, whilst the circumstances and location of the archaeological interventions meant that phased plans of whole buildings such as those recovered in the 1983 excavations on Wolborough Street were unlikely to be reproduced. However, the success of this archaeological project should be judged not only on the results of the excavations, watching briefs and building recording, but on the fact that careful planning and close co-operation meant that much damage to areas with potential archaeological deposits was prevented by mitigation, such as changes in design of the new development.

Where mitigation by design was not achievable the archaeological responses proved to be appropriate. Watching briefs were carried out at Newfoundland Way car park and on land between Wolborough Hall and the River Lemon because in both cases damage to underlying archaeological deposits was considered to be restricted to small areas and did not justify full excavation. In both cases this proved to be the case and significant archaeological deposits were not destroyed in either instance.

Excavation and recording took place at three locations; Bradley Lane, Wolborough Street West and Wolborough Street East. In each case it was recognised that potentially significant archaeological deposits were at risk of destruction and that such deposits needed to be preserved by record through excavation under controlled conditions.

Excavations at Bradley Lane were on the site of Vicary's tannery. This was the largest tannery in the south-west and at one stage the Vicary's were the largest employers in Newton Abbot with over 700 employees. In addition to adding detail to the existing cartographic and documentary record of the 19th and early 20th-century tannery, these excavations have established that the scale of the venture and its structures was such that any archaeological deposits pre-dating the tannery are unlikely to survive in a legible form. Much of the tannery will survive below the development.

Limited areas along the early 21st-century northern frontage of Wolborough Street were liable to disturbance from highway works and were excavated. It was apparent that the areas available for excavation were to the north of the medieval and later frontage of the street so that, where remains survived, they were considered to lie either within the rear ranges of properties fronting the street or in yards behind. Twentieth-century developments in particular had heavily truncated earlier deposits, but important information has been contributed to the developing picture of Newton Abbot's medieval history. The boundary or drainage ditch identified in 1983 running along the northern side of the street on the sites of the later 40-46 Wolborough Street could be seen to extend westwards and was backfilled in the 14th century or later. It was also established that by the 15th century more tangible activity also was expanding westwards. This took the form of a stone-lined drain and a number of enigmatic surfaces, but building remains were sparse. Structures identified as medieval in an earlier evaluation were mainly demonstrated to be later in date, but excavation was not complete and ceased at the level to which disturbance from road construction was to penetrate.

Perhaps most interesting for the history of medieval Newton Abbot was the discovery of a 14th-century or later hearth and possible wall in Wolborough Street. This is 150m further west than other records of activity at this date and may indicate the presence of an industrial or processing site, which was deliberately kept at a distance from the settlement core for safety or social reasons.

Truncation had removed most remains from the post-medieval period, but findings at Wolborough Street West suggest that industry on this site may have continued into this period in the form of smithing. The northern frontage of the street seems to have been largely built up by the post-medieval period.

10. Acknowledgements

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Exeter Archaeology provided access to the site archive for their evaluation on Wolborough Street car park and help was received from the staff of Devon Record Office, Exeter and the Local Studies Section of Newton Abbot Library.

11. Bibliography

10.1 *Maps and original documents consulted (with County Record Office [DRO] references where relevant)*

Post 1803	Map (DRO 1508M/maps and plans/Newton Abbot/maps/1)
1842	Highweek Tithe Map and Apportionment (DRO 1323A/PB3)
c.1845	Wolborough Tithe Map (DRO 1508M/Parish/Wolb3)
1849	Plan of property belonging to the Trustees of the Earl of Devon in the Parish of Highweek (DRO 1508M/maps and plans/Highweek/plans/1)
1889	OS 1:500 (Devonshire Sheets CIX.11.25 Newton Abbot and CIX.15.5 Newton Abbot)
1890	OS 1:2500
1890	OS 1:10560
1906	OS 1:10560
1932	OS 1:10560
1936	OS 1:2500
1939	OS 1:10560
1956	OS 1:2500
1964	OS 1:2500
1964	OS 1:10560
1969	OS 1:10560
1972	OS 1:2500
1981	OS 1: 2500
1987	OS 1:10000
1993	OS 1:10000
1999	OS 1:10000

DRO 1896B/South/3/17 Plan and record of rating inspection of J. Vicary and Sons Ltd's tannery on Bradley Lane, 1928-30.

10.2 *Secondary printed and typescript sources*

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Appendix 1. Site Archive

The site archive will be transferred to the Royal Albert Memorial Museum, Exeter. Currently held at the offices of Archaeological Investigations Ltd at Hereford it comprises

Bradley Lane sites (BLT-05)

- 5 sheets of drawings
- 1 sheet of drawing registers
- 32 sheets of context records
- 2 sheets of context registers
- 3 pages of level book
- 4 sheets of photographic register
- 17 Colour prints
- 17 Black and white prints
- 2 ruined films

Wolborough Street West site (WCN – 05)

- 7 sheets of drawings
- 1 sheet of drawing registers
- 72 sheets of context records
- 3 sheets of context registers
- 4 pages of level book
- 1 levels register sheet
- 4 sheets of photographic register
- 44 Colour prints
- 36 Black and white prints

Wolborough Street East site (NCP-05)

- 5 sheets of drawings
- 1 sheet of drawing registers
- 75 sheets of context records
- 3 sheets of context registers
- 5 pages of level book
- 2 sheets of photographic register
- 23 Colour prints
- 23 Black and white prints

Watching briefs

- 27 colour prints

Whole site

- 1 Correspondence file
- 1 Context database (hard copy)
- 1 Pottery database (hard copy)
- 1 Faunal specialist report (with database)
- A copy of this report
- Copy of Bradley Lane, Newton Abbot, Devon. Archaeological Proposal (March 2005)

Artefacts

139 pottery sherds

25 pieces of building material

93 pieces of animal bone

33 pieces of metal

36 pieces of miscellaneous material (clay pipe, glass etc).

Appendix 2: Documentary evidence 1

DRO 1896B/South/3/17. Plan and record of rating inspection of J. Vicary and Sons Ltd's tannery on Bradley Lane, 1928-30.

Transcript of typescript (handwritten addition "Copy sent Mr Humphries 6/2/30").

“MESSRS. JOHN VICARY & SONS, LTD.

THE TANNERY, NEWTON ABBOT.

Notes made on Inspection February 21st 1928.

Interview with Mr. Charles Vicary

This Tannery was originally designed for tanning leather on the old bark process. In those days the process occupied about 18 months to complete and many of the pits then in use are not now necessary. In the Schedule of buildings the pits that were not occupied at the time of inspection have been noted and are disregarded. To-day the process takes only about two months and Mr. Vicary estimated that more than half of the pits formerly used are not now necessary for the process.

During the War additional Drying Sheds were erected and a further process that of printing and finishing leather was installed. This process has now been abandoned and the machinery therein is not now used, neither are the buildings. These buildings have been noted in the Schedule and have been priced according to their uses.

It would appear from a cutting from "The Western Morning News", which is attached to the papers that at the present time there is a shortage of leather and it was thought at the time of inspection the works were being used to capacity if not more than one would normally expect. Particularly was this so in the Drying Sheds, it being explained that owing to the very wet weather drying had been retarded and perhaps this was the reason why some of the older buildings not normally used in the order of process were being used for drying leather.

SCHEDULE OF BUILDINGS.

TANYARDNo. on
Plan

40.	23' 0"	Old slate roofed Building on Timber Posts. Not used.
av	<u>45' 0"</u> 1,035	
40A.	22' 6"	G.C.I. Segmental roof on Timber and Brick Piers.
	<u>40' 0"</u> 900	Fleshing House.
42A.	63' 0"	G.C.I 3 span segmental roof over Pits on C.I. columns
	<u>51' 0"</u> 3213	Soaking Pits. Brick & masonry built into ground.
	Pits	
	63' 0"	As before.
	<u>51' 0"</u> 3213	3' deep.
43.	113' 0"	Stone & slate one storey old building.
	16' 0"	Hide Barn.
	<u>18' 6"</u> 33,448	
42.	21' 6"	G.C.I. Leanto.
	54' 6"	New roof.
	<u>12' 0"</u> 14,061	Concrete floor on Timber Posts
		Drum Shed.
41.	41' 0"	G.C.I. roof over soaking pits.
	<u>92' 0"</u> 3,772	
	22' 0"	
	<u>40' 0"</u> 880	
	<u>4,652</u>	
	Pits Ditto	4 feet deep.
39.	13' 6"	Stone & Slate. Old Building.
	95' 0z	One storey.
	<u>12' 0"</u> 16,390	Trimming Shop

<u>No. on Plan</u>		
38.	54' 0" <u>90' 0"</u> 4,860	2 Span G.C.I. Segmental roof pt glazed over steeping pits.
	Pits	
	No. 5	3' 0" x 6' 0" x 4' 0" inside
	8' 0" 6' 0" <u>4' 0"</u> 192	
37.	22' 6" 88' 6" <u>29' 0"</u> 57,746	2 Storeys. Stone & Pantile & Slate – weather board above, First Floor level.
		G.F. Drying & Scouring House. F.F. Drying.
41A	14' 6" 50' 0" <u>14' 0"</u> 10,160	Brick & Stone & Slate. One storey old Building. Part Lime Store, part not used.
31 & 31A.	28' 0" <u>57' 0"</u> 1,596	G.C.I. Segmental roof over Pits.
	No.3 Pits	
	ea. 12' 0" 6' 0" <u>5' 0"</u> 360	
32.	15' 6" 37' 6" <u>18' 0"</u> 10,463	2 Storey Stone & Slate. Old Building. Weather board above, First Floor level. G.F. Bisulphide Store F.F. Drying
29 & 30.	85' 0" <u>41' 0"</u> 3,485	G.C.I. Roof over Pits.
		5 Pits.

<u>No. on Plan</u>			
33A.	33' 6" 10' 0" <u>22' 6"</u>	7,537	2 Storey Stone & Slate. G.F. Store F.F. Loft.
33.	33' 6" 56' 0" <u>32' 6"</u>	41,456	2 Storeys. Stone & Slate. Old Building. G.F. Barrel & Tanning F.F. Drying Loft. (barn floors)
34.	63' 6" 17' 0" <u>18' 0"</u>	19,431	2 Storey Stone & Slate Old Building. G.F. Steeping Pits F.F. Drying Loft.
	Pits		
	63' 6" 17' 0" <u>17' 0"</u>	1,079	
35.	96' 0" 33' 0" <u>33' 0"</u>	3,168	G.C.I. roof over Pits "Little Island"
	32' 6" 7' 0" <u>7' 0"</u>	<u>227</u> <u>3,395</u>	
	Pits	Do.	
36.	118' 0" 45' 0" <u>45' 0"</u>	5,310	G.C.I. Roof over Pits "Big Island"
	62' 6" 30' 0" <u>30' 0"</u>	<u>1,875</u> <u>7,185</u>	

**No. on
Plan**

36A.	62' 0" 72' 0" <u>31' 0"</u> 138,384	Built during War G.F. on brick piers above F.F. level Weather & Louvre board and slate roof.
	20' 0") 18' 0") Lean- 3 storeys <u>15' 0"</u> 5,400) to. G.F. Pits F.F.)	
	20' 0" 50' 0" <u>31' 0"</u> 31,000	Drying 2 F)
	50' 0" 31' 0" <u>31' 0"</u> 48,050 222,834	Pt G.F. Way in
	Pits	31' 0" x 72' 0" = 2232.
44A.	50' 0" 24' 6" <u>31' 0"</u> 37,975	As 36A. but G.F. Store.
44B.	67' 0" 27' 0" <u>31' 0"</u> 56,079	As 36A. G.F. Store.
44D.	57' 0" 27' 0" <u>15' 0"</u> 23,085	One storey. Brick & Slate. Printing House (dis-used) Formerly used for a process carried on during War but now abandoned.
	45' 0" 26' 0" <u>15' 0"</u> 17,550	Fitters Shop & Store.
45.	62' 0" 25' 0" <u>15' 0"</u> 23,260	Joiners Shop. As 44D.
45A & B.	64' 0" 17' 5" <u>14' 0"</u> 15,580	Brick & G.C.I. Paint Shop & Open Shed.

<u>No. on Plan</u>			
44.	41' 0" 24' 0" <u>31' 0"</u>	30,504	As 36A. G.F. Store.
44E.	18' 0" 13' 0" <u>12' 0"</u>	2,808	Brick & Slate. One storey. Store.
57.	8' 0" 10' 0" <u>10' 0"</u>	800	Brick & Slate. One storey. Small Store.
24E.			Leanto G.C.I.
24.	47' 0" 11' 6" <u>22' 0"</u>	11,891	Boiler House. One storey. Brick & Slate. (Boiler for process)
24A.	40' 0" 13' 0" <u>22' 0"</u>	11,440	Engine House. (now dis-used) Brick & slate
26 & 26A.	30' 0" 43' 6" <u>24' 0"</u>	31,320	2 Storeys. Brick & stone & slate. Louvre & weather-board walls above First Floor level.
	46' 0" 19' 6" <u>24' 0"</u>	<u>21,528</u> <u>52,848</u>	G.F. Pits F.F. Drying
25.	16' 6" 43' 6" <u>28' 0"</u>	12,919	Stone & Weather-board & slate. Drum House. Concrete floor

**No. on
Plan**

8.	21' 0" 50' 0" <u>22' 6"</u> 23,625	Stone & Slate. 2 Storeys. G.F. Store F.F. Leather (pt of G.F. occupied by Switch board and meter (Electric)).
7.	21' 0" 36' 0" <u>22' 6"</u> 17,010	As 8. G.F. Myrabolan Store. F.F. Loft.
6A.	40' 0" av 25' 0" <u>20' 0"</u> 20,000	Old Boiler House. Stone & slate. Used as Coal Store.
6B	18' 0" 30' 0" <u>33' 0"</u> 12,820	2 Storeys. Stone, Weather & louvre board above First Floor level and Slate roof. G.F. not used. F.F. Rolling Room.
6C.	17' 0" 30' 0" <u>23' 0"</u> 11,730	As 6B. but 3 storeys. G.F. Pits F.F. Rolling 2 F. Drying.
6.	84' 0" 22' 6" <u>33' 0"</u> 62,370	As 6B. G.F. Pits F.F. Rolling 2 F. Rolling & Drying.
	No. 5 Pits	
5.	17' 0" 18' 0" <u>14' 0"</u> 4,284	Leanto

8.

**No. on
Plan**

9.	32' 0" 52' 0" <u>33' 0"</u> 54,912	As 6. G.F. Old Pits F.F.) Drying. 2.F.)
	46' 0" 29' 0" <u>33' 0"</u> 44, 022	
	<u>98, 934</u>	
10.	54' 0" 28' 0" <u>33' 0"</u> 49,896	As 6. G.F. Old Pits F.F. Leather Warehouse. 2.F. Offal Finishing Rooms.
11.	25' 0" 15' 0" <u>20' 0"</u> 7,500	As 10. But 2 storeys.
12.	11' 6" 30' 0" <u>20' 0"</u> 6,900	Stone & Slate. F.F. Pt Leather Warehouse. G.F. Store
12E.	9' 6" 20' 0" <u>20' 0"</u> 3,800	Stone & Slate. 2 Storeys both open to Yard. Practically not made use of.
12C	av32' 0" 28' 0" <u>22' 0"</u> 19,712	2 Storeys. Old Store. Stone & Slate. Not used.
12D.	22' 0" 28' 0" <u>22' 0"</u> 13,552	As last 12C. G.F. Let off.

<u>No. on Plan</u>			
12A.	60' 0" 17' 6" <u>13' 6"</u>	11, 812	F.F. only. Brick & Poilite [?] Part Warehouse. (g. Floor with property in Highweek St. No.13)
12F.			Let off.
12B (Pt)			Part let off, remainder not used.
12B (Pt)	44' 0" 13' 0" <u>14' 0"</u>	8,008	Leanto Shed. Not used. Boarded – G.C.I. & part glazed roof. Concrete floor.
13.	30' 0" 63' 0" <u>31' 0"</u>	58,590	Stone & weather-board above First Floor level Slate roof. (pt G.C.I.) G.F. Pits F.F. Leather Warehouse.
14.	45' 0" 28' 0" <u>31' 0"</u>	39, 060	As 13. G.F. Old Pits F.F. Drying & Store 2.F. Drying.
	30' 0" 57' 0" <u>31' 0"</u>	<u>53,010</u> <u>92,070</u>	
15.			G.C.I. Covering to dis-used Pits.
16.	85' 0" 17' 0" <u>26' 0"</u>	37,570	Stone & Slate. 2 Storeys. G.F.) Leather Drying. F.F.) Little used.

**No. on
Plan**

4A.	50' 0" 18' 6" <u>23' 0"</u>	20,700	2 Storeys. Stone & Slate. G.F. Old Pits F.F. Offal rolling.
4.	41' 0" 35' 0" <u>31' 0"</u>	44,485	Stone weather-board above First Floor level. Slate roof. G.F. Old Pits F.F. Leather Drying. 2 F. Do.
3.	18' 0" 40' 0" <u>25' 0"</u>	18,000	As 4. G.F. Myrabolin (Tannin) Store F.F. Store 2.F. Offal Drying Old Building.
3A.	8' 0" 40' 0" <u>15' 0"</u>	4,800	Leanto. Stone & Slate. Store.
28A.	8' 0" 8' 0" <u>12' 0"</u>	768	Timber & G.C.I. Engine House. Not used.
28.	21' 6" 36' 0" <u>38' 0"</u>	29,412	Old Stone & Slate Building. 4 Storeys & Loft. G.F. Old Sulphide House. F.F. Hair Loft. 2.F. Do. 3.F. Do. 4.F. (Attic) Do. These processes are not now used as hair is ? by new methods. [allowance made for non-use. <i>Hand-written</i>]
1.	52' 6" av.18' 0" <u>25' 0"</u>	23, 625	2 Storeys. Offices. Stone & Slate. G.F. Old Store F.F. Offices.
	26' 0" 24' 6" <u>25' 0"</u>	<u>15,312</u> <u>38,937</u>	

<u>No. on</u>	<u>Plan</u>		
2.	39' 0" <u>26' 0"</u>	1014	G.C.I. Roof. Pits (3/3rds of area)
22.			Leanto. Very old Building.
21.			Very old Building. Not used.
16A.)			
17)			
17A)			Demolished.
18)			
19)			
20)			
24B.	38' 0" 21' 6" <u>26' 0"</u>	21,242	Stone & Slate. 2 Storeys. G.F. Lumber (little used) F.F. Drying.
24C.	25' 0" 45' 0" <u>32' 0"</u>	36,000	As 24 B. 3 Storeys. G.F. Lumber F.F. Split Hide Store 2.F. Drying & Store.
46, 47, 48, 49, 50, 51, 52, 53 & 54.			Part of Bldg 49 let to Electric Co. as Sub-station.

Very old Buildings useable if required but somewhat scattered
for convenient working.

Chimney Octagonal on square truncated pyramid base 15ft square
at bottom, 120ft high.

Appendix 3: Documentary evidence 2

Relevant information about the individual properties is listed below. Where no specific reference is given information has been drawn from the directories listed in the Bibliography. For consistency the same directories were consulted as had been used by J. Crocker in 2001 (Exeter Archaeology 2001c, 12-21). His information for 48-56 Wolborough Street has been incorporated, but not that for Wolborough House and Wolborough Hall. Properties to the west of the Wolborough Street West excavations also have been included.

Wolborough Street, North side:

Number 48

- 1487 Tenement of John Dawe (W. bound in lease of No. 46)
- 1498 Tenement of John Dawe (W. bound in lease of No.46)
- 1772 William Flanand (W. bound in lease of No. 46)
- 1870 Mrs Harriet May (no property number given)
- 1879-9 Mrs Harriet May
- 1881 Harriet May, widow of Commander May
- 1897 Edward Bulley, oil, colour, glass and white lead merchant, steel and general hardware factor
- 1939 Western Garage & Engineering Works Ltd., motor engineers etc.

Number 50

- 1878-9 Miss Ann Vooght, shopkeeper
- 1881 Ann Vooght, shopkeeper & grocer
- 1897 John Reed, shopkeeper
- 1939 Western Garage & Engineering Works Ltd, motor engineers etc.

Number 52

- 1881 Joseph Splatt (occupation illegible)
- 1939 Western Garage & Engineering Works Ltd, motor engineers etc

Number 54

- 1881 Frank Furze, labourer; William Richards, labourer, Mary E, Churchward, dressmaker; Sarah Henley, "no occupation".
- 1939 Western Garage & Engineering Works Ltd, motor engineers etc.

Number 56

- 1822/3 Charles Gaye, surgeon (no property number given)
- 1830 Charles Gaye, surgeon (no property number given)
- 1850 Charles Gaye, surgeon (no property number given)
- 1866 Charles Gaye, surgeon (no property number given)
- 1870 Charles Gaye, surgeon (no property number given)
- 1878-9 Mr Charles Gaye (no occupation given)
- 1881 Uninhabited
- 1897 Richard Henry Grimby MRCS Eng. Surgeon, & certifying factory surgeon for Newton Abbot & medical officer for Ipplepen district, Newton Abbot union
- 1919 James John Sheat Scrase, physician and surgeon
- 1939 Western Garage & Engineering Works Ltd., motor engineers

Number 58

- 1878-9 Mrs Eliza Hearder (no occupation given)
1897 Henry Downs, wood dealer
1919 George Groves, coal dealer
1939 Honeywill Bros., coal dealers.

Number 60

- 1878-9 John Haydon, surgeon
1919 Alma Truscott (Miss), costumier

Number 62

- 1878-9 Robert Tapson, billposter and town crier
1897 George Walling, boot and shoe maker
1919 Thomas Martin, seal engraver (in 1897 Thomas and Arthur Martin, seal engravers are listed in Wolborough Street but with no property number and in 1878-9 Thomas Martin, "tornagraphic engraver", is also listed in Wolborough Street but with no property number).

Number 64

- 1878-9 Edwin Elliott Matthews, greengrocer
1897 Lewis Stidworthy, shopkeeper; Aaron Beavis, horse clipper
1939 A.C. Bulpin & Son, automobile agents & engineers; agents for Austin, Lanchester, Daimler, Sunbeam-Talbot, SS, Standard & Morris Commercial cars.

Number 66

- 1939 A.C. Bulpin & Son, automobile agents & engineers.

Number 68

- 1878-9 Mrs Harriet Ley (no occupation given)
1897 Ellis Chilcott Heath, dyer and cleaner
1919 William Gilley & Son, stone merchants.

Number 68a

- 1919 Palk Brothers, dairymen
1939 Jas. Clench Sutton, dairyman.

Number 70

- 1878-9 Thomas Dawe, baker and confectioner
1897 Frederick Henry Townsend, baker
1919 Walter Prowse, shopkeeper
1939 Jsph. Bate Altham, fried fish dealer.

Number 72

- 1878-9 Ellis Chilcott Heath, dyer (in 1866 Heath is listed in Wolborough Street but with no property number).

Number 74

- 1878-9 William Reed, coal dealer and greengrocer
1897 William Reed, greengrocer.

Number 76

- 1878-9 William Major, wheelwright
1897 Robert Palk, dairyman.

Bradley Lane:

- 1866 John Vicary, tanner and woolstapler
1897 John Vicary & Sons, tanners & fellmongers
1929-30 Tannery at Highweek Street end of Bradley Lane closed (Carter 2004, 32)
1939 G. Glanville, agricultural merchant.

Back Road:

Lemon Mills

- 1939 The Torbay Mill Co. Ltd., agricultural merchants.

Comparatively little pottery was recovered from the sites at Newton Abbot - a total of 139 sherds (2130g). This paucity was probably a result of modern truncation having damaged earlier deposits. In addition, those areas excavated were probably within buildings, rather than yard areas where rubbish pits would be more likely to be situated. Few sealed contexts containing medieval pottery were investigated, with the majority of material of early date coming from layers.

The pottery was distributed among individual sites as follows:

Wolborough Street East - 81 sherds

Wolborough Street West - 53 sherds

Bradley Lane tannery site – five sherds.

The pottery was examined macroscopically and microscopically and sorted according to the work of Langman (Exeter Archaeology 2001). Thanks are due to Exeter Archaeology for making the archive from the evaluation excavation available.

The majority of the pottery from the sites was sourced fairly locally with the predominating pottery during the medieval period Totnes-type coarse-ware of which a total of 59 sherds were recovered (42% of the total pottery from the site). Some eight of these sherds were glazed within and therefore probably of post-medieval date, while a further sherd was also assigned a post-medieval date on the grounds of its form. Many of the body sherds of the fabric were small and non-diagnostic. This material was predominantly wheel-thrown, suggesting a later medieval (14th-century or later) date. As ceramic cooking pots were replaced by those of metal in most households during the 15th century, deposits with sherds of cooking pot were dated to no later than 15th century.

The distribution of pottery may demonstrate the spread of occupation from the centre of Newton Abbot with more of this earlier fabric from Wolborough Street East, and the remainder coming from the Wolborough Street West site (40 sherds as opposed to 19). However, it is possible that this apparent confirmation of the spread of occupation from the centre of the town might be a result of variable preservation, particularly truncation caused by the construction and subsequent demolition of the garage on Wolborough Street West.

Totnes wares were displaced by products of the South Somerset kilns in the 16th century (Langman 2001). Material from these kilns was also present (45 sherds and 33% of the total pottery recovered from the sites). A probable result of the very recent disturbance and damage to the site was that there was comparatively little later post-medieval pottery.

Totnes type coarse ware

The majority of the pottery of this fabric (26 sherds) was from cooking pots though some sherds of jugs and jars, including a strap handle from a jug, were also found. Many of the small and non-diagnostic sherds of this fabric were likely to be from cooking pots, though in the absence of sooting on the outside of the vessel this could not always be confirmed. Thirteen sherds from the total recovered showed external sooting, while a further 13 were unstratified, being recovered from cleaning deposits.

Exeter type ware

Eight sherds of this fabric were recovered during recent excavations in Newton Abbot, five being from deposit 2010 on Wolborough Street West. One of these had stripes of pale slip, typical decoration for this fabric, but the other sherd with this decoration was unstratified. The jug handle with a knife cut groove was also recovered from 2010.

South Somerset type ware

Post-medieval wares of this type were recovered from all three sites, though the majority (39 sherds) was from Wolborough Street West. However 24 sherds of this fabric were from what appeared to be a single vessel, a jar or possible chamberpot recovered from the machined overburden. This had slip decoration on the exterior and a clear glaze within.

Non-regional Wares

One sherd of Staffordshire slipware was found on the Wolborough Street West site and on the same site a single sherd thought possibly to be 'Tudor Green' originating in the Surrey-Hampshire borders was present. However, the very small size of this sherd (less than 1g) made identification uncertain; it is possible that it was in fact Saintonge ware. The bright green glaze was present on both the internal and external surfaces.

Imports

Only two sherds of imported pottery were recovered from the site. A sherd of Frechen stoneware, dated to the late 16th to 17th centuries was found in a context from Wolborough Street East which also contained a sherd of Totnes type ware. The Totnes type ware had a splash of glaze on the inside of the vessel implying that it may have been post-medieval. The possible sherd of Saintonge ware from Wolborough Street West has already been mentioned. It was clearly residual as the context also contained South Somerset coarseware.

Bradley Lane

The only pottery recovered from the Bradley Lane site included modern industrially produced white-wares and South Somerset coarse ware. No medieval pottery was recovered from this site and it must be considered that had medieval archaeology been present in the area it had been damaged so comprehensively that even residual material did not survive. No pottery was recovered from the tannery phases, all being recovered from material imported to backfill the pits after they went out of use.

The ceramic building material

A number of fragments of ceramic building material were recovered from the sites at Wolborough Street East and West. These were mainly modern in origin and included brick and salt glazed ceramic drainpipe. Only one fragment of ceramic roof-tile was recovered; the majority of the roofing material found on the sites being slate. The tile was modern in date.

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THE FAUNAL REMAINS FROM EXCAVATIONS IN WOLBOROUGH STREET, NEWTON ABBOT, DEVON 2005.**Summary**

A small assemblage of animal bone was recovered from the site during the normal course of hand excavation; the assemblage dates from the medieval period through to the early modern period and is quantified in Table 1. Bones from livestock species, particularly cattle, predominate in the assemblage. Less common species include horse, rabbit, chicken, goose and rodent. A comparatively large concentration of bone was recovered from medieval ditch fill (1029) and the general characteristics of this material indicate that mostly primary butchery waste was deposited in this feature. Cattle were culled at the optimum age for prime beef and the medieval cattle bones are from animals of a similar size to those from medieval Exeter (Maltby 1979, 37). Butchery noted on one sheep/goat vertebra from the post-medieval assemblage is similar to that from other urban sites in the region (e.g. Exeter and Bristol). A complete bone toothbrush with incised line decoration on the handle was recovered from modern layer (2001).

Introduction

Ninety-three bone fragments were recovered from Wolborough Street West and Wolborough Street East, trenches 1 and 2, during the normal course of hand-excavation. The assemblage has been subdivided into broad chronological phases, these are as follows: medieval (phase 1), post-medieval (phase 2), and modern (phase 3). The assemblage is summarised in Table 1 and briefly described below with detail assigned to the archive.

Methods

Analysis was carried out following Davis (1992). This method records a selective suite of skeletal elements and reduces the over recording of fragmented remains to give a truer indication of species frequencies. In order to provide a total fragment count un-diagnostic vertebrae, rib and long bone shaft fragments were assigned to general size categories, and small splinters of bone to a general mammal category. Epiphysial fusion was assessed following O'Connor (1989) and tooth eruption/wear following Payne (1973 and 1987); Grant (1982); Halstead (1985) and Hambleton (1999). In general measurements follow Von den Driesch (1976) with the following exceptions: measurements taken on the humerus and metapodials follow Davis (1992); measurements on pig teeth follow Payne and Bull (1988); and width measurements of cattle and caprine teeth were taken across both cusps following Baker (1998). The conversion factors of Matolcsi were used to estimate the withers (or shoulder) height of cattle (see Von den Driesch and Boessneck 1974). Individual measurements are presented in Tables 2 and 3.

Results

Eight different *taxa* have been identified from the assemblage; bones from domestic livestock species predominate, and cattle is the most common *taxa* overall. Less common species

include horse, rabbit, chicken, goose and rodent. The assemblage is briefly described below by broad chronological phase.

Medieval

Animal bone was recovered from six separate medieval contexts. Cattle bones predominate and the majority were recovered from ditch fill (1029). With the exception of one fragment of proximal radius, all of the other cattle bones from this context are waste elements from primary carcass dismemberment (i.e. loose teeth, ankle and foot bones). Tooth wear on one lower third molar indicates that it is from a 30-36 month old animal, the age at which modern cattle are slaughtered for prime beef. Butchery marks were observed on the radius fragment and a proximal metatarsal, the location of these chop marks is consistent with dismemberment. The same metatarsal had also been perforated through the proximal articular surface; the circular hole is 15.7mm in diameter and of uncertain function, although it is possible that it was created in order to gain access to the marrow cavity. A withers height estimate of 1m was calculated for the greatest length measurement of one complete metatarsal from the ditch, this is slightly smaller than the medieval cattle recorded from Exeter by Maltby (1979, 37), who states that the overall size of cattle in the region are generally smaller than in other parts of the country.

Bones from sheep/goat, pig, horse and an unidentified species of rodent were also recovered from the medieval assemblage but are represented by only one or two fragments each.

Post-medieval

Ten separate post-medieval contexts produced animal bone. Cattle, sheep/goat, pig, horse, chicken and goose have all been identified. Of note is a sheep/goat cervical vertebra from posthole fill (2069), which had been chopped through the midline (i.e. dorso-ventral) of the vertebral body (or centrum). This would have been carried out whilst the whole carcass was suspended by its hind limbs, and continued down the entire length of the vertebral column, effectively splitting the carcass into left and right sides. This type of butchery has been recorded on sheep/goat vertebrae from Exeter (Maltby 1979, 39) and Bristol (Higbee 2003).

Rodent gnaw marks were noted on two sheep/goat bones from drain fill (2009). Marks made by rodents are distinct from those caused by carnivorous animals like dogs, their sharp incisor teeth produce parallel striations on bone rather than the irregular pattern caused by dog molars.

Modern and unstratified

A small number of cattle, sheep/goat, pig and rabbit bones were recovered from modern contexts and during initial cleaning. A complete bone toothbrush was recovered from modern deposit (2001). The object is formed from a single shaft fragment of a large mammal and the handle is decorated on both sides with a series of incised lines. The bristle holes on the head of the brush are linked to a series of corresponding grooves on the reverse side; the grooves would have accommodated the wire used to secure the bristles. Messrs Kent of London is cited (see MacGregor 1985, 183) as one of the main manufacturers of bone brushes and their company records give some indication of the scale of production and raw materials required. During the 1870s the company was capable of producing 9,000 brushes a week and this required the long bones from some 600 cattle.

Conclusions

The animal bone assemblage is extremely small but has provided a rare insight into dietary provisioning in a small Devon market town during the medieval, post-medieval and early modern periods.

L. Higbee

June 2006

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Table 1. Number of specimens identified to species (or NISP) by phase. Medieval (phase 1), post-medieval (phase 2), modern (phase 3) and unstratified (US). n.f.i. denotes that a specimen could not be further identified to species.

Taxa	Phase				Total
	1	2	3	US	
cattle	7	8	-	2	17
sheep/goat	2	6	1	2	11
pig	1	1	-	2	4
horse	1	1	-	-	2
rabbit	-	-	1	-	1
?rabbit	-	-	1	-	1
chicken	-	1	-	-	1
?goose	-	1	-	-	1
rodent n.f.i.	1	-	-	-	1
large mammal	4	3	-	1	8
medium mammal	4	7	2	-	13
mammal	2	29	-	2	33
Total	22	57	5	9	93

Table 2. Measurements of cattle (b) post-cranial elements in tenths of mm.

Bone id	site code 1	site code 2	Trench	Context	Deposit type	date	Phase	Taxon	Element	GI	SD	BatF	BFd	A	I
49	431/2005	NCP	1	1029	ditch fill	medieval	1	b	mt	1745	224	400	422	204	192

Table 3. Measurements of cattle (b) and sheep/goat (oc) lower cheek teeth in tenths of mm.

Bone id	site code 1	site code 2	Trench	Context	Deposit type	date	Phase	Taxon	Element	m3 Wa	m3 L
46	431/2005	NCP	1	1029	ditch fill	medieval	1	b	to	106	322
51	431/2005	NCP	2	1000	layer	medieval	1	oc	to	74	

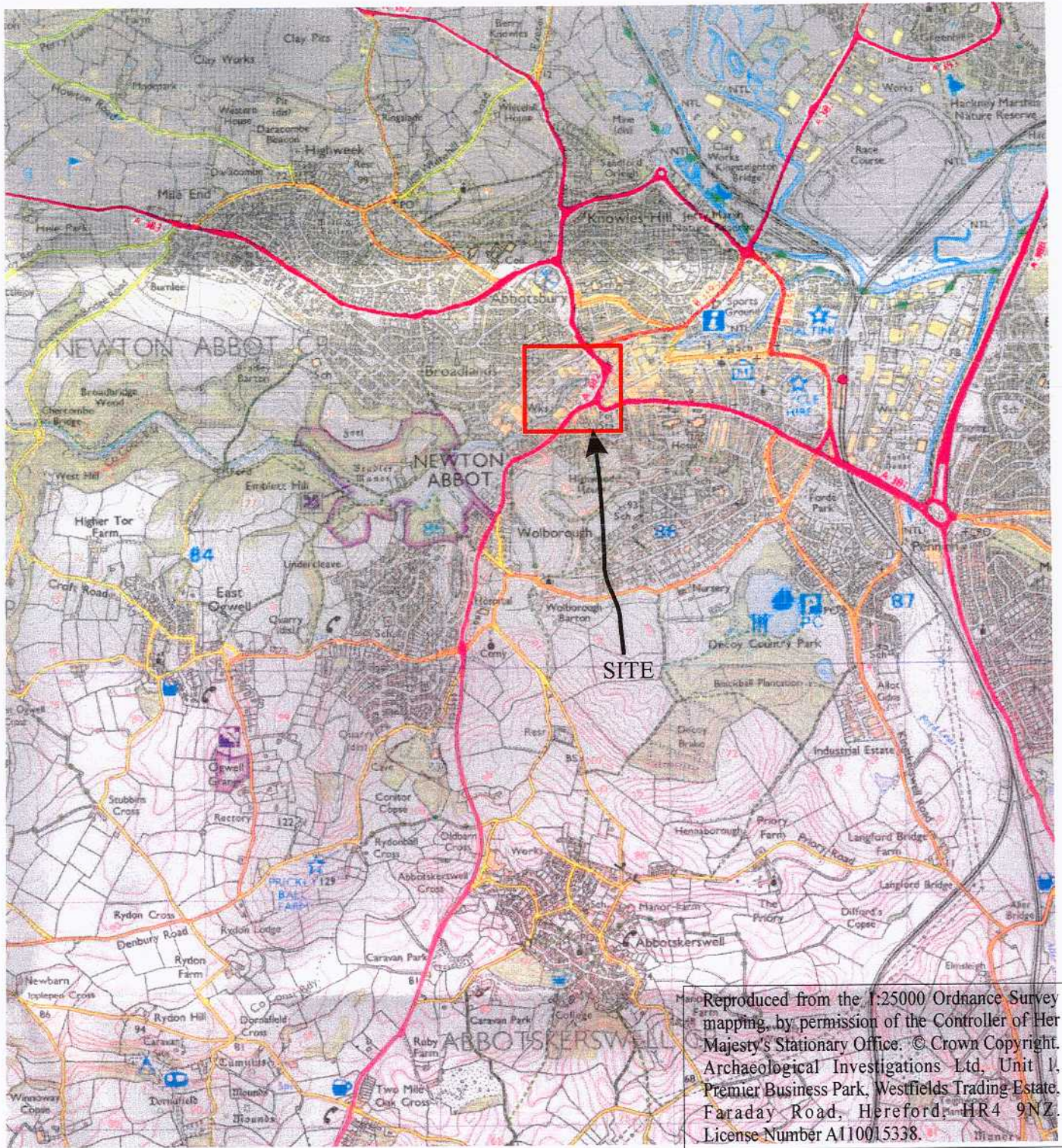
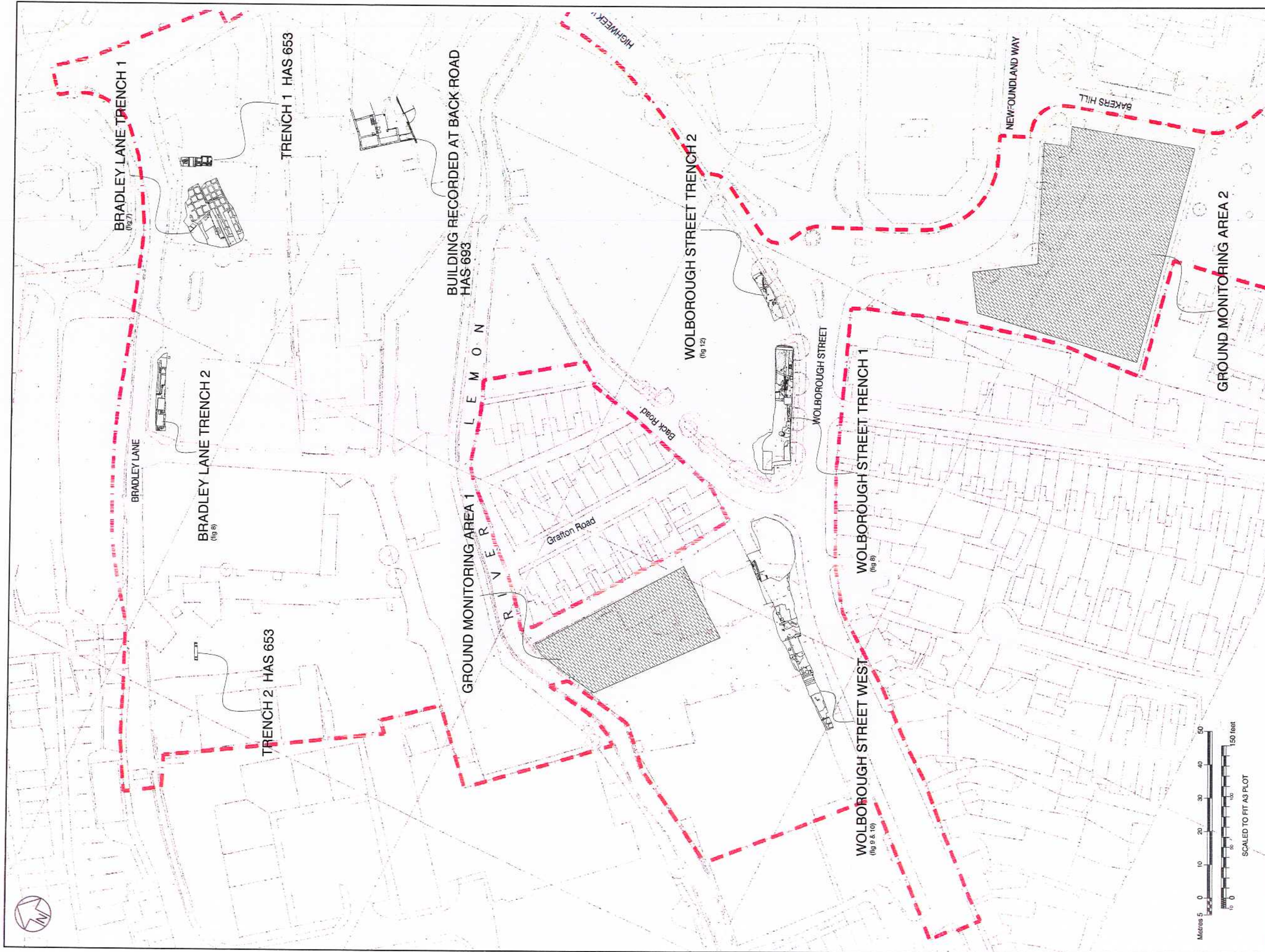
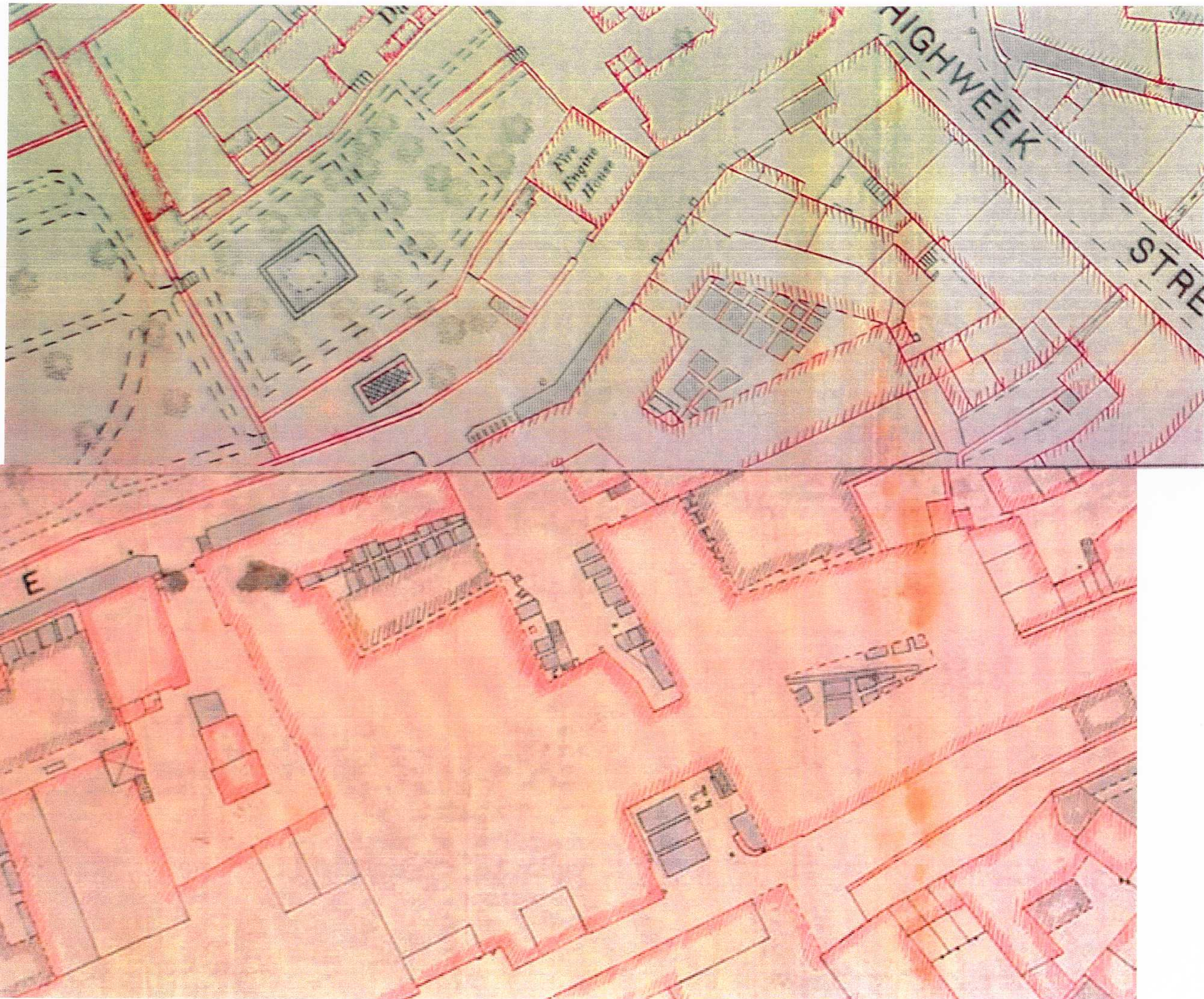


Figure 1. Site location.



EXCAVATION LOCATION PLAN

Figure 4. Extract from First Edition Ordnance Survey 1:500, 1889, showing tannery on Bradley Lane.



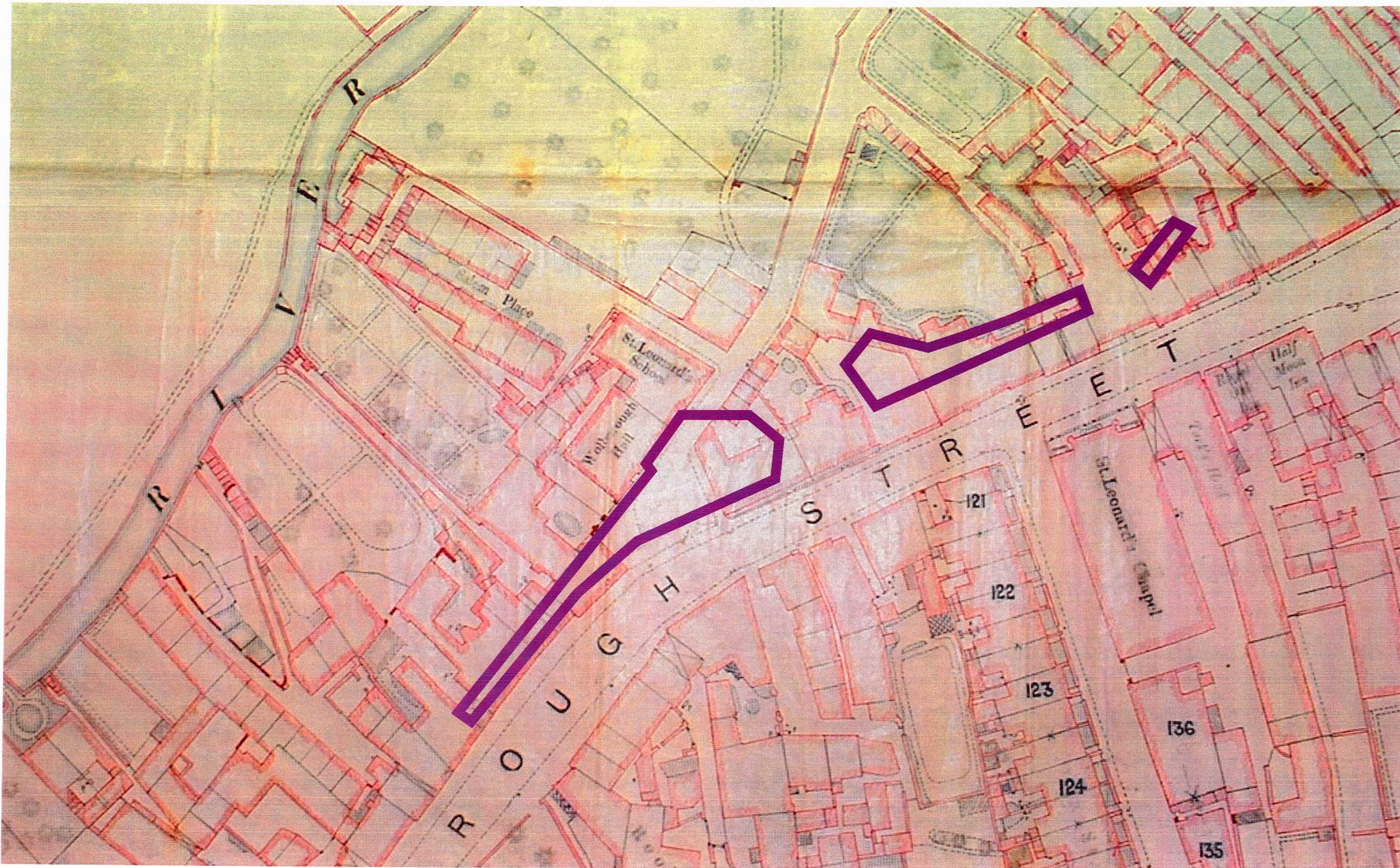
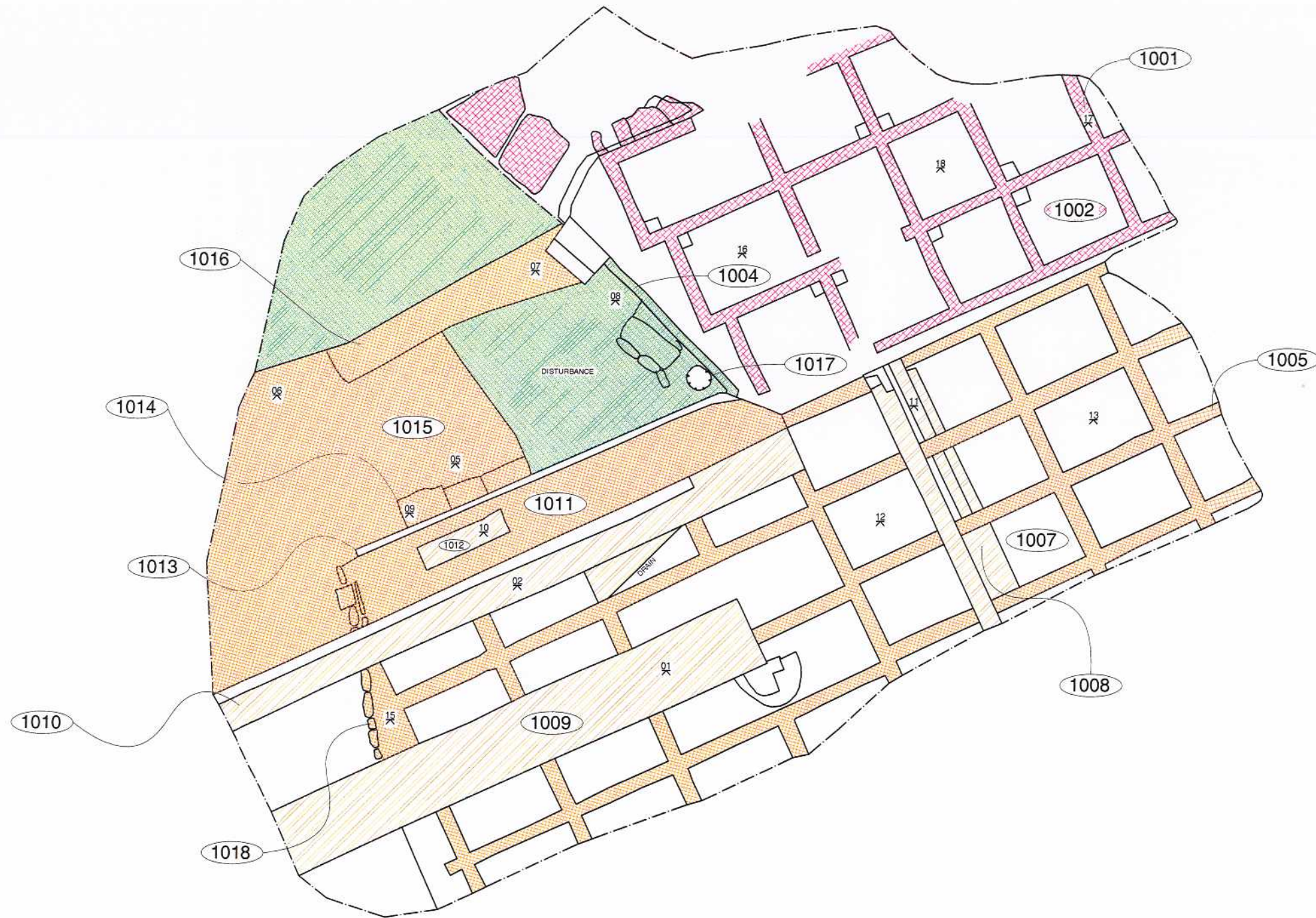


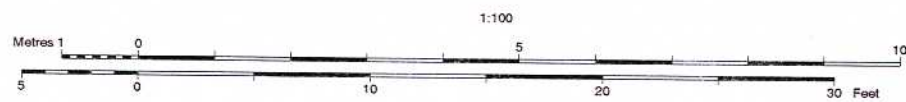
Figure 6. Extract from First Edition Ordnance Survey Map, 1:500, 1889, showing relevant areas of Wolborough Street.



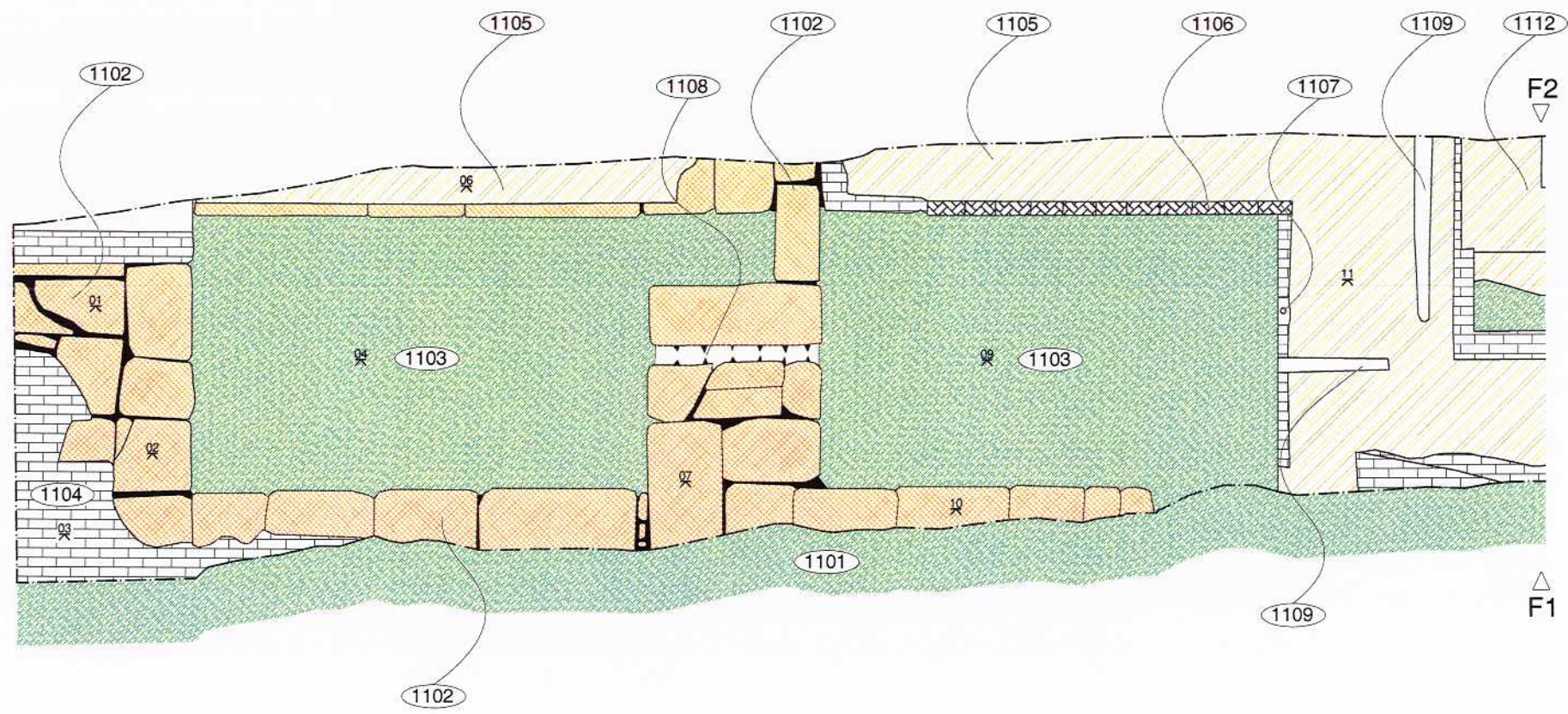
LEVELS	
1	7.32m OD
2	7.08m OD
3	7.10m OD
4	7.05m OD
5	7.07m OD
6	7.22m OD
7	7.22m OD
8	7.12m OD
9	7.08m OD
10	7.15m OD
11	7.23m OD
12	6.83m OD
13	6.78m OD
14	6.84m OD
15	6.95m OD
16	7.81m OD
17	7.66m OD
18	7.41m OD



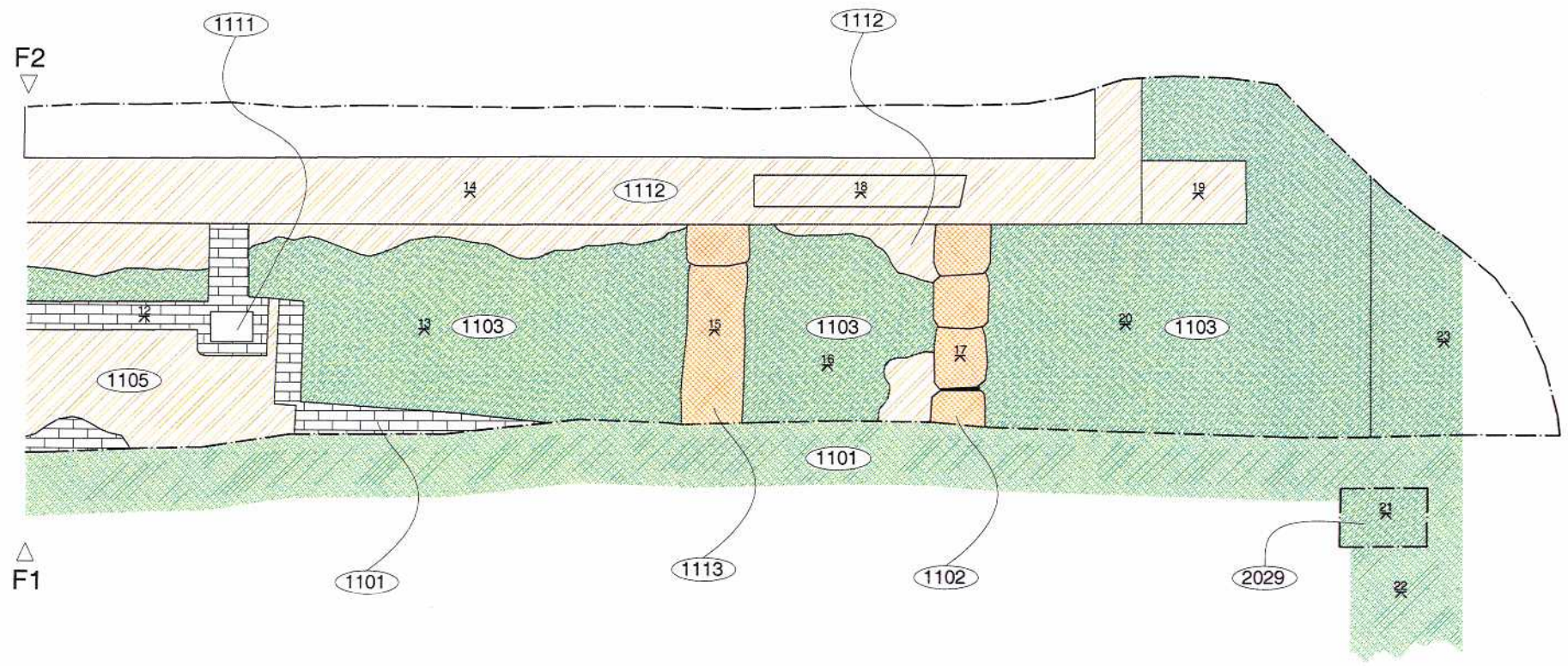
-  PHASE 1
-  PHASE 2
-  PHASE 3
-  PHASE 4



BRADLEY LANE, TRENCH 1. FIGURE 7

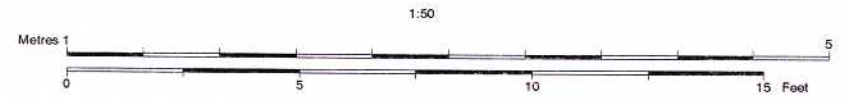


LEVELS	
1	7.67m OD
2	7.67m OD
3	7.63m OD
4	7.63m OD
5	7.69m OD
6	7.75m OD
7	7.67m OD
8	7.59m OD
9	7.66m OD
10	7.69m OD
11	7.76m OD
12	7.85m OD
13	7.71m OD
14	8.06m OD
15	7.76m OD
16	7.76m OD
17	7.88m OD
18	8.13m OD
19	8.01m OD
20	7.87m OD
21	7.30m OD
22	8.63m OD
23	8.07m OD



 Brick

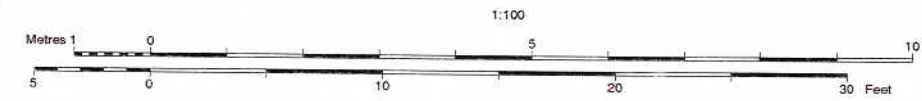
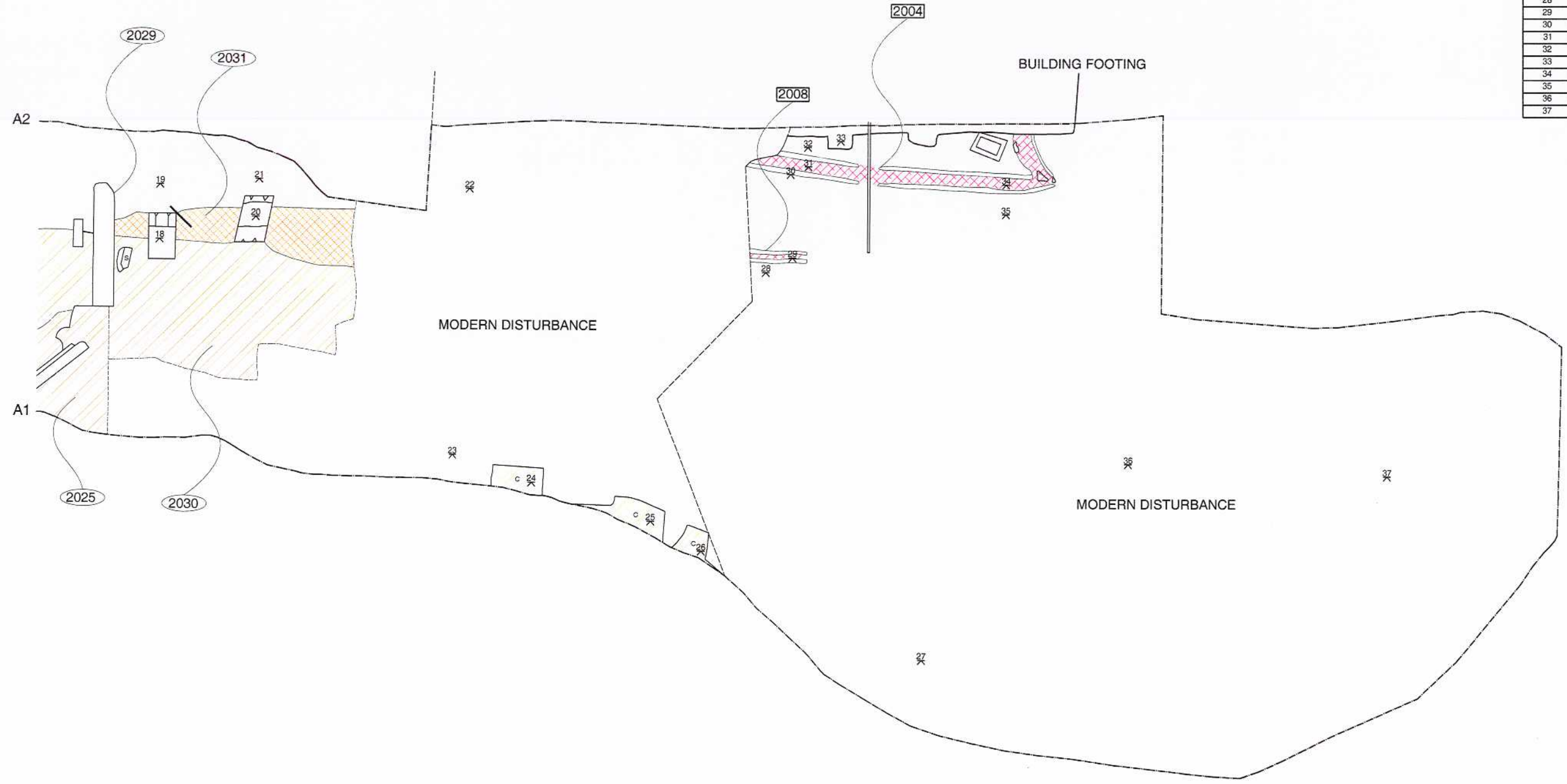
-  PHASE 1
-  PHASE 2
-  PHASE 3
-  PHASE 4



BRADLEY LANE, TRENCH 2. FIGURE 8



LEVELS	
18	7.06m OD
19	7.41m OD
20	7.05m OD
21	7.41m OD
22	7.53m OD
23	7.63m OD
24	7.60m OD
25	7.48m OD
26	7.46m OD
27	7.24m OD
28	7.15m OD
29	7.06m OD
30	7.27m OD
31	7.17m OD
32	7.30m OD
33	7.65m OD
34	7.10m OD
35	7.16m OD
36	7.23m OD
37	7.22m OD



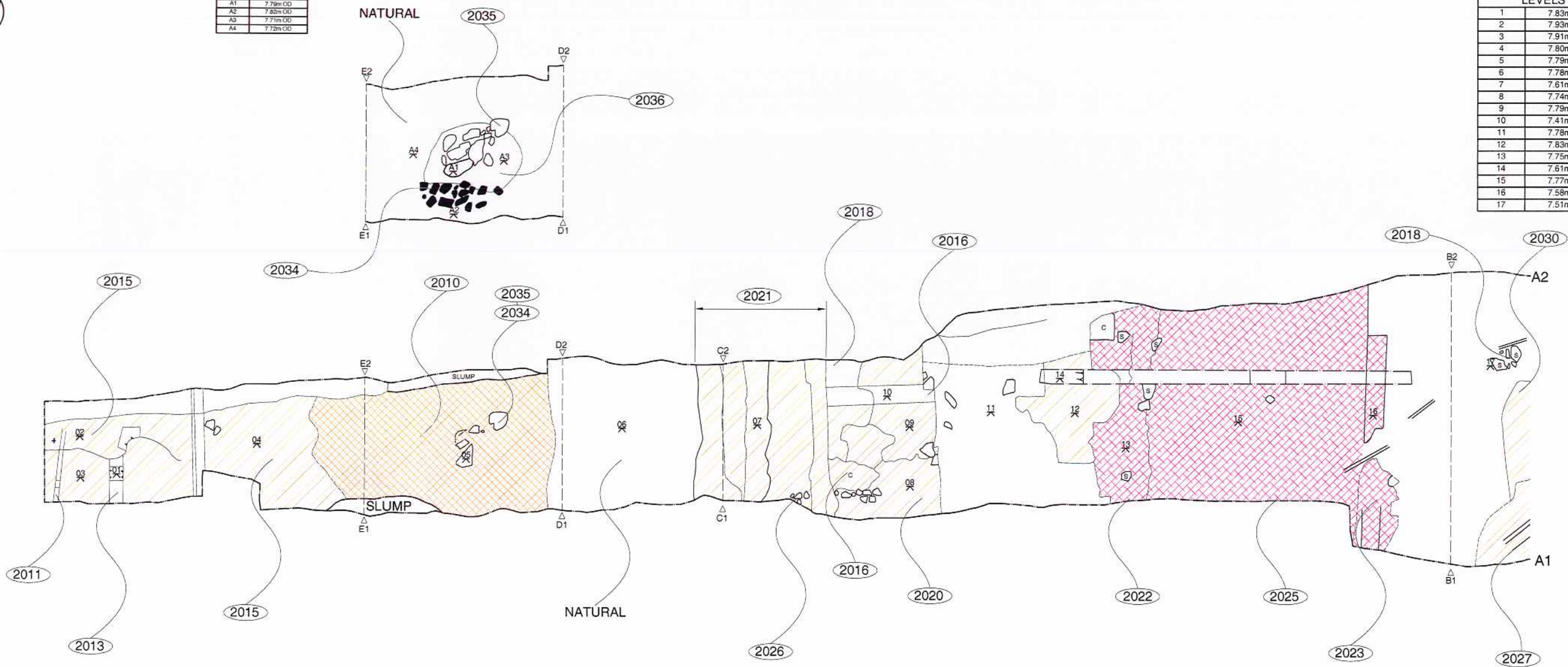
-  PHASE 1
-  PHASE 2
-  PHASE 3

WOLBOROUGH STREET WEST, EASTERN END. FIGURE 9

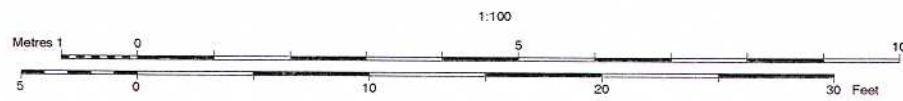
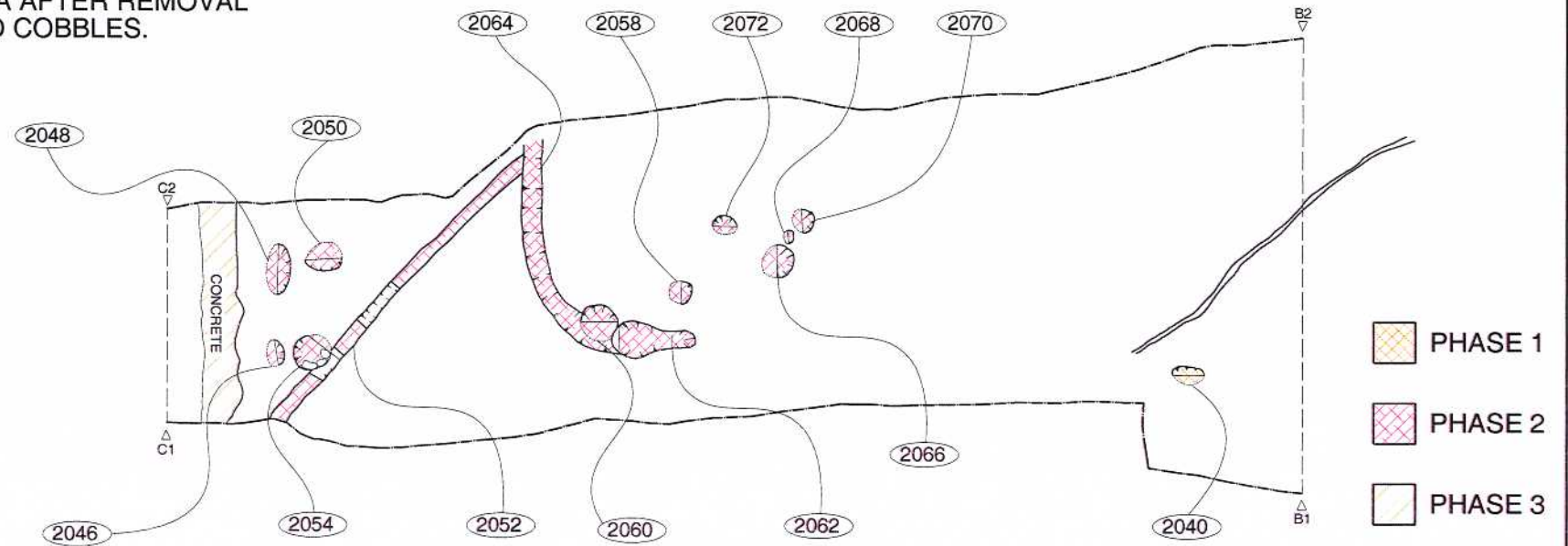


LEVELS	
A1	7.79m OD
A2	7.85m OD
A3	7.71m OD
A4	7.72m OD

LEVELS	
1	7.83m OD
2	7.93m OD
3	7.91m OD
4	7.80m OD
5	7.79m OD
6	7.78m OD
7	7.61m OD
8	7.74m OD
9	7.79m OD
10	7.41m OD
11	7.78m OD
12	7.83m OD
13	7.75m OD
14	7.61m OD
15	7.77m OD
16	7.58m OD
17	7.51m OD



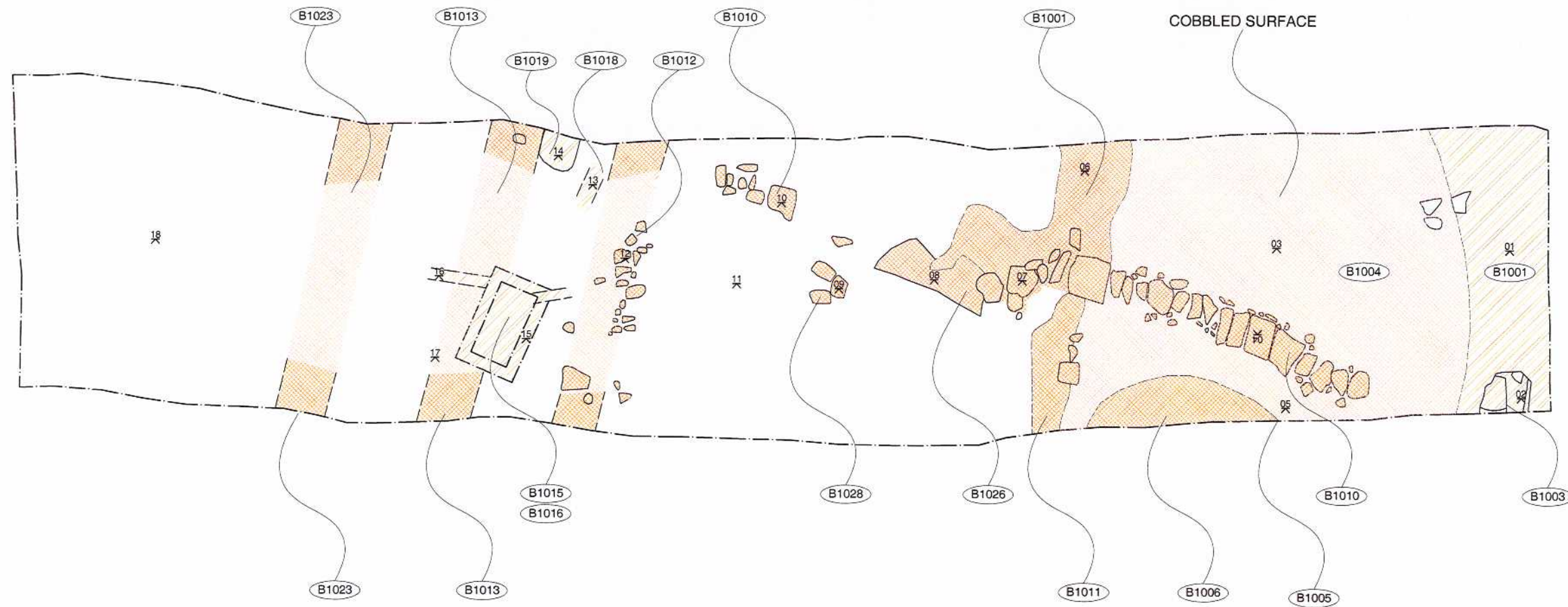
CENTRAL AREA AFTER REMOVAL OF WALLS AND COBBLES.



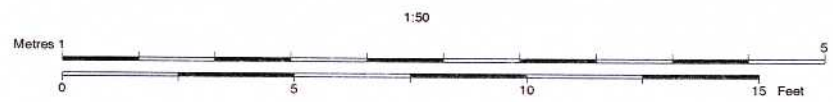
WOLBOROUGH STREET WEST, WESTERN END. FIGURE 10



LEVELS	
1	6.79m OD
2	6.65m OD
3	6.67m OD
4	6.72m OD
5	6.65m OD
6	6.79m OD
7	6.76m OD
8	6.74m OD
9	6.77m OD
10	6.70m OD
11	6.74m OD
12	6.75m OD
13	6.76m OD
14	6.73m OD
15	6.87m OD
16	6.79m OD
17	6.72m OD
18	6.76m OD



 PHASE 2
 PHASE 3



WOLBOROUGH STREET EAST, TRENCH 2. FIGURE 12

Figure 13. General view of Bradley Lane Trench 2, looking west.



Figure 14. Brick-lining to tanning pit. Bradley Lane Trench 2.



Figure 15. Wolborough Street West. Phase 1 hearth comprising stones 2035 (foreground) and burnt area 2036, with collapsed wall (?) 2034 behind the scale.



Figure 16. Wolborough Street West. Half-sectioned Phase 2 posthole 2058.



Figure 17. Wolborough Street East, Trench 1. Phase 1. Stones A1011 lining the base of drain A1010 (behind scale) with surface A1030 in the foreground.