Former livestock haulage garage adjacent to 8A GREENSIDE RIBCHESTER Ribble Valley Borough Lancashire

Report on Archaeological Evaluation

December 2001

Commissioned by:
Mr A. Procter, Ribchester
and
Sunderland Peacock & Associates, Architects, Clitheroe

CONTENTS

LIST OF ILLUSTRATIONS

ACKNOWLEDGEMENTS

Thanks are due to Mr Alan Procter, the client, for funding, assistance on site, and patience, and to his brother's family and neighbours for their interest, to Stuart G. Herd, RIBA, of Sunderland Peacock and Associates, architects, for contractual arrangements, proposals drawings, and helpful discussions about the project.

Peter McCrone (Planning Officer, Archaeology) of Lancashire County Archaeology Service (LCAS), supplied the Project Brief for the works, and monitored the evaluation closely, and commented on the merits of possible engineering scenarios. Chris Shuttleworth, Ribble Valley Borough Council building inspector, also provided useful comment on site about construction scenarios.

Thanks are due to Derick Woodburn, of S. and B. Holden Plant Hire, Ribchester, for his skill, patience, and interest.

Dr David Shotter, of Lancaster University's Department of History, and Ben Edwards of Preston, former Lancashire County Archaeologist, are thanked for undertaking the report and publication drawing (the latter pending and therefore not included in this report) of the Roman altar, at short notice. Patrick Tostevin, curator of Ribchester Roman Museum, is thanked for arranging storage of the altar at short notice, and for useful comments.

Fieldwork, illustration, photography, and report compilation for the project - with the exception of the finds identification - were carried out entirely by the author.

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ARCHIVE REPOSITORIES

The original project archive (comprising: site records, slides, negatives, contact prints, correspondence, and disc and hard copies of this report) will be deposited with:
Lancashire Record Office
Bow Lane
Preston, PR 1 2RE
Tel: 01772 263 039 Fax: 01772 263 050

The finds are technically the property of Mr A Procter, owner of the land at the time of the evaluation project, but it has been agreed in the Project Design that - together with a copy of the archive - these will be deposited with the museum named below. A formal agreement will be made to this effect.
Ribchester Roman Museum
Riverside
Ribchester
near Preston, Lancashire
PR3 3XS
Tel: 01254 878 261

Hard and disc copies of this report, will be sent to the County Archaeological Curator, whose role is currently undertaken by:
Lancashire County Archaeological Service (LCAS)
Environment Directorate
Lancashire County Council
Guild House
P O Box 9
Cross Street
Preston, PR1 8RD
Tel: 01772 261 734 / 261 550 Fax: 01772 264 201

A further copy of the report will be deposited with:
National Monuments Record Centre (English Heritage)
Great Western Village
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SUMMARY

1. *Circumstances of the evaluation:* Nigel R. J. Neil of N. Neil Archaeological Services undertook an archaeological trial-trench evaluation, between 19 and 23 November 2001, concerning proposed re-development of a site presently occupied by a former livestock haulage garage, adjacent to 8A Greenside, Ribchester, Ribble Valley Borough, Lancashire (NGR SD 65155 35315). The work was commissioned by Mr Alan Procter (the Client), the present owner, through Sunderland Peacock and Associates, architects, of Clitheroe.

2. Acting on advice from the Lancashire County Archaeological Service (LCAS), part of Lancashire County Council's Environment Directorate, Ribble Valley Borough Council (RVBC) imposed a condition to planning approval to Application No. 3/01/0541/P, requiring the pre-determination archaeological evaluation of the site. LCAS supplied the Client with a Project Brief and the archaeological contractor prepared a Project Design. The requirement for an archaeological evaluation followed standard planning procedures, implemented in accordance with Lancashire County Council's heritage strategy.

3. A single evaluation trench was excavated inside the former haulage garage building, built in 1939, with a wider extension to the west added in 1944. The proposed development comprises the demolition of the garage building, and the erection of a new two-storey dwelling on a slightly smaller footprint.

4. ***Scheduled Ancient Monument:*** the site lies within the *vicus* or extra-mural settlement adjacent to the Roman fort of *Bremetenacum*, and the undeveloped land lying between the rears of the Greenside, Water Street, and Blackburn Road properties is one of five areas of the fort and *vicus* 'Scheduled' under the *Ancient Monuments and Archaeological Areas Act 1979* as an Ancient Monument. Unusually, the boundary of this Scheduled area lies partly within the garage building (approximately on the line of the 1944 extension). It is intended that the west elevation of the new dwelling should avoid encroaching on the Scheduled area.

5. The evaluation may be seen as the first of a number of steps of an archaeological preservation and/or mitigation strategy, the course of which will be determined by LCAS, EH, and RVBC, in the light of the results of the evaluation.

6. The archaeological programme for the *evaluation* comprised: desk-based assessment; archaeological evaluation; backfilling; appropriate post-excavation analysis of results; an ordered archive of results; a report on the evaluation results; synoptic publication reporting

7. ***Desk-based assessment:*** previous work has shown that a timber fort was first built *c.* AD 71-74, during the governorship of Petilius Cerialis, modified *c.* AD 82-86, and subsequently demolished and rebuilt partly in stone *c.* AD 125-135. For at least part of its period of use, the fort was of high status, with a cavalry regiment garrison, and a regional governor as commanding officer.

8. Reports on adjacent archaeological excavations indicated the high potential of the site. The Scheduled Monument status of the adjacent plot warns that these deposits are perceived to be of Nationally Important archaeological significance. All parts of the presumed extent of the Roman fort and extra-mural settlement of *Bremetenacum* at Ribchester that can be scheduled as Ancient Monuments under current legislation and common practice appear to have been so designated. However, the exact nature, extent, layout, and development over time, of the extra-mural settlement is only beginning to be understood.

9. The bath house *c.* 120m to the south-west of 8A Greenside, and the Access Road site to the north of it are the closest-known major Roman buildings, but the presence of remains of less substantial structures found during works at Ribblesdale View, Greenside, Feolin and Lynton, and (probably) the River View sites (all on Greenside) confirms the density of archaeological deposits in the immediate area.

10. *Location of evaluation trench*: the location of the single *c.* 3.5m east-west x 2.5m north-south trench was decided with reference to the architect's plan. The location was very much constrained by avoidance of danger to and from the walls of the garage, two below-ground fuel tanks, a drain from the adjacent outside toilet, and the boundary of the Scheduled Area (with an exclusion zone to avoid the need for *Scheduled Monument Class Consent*).

11. Ground levels outside the garage building indicated that a considerable depth of overburden had been removed at the time of the construction of the garage. Ground level immediately to the south was 800mm above the concrete within the garage, while that to the north was 505mm higher, measured to the adjacent path, and 665mm to turf level in the garden.

12. *Archaeological description of the evaluation trench*: concrete, 80-150mm deep, was removed by machine to reveal no more than 20mm of truncated ploughsoil, overlying subsoil clay, which was cut by two groups of archaeological features. Parallel to the western 2.0m of the north baulk, extending below that baulk, and turning to form an L-shape also parallel to the northern *c.* 1.2m of the west baulk, was a *c.* 0.55m wide probable post-trench, filled by clay-loam and a number of carbon deposits and burnt clay deposits. The eastern terminal of this feature was investigated, and found to represent more than one phase of use. A cut *c.* 340mm deep, with a fill including daub fragments, was cut by a later feature *c.* 270mm deep, filled by clay-loam containing carbon flecks. This L-shaped cut feature is probably the construction trench for a timber building, which would probably have contained substantial wall posts with wattle and daub infill. It is not known where the inside and outside of the building were, nor whether the area east of the trench terminal was part of a structural gap (eg an entrance).

13. The southern half of the trench revealed a linear feature filled by clay-loam that was indistinguishable from the ploughsoil, and into which the L-shaped linear feature in the north-west corner ran and merged. In the south-east corner of the trench an area of cobbles, containing **a large fragment of a Roman altar**. It is very likely that the feature in which the altar was found was a pit, cut into the subsoil clay, but neither the shape, dimensions, nor depth of the pit are known, beyond stating that the feature is larger than the *c.* 1.20m diameter seen, by an unknown extent to the south and east. We do not know whether the pit containing the altar lay inside or outside the structure represented by post trench.

14. The lack of dating evidence, indeed of any artefacts or ecofacts, in the pit fill - apart from the altar itself, which Dr David Shotter of the Dept. of History, University of Lancaster, considers may be of late-second or early-third-century date - leaves open to debate the date when the altar was buried. It is not known whether the pit was dug for the specific purpose of burying the altar, or for another purpose altogether, nor how long an interval elapsed between its excavation and filling. The Roman altar fragment lay angled at *c.* 45° to the vertical, with its broken-off top pointing downwards, inscribed face downwards, and base upwards. ***At the recommendation of LCAS, the pit was only excavated to sufficient depth to remove the altar, and no attempt was made to remove the underlying fill.***

15. The relationship of the pit containing the altar to the linear feature parallel to the length of the trench is unclear, but the latter appears to be a shallow (*c.* 130mm deep) gully, probably of post-medieval date.

16. *The finds:* a total of 43 fragments of artefacts and ecofacts was recovered during the excavation. The material was in fair condition but, with the exception of the altar, was in the form of very small fragments The few sherds of Roman pottery were all recovered from the fill of the probable post-trench, while the medieval or early post-medieval ceramics were exclusively from the thin horizon of ploughsoil. Curiously, no artefacts of any period were found in association with the Roman altar, making the dating of its deposition impossible.

17. ***The Roman altar fragment*** was made from gritstone and, to judge from the irregularity of its surviving dimensions, was rather crudely manufactured. The base was sub-rectangular in shape, measuring 360mm (front) x 360mm (right) x 360mm (back) x 330mm (left); the base stood 150mm in height. Above the base were convex mouldings - two at the front and three on the left side; the moulding to the rear and to the right side were damaged or absent. The surviving portion of the shaft had a maximum height of 210mm above the base and mouldings. There was no extant decoration on the altar sides or rear.

18. Parts of the final three lines of text were visible:

L Λ I M [	Line 1
M I Λ · S I [	Line 2
V · S · L · L · M	Line 3

19. It is surmised that possibly three letters have been lost at the right side of Line 1, two in Line 2, whilst Line 3 is complete except for the fracturing of the right-hand side of the final 'M'. It is hardly possible to reconstruct the text beyond:
[LAIM[ ] / MIA SI[ ] / V(otum) S(olvit) L(ibens) L(aetus) M(erito)
The first two lines presumably contain a name and a rank, whilst the final line is a version of the common formula, meaning 'he willingly, happily, and deservedly fulfils his vow'. There is unfortunately nothing surviving in the text to offer a clue as to which deity the altar was dedicated.

20. The name of the individual is beyond recovery, although the *cognomen* may be such name as [LA]MIA. The last two letters of Line 2 presumably conceal the rank of the dedicator, which might be either SI[G(N)] for *Signifer* ('standard-bearer') or SI[NG} for *Singularis*; the *equites singulares* were picked from cavalry units to act as mounted bodyguards.

21. The altar bears no obvious means of dating, but probably belongs to the late-second or early-third centuries. It joins a small group of such inscriptions from Ribchester. Of the 18 inscriptions on stone from Ribchester, at least eight relate to temples. These relate to the cults of Jupiter Dolichenus, the Romano-Celtic 'fused' deity Apollo Maponus, Mars, and the Mother Goddesses.

22. Scenarios regarding its deposition may include:

1. intentional and careful burial of a superseded altar, face-down, in a newly-dug pit, as part of a formal re-dedication or other ritual. There are perhaps slight similarities to the systematic picture seen at Maryport, where altars were dedicated annually to 'Jupiter Best and Greatest', and periodically buried face-down in large pits.
2. Ritual burial of a damaged and disused altar, possibly found in the Ribble or Duddel Brook.
3. The altar may have no more significance than as a piece of rubble, buried along with cobbles at some unknown later date.

23. *Temples and deities:* 'The range of Romano-British buildings which can be associated with cults is very broad ... the plan of a temple in isolation is almost certainly misleading - they should normally be seen as components of a religious zone' (de la Bédoyère 1991). *No building so far found at Ribchester is currently interpreted as a temple.*

24. *Assessment of the impact of the development: the desired outcome is for there to be no significant impact on the archaeological deposits and structures described above, and those in adjacent parts of the development site.* Lancashire County Council's strategy for *Heritage conservation in Lancashire*, which embraces the Government's Planning Policy Guidance notes on *Archaeology and Planning* (PPG 16, DoE 1990), takes as its baseline:

> 'Where nationally important archaeological remains, whether scheduled or not, and their settings, are affected by proposed development, there should be a presumption in favour of their physical preservation.'

25. Taken as a whole, the fort and extra-mural settlement at Ribchester are perceived to be of Nationally Important archaeological significance. The Scheduled Monument status of the adjacent open plot, and the overlap with the development site of the SAM boundary, indicate that English Heritage and LCAS may expect the developers and their agents to act with even greater care than might usually be the case in Ribchester to ensure compliance with national policies. *There is a presumption that development on sites of national archaeological significance will not be permitted without active minimisation of damage to the archaeological deposits, and mitigation measures where damage is unavoidable. Conversely, archaeological excavation of sites will not take place needlessly, if a construction strategy can be devised which reduces or negates the need for destruction of archaeological deposits.*

26. The developer will normally be expected to fund all such archaeological provision, including on-site watching briefs and excavations, a post-excavation assessment of the artefact assemblage and archive, all such further analysis as that assessment reveals to be appropriate, and publication in appropriate media of the results. LCAS, and English Heritage must be consulted in advance of works.

27. *Construction options:* **the archaeological contractor is neither a qualified structural engineer, nor an architect, nor a local government building control officer: the developers (the Clients or their successors in tenure) should to seek advice from these and other professionals before committing to a particular foundation design strategy.**

28. *Re-using the garage footprint:* a development adjacent to 28 Water Street presented similarities to 8A Greenside. There a barn/workshop was demolished, the foundations grubbed-out, and a new dwelling built largely on the same footprint, the concrete and cobble floor within the building being sealed below new concrete. Archaeological watching brief provision was limited to recording of the sides of the old foundation trenches, and some new foundations. This methodology presented difficulties in the interpretation of the archaeology, but complies with the national planning advice.

29. *Concrete raft supported on mini-piles:* during a number of recent developments in Ribchester the construction strategy adopted was a supported concrete raft, the support coming from a perimeter reinforced-concrete beam, resting on 150mm-diameter mini-piles at centre-to-centre spacing of (say) 2.0m. The method has gained LCAS and English Heritage support as the construction method of choice on sites where serious damage to archaeological deposits would result if any other construction methodology were to be adopted.

30. *Recommendations: even if the development does not take place* the evaluation project must be archived and published, as costed in the Project Design. A limited amount of further research into the Roman altar is appropriate, has been discussed with LCAS, and has been commissioned by the present writer from specialists. No further cost implications are expected *at present*. This further work should comprise:

1. Study of the altar under studio-lit conditions, to confirm the reading of the less clear letters, and to determine whether there is a partly erased earlier inscription,
2. Limited desk-based study to determine the likely name of the donor, and
3. Production of a publication-quality scale drawing,

31. **Archaeological provision during development: the Clients must consider carefully the various construction methodologies available to them, and seek to reduce or if possible negate the extent to which new disturbance takes place of these archaeological deposits, during construction of the new dwelling's footprint, interior partition walls, and in the adjacent areas of the forecourt and rear garden/patio.**

32. **If further areas of concrete floor have to be removed, a road saw should be used instead of a concrete breaker, which damaged the archaeological deposits.**

33. **Cast *in situ* mini-piles should be used, with permanent metal casing, and these should be bored by percussion rather than auguring. Obstructions should be cored, to avoid the situation where archaeological strata have to be damaged during removal of obstructions by machine excavation.**

34. ***From discussions to date, it seems likely that a concrete raft, emplaced above the present concrete floor of the new dwelling and supported on piles below the perimeter and internal walls, is the appropriate construction strategy. The duration of an archaeological watching brief (and the possibility of an enhanced provision (i.e. partial excavation) if a piling strategy were to be adopted, depends on (among other factors):***

1. **The depth of the foundations for the present garage, and at what stage piling takes place. For example, piles could be driven through the old foundations, or emplaced after their removal. In the latter case, the base of the foundation trenches may require to be recorded archaeologically.**
2. **The extent, if any, of removal required for the old concrete garage floor, forecourt, and concrete to the west of the proposed dwelling. Any such removal may, at LCAS / EH's discretion, require archaeological recording of underlying deposits, followed by laying of a geotextile membrane, before re-burial.**
3. **Whether the diesel tanks are to be removed or made inert by other means. It is not known whether they are surrounded by emplaced gravel or dug directly into the buried archaeological deposits, thus requiring archaeological recording if removed.**
4. **Similarly, if the existing drain courses are re-used, with new piping, LCAS / EH may consider it appropriate to record the trench sides. The same applies to all other utility trenches.**
5. **If piling is required in the interior of the proposed dwelling, LCAS / EH may consider it appropriate to require selective archaeological excavation in advance of piling. The positions of the internal north-south and east-west room division walls, as currently proposed, cut (or probably cut, outside the evaluation trench) all of the archaeological features revealed during the evaluation. *The architect has advised that it may be possible to position piles, especially within the interior of the dwelling, in such a way as to avoid or minimise damage to archaeological deposits. In the archaeological contractor's experience, this is possible if narrow (500-600mm wide) trenches are excavated to the top of archaeological deposits prior to the emplacement of piles.***

1. INTRODUCTION

1.1 ***Circumstances of the evaluation:*** Nigel R. J. Neil, MA, MSc, MIFA, LRPS, FSAScot, of N. Neil Archaeological Services undertook an archaeological trial-trench evaluation, between 19 and 23 November 2001, concerning proposed re-development of a site presently occupied by a former livestock haulage garage, adjacent to 8A Greenside, Ribchester, Ribble Valley Borough, Lancashire (NGR SD 65155 35315). The work was commissioned by Mr Alan Procter (the Client), the present owner, through Sunderland Peacock and Associates, architects, of Clitheroe.

1.2 Acting on advice from the Lancashire County Archaeological Service (LCAS), part of Lancashire County Council's Environment Directorate, Ribble Valley Borough Council (RVBC) imposed a condition to planning approval to Application No. 3/01/0541/P, requiring the pre-determination archaeological evaluation of the site. LCAS supplied the Client with a Project Brief (Appendix 1); and the archaeological contractor prepared a Project Design (Appendix 2). The requirement for an archaeological evaluation followed standard planning procedures, as set out in the Government's Planning Policy Guidance note '**PPG** 16' *Archaeology and Planning* (DoE 1990), and implemented in accordance with Lancashire County Council's heritage strategy (LCC 1999, Appendix 1).

1.3 The evaluation trench was excavated inside a rendered brick former livestock haulage garage building, built in 1939, with a wider extension to the west added in 1944 (Mr A Procter, pers comm). No documentary evidence has been found for post-medieval structures on the development site, but the adjacent houses date from between *c.* 1770 and 1790. The proposed development comprises the demolition of the garage building, and the erection of a new two-storey dwelling on a slightly smaller footprint.

1.4 The site lies within the *vicus* or extra-mural settlement adjacent to the Roman fort of *Bremetenacum*, and the undeveloped land lying between the rears of the Greenside, Water Street, and Blackburn Road properties is one of five areas of the fort and *vicus* 'Scheduled' under the *Ancient Monuments and Archaeological Areas Act 1979* as an Ancient Monument (SAM, ref Lancs 55). Unusually, the boundary of this Scheduled area lies partly within the garage building (approximately on the line of the 1944 extension), possibly a result of pre-1944 maps having been used when the site was first scheduled. It is intended that the west elevation of the new dwelling should avoid encroaching on the Scheduled area. However, the proposed adjacent patio would overlie part of the SAM, and Scheduled Monument Consent (SMC) is therefore required for the development, and has been sought, in addition to planning consent. SMC is in any case required also for demolition of that part of the garage within the SAM.

1.5 The Clients and archaeological contractor were advised by English Heritage's North West office that SMC Class Consent 7 would *not* be required, under the provisions of *The Ancient Monuments (Class Consents) Order 1994*, if the archaeological works for the evaluation did not actually encroach on the boundary of the SAM. Note that boundaries of SAMs are generally regarded as corridors of *c.* 3m width, rather than as narrow lines (P McCrone, LCAS, pers comm).

1.6 By implementing a pre-construction archaeological evaluation, there may be opportunities to locate the new house, and design its foundations and associated landscaping and access, in such a way as to minimise damage to archaeological deposits, hence possibly reducing the requirement for further archaeological provision before or during construction.

1.7 The evaluation may be seen as the first of a number of steps of an archaeological preservation and/or mitigation strategy, the course of which will be determined by LCAS, EH, and RVBC, in the light of the results of the evaluation. Such a strategy may include some or all of the following:

1. **Evaluation, report, and archive:** this project.
2. **Larger-scale archaeological area excavation of part, or all, of the site**

and/or

3. **Permanent Presence Watching Brief during construction**
4. **Post-excavation assessment of the results**, including cleaning, quantification, identification, and qualitative assessment of the artefact and ecofact (eg animal bone, soil samples, etc.) assemblage, for future deposition with Ribchester Museum.
5. **An assessment report** on the excavation, describing results, placing the site in its local and regional context, and including drawn and photographic illustrations, and an appraisal of the need for further investigations, or analysis of the finds assemblage.
6. **Further finds and environmental analysis**, if appropriate.
7. **Final Client report**
8. **An ordered archive** of results, for deposition with Lancashire Record Office and/or Ribchester Roman Museum.
9. **Publication reporting of the trial excavations and excavation/watching brief** in appropriate county, period, and popular archaeological journals. Interim notes may be appropriate if there is a hiatus after the evaluation.

1.8 The archaeological programme for the ***evaluation*** comprised:

1. **Desk-based assessment and project preparation:** reference to relevant records of excavations and watching briefs undertaken nearby, known to LCAS, Ribchester Roman Museum, and English Heritage (National Monuments Record, Swindon).
   Study of map sources to determine whether any demolished post-medieval structures lie within the development, so that these can be avoided during the evaluation.
   Contact utility companies to obtain location of pipes and cables (obtained from Client).
2. **Archaeological evaluation:** excavation of one 2 x 3m or similar area trench. All archaeological deposits revealed (of whatever date) being recorded, sampled, and excavated to appropriate standards, and artefacts of all periods (and their location) recovered.
3. **Backfilling and re-instatement:** the trenches will be backfilled by machine, tamped-down, and a thin concrete surface laid.
4. **Appropriate post-excavation analysis of results**, including cleaning, marking identification, and assessment of the artefact (ie finds) and ecofact (eg animal bone, soil samples, etc.) assemblage, but not extensive study at this stage of the development, unless required by LCAS/EH.
5. **An ordered archive** of results, for eventual amalgamation with further records from the site, and deposition with the Lancashire Record Office, Preston, and/or Ribchester Roman Museum.
6. **A report** on the evaluation results, including drawn and photographic illustrations, and an appraisal of the need and design of for further site investigations.
7. **Synoptic publication reporting of the trial excavations** in appropriate academic and popular archaeological journals.

2. METHODOLOGY

2.1 Standards

2.1.1 The aims of the archaeological evaluation, undertaken in compliance with the Institute of Field Archaeologists' *Standard and guidance for archaeological evaluations* (IFA 1994, revised 1999a), *Standard and guidance for the collection, documentation, conservation, and research of archaeological materials* (2001), LCAS' *General conditions for appropriate archaeological contractors in Lancashire* (2001; Appendix 1 of the LCAS Project Brief), and other appropriate standards, in accordance with LCAS's Project Brief (Appendix 1), and the writer's Project Design (Appendix 2), were to identify and record all significant archaeological features, and objects revealed.

2.1.2 The fieldwork was undertaken on 19-23 November 2001, in cold conditions with outbreaks of heavy rain. The level of daylight and artificial light (strip-light) within the garage was poor, so a 275 watt photoflood lamp was used to supply most of the working light. Photographs were taken using this and an 80B (blue) colour-balancing filter, and/or flash.

2.1.3 The archaeological programme for the evaluation comprised:

1. ***Desk-based assessment and project preparation:*** reference to records of excavations and watching briefs undertaken in adjacent plots, such as are known to LCAS, Ribchester Roman Museum, and English Heritage's National Monuments Record, Swindon (NMR). The NMR had been contacted for a previous project and had supplied brief information on all archaeological undertakings *c.* 1813-1997 known to them, these are referred to in the following text by their Unique Identifier (NMR xxx). Work recorded additionally (or only) on the Lancashire Sites and Monuments Record (LSMR), maintained by LCAS, are also identified in the text. Many of these earlier excavations are published only in minor popular archaeology bulletins, such as *Lancashire Archaeological Bulletin* and *Ribble Archaeology*, both now discontinued. Only a few selected references given to these in the NMR list have been checked.
   Limited study of map sources to determine whether demolished structures lay within the development, so that these could be avoided during the evaluation (OS 1893 shows field boundaries but no structures).
   Determine the *location of utility pipes and cables* and any other below-ground obstructions to be avoided. The Client, Mr Procter was able to supply this information verbally.

2. ***Field evaluation:*** as was envisaged in the Project Design, one *c.* 3.5m E-W x 2.5m N-S trench was excavated inside the garage building, approximately in the centre of the footprint of the proposed house, the location very much constrained by maintaining a safe (2m) distance from the walls of the garage building, the below-ground diesel tanks at the east end of the garage, and the boundary of the SAM to the west.
   Recording procedures: all archaeological deposits revealed were recorded, and excavated to appropriate standards, and artefacts of all periods (and their location) recovered. On-site recording comprised the brief description of archaeological horizons ('contexts'; see Appendix 3), and drawing of trench plans at two stages (combined in Fig 3) at 1:20 scale, and baulk and feature cross-sections at 1:10 scale. Spot heights on selected reference points were taken by dumpy level with reference to a Temporary Bench Mark, which was then tied-in to the OS Bench Mark on No. 9 Blackburn Road (28.18m AOD). *Note that the elevation on which this BM is inscribed has been re-built in recent years (?10-15 years ago), and it is unknown whether the United Utilities (2001) sewers and drains map from which it is derived contains updated information.*

2.1.3 (item 2)(continued) Breaking-up of concrete was achieved using a an Ingersoll-Rand Montabert 130 breaker attachment to the JCB 3CX. The concrete and underlying very thin deposit of ploughsoil were then removed using the machine's back-acter with a 0.80m toothless bucket, the deposits revealed being cleaned and photographed, down to the top of *in situ* archaeological deposits. A *sondage* trial pit, to determine the depth of deposits, was partly excavated by machine at the SE corner of the evaluation trench, but was quickly found to cut the cut feature [10] containing the Roman altar, so machine excavation was abandoned. One other cut feature was cross-sectioned.

3. ***Backfilling:*** the trench was backfilled by the Client, over a membrane of geotextile.

4. ***Appropriate post-excavation analysis of results,*** included cleaning, bag identification (not actual finds marking, pending finalisation of a Ribchester Museum marking system), and assessment of the assemblage by the archaeological contractor. More detailed, specialist study, of the Roman altar was clearly indicated, and agreed with LCAS. This was sub-contracted to Dr David Shotter, of Lancaster University's Department of History. Mr Ben Edwards, former Lancashire County Archaeologist, agreed to prepare a drawing of the altar for publication (pending, at time of writing).

5. ***An ordered archive*** for amalgamation with any further records from the site, and deposition with the Lancashire Record Office, Preston, and/or Ribchester Roman Museum.

6. ***This report*** on the evaluation results, including drawn and photographic illustrations, and an appraisal of the need and design of for further site investigations.

7. ***Synoptic publication reporting of the trial excavations***
A short report will be sent for publication in *Britannia*, the journal of the Society for the Promotion of Roman Studies, to appear in the fieldwork and inscriptions sections of the 'Roman Britain in 2001' annual compilation of work. Copy deadline is early April 2002, for publication in December 2002. Popular publication in *Archaeology North-West* (North-West Group of the Council for British Archaeology), is also an LCAS requirement.

2.2 Public Domain
The LCAS copy of the report will be accessioned into the Lancashire Sites and Monuments Record, and will become a Public Domain document within 6 months of the fieldwork, unless another timetable is agreed in writing between LCAS and the Clients. Copies of the report will accompany the archive and finds assemblage, and will be sent to the National Monuments Record, Swindon (the public archive of English Heritage).

2.3 Confidentiality
Notwithstanding Paragraph 2.2, the evaluation report is designed as a document for the specific use of the Clients, RVBC, and LCAS, for the particular purpose as defined in the Project Brief and Project Design. It is not a publication academic report. Any requirement to revise or re-order the material for presentation to third parties, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

2.4 Project monitoring
The Planning Officer (Archaeology) at LCAS, Mr Peter McCrone, discussed the evaluation with the Client, architect, and archaeological contractor at a pre-project site meeting, and monitored the work at a site meeting on 22 November. The RVBC Building Inspector, Mr Chris Shuttleworth, and the architect, discussed structural considerations at a meeting with the Client and archaeological contractor on 26 November.

3. RESULTS

3.1 Physical background

3.1.1 ***Location:*** Ribchester lies at *c.* 27m AOD among low hills which form foothills to the peat-covered uplands of the central Pennines. To the north and south the land rises markedly, with Longridge Fell (5 km to the north), an isolated Pennine outlier, rising to over 350m AOD, and Anglezarke Moor, less than 16km to the south. Westwards, the land drops gradually seawards, meeting the Irish Sea, at the mouth of the Ribble, below the flat, former mosslands, of the Lancashire Fylde (abridged from Buxton and Howard-Davis 2000, 3).

3.1.2 ***Solid geology:*** the solid geology around Ribchester is dominated by the 'Sabden Shales', which belong to what was previously called the Millstone Grit Group, now parts of the Namurian phase of the Upper Carboniferous (Bridge 1989, 11-15; Inst Geol Sci 1978). This *c.* 220m thick formation comprises shales, mudstones, and marls (Bridge *op cit*; Edwards *et al* 1954, 36-7; Buxton and Howard-Davis 2000, 3).

3.1.3 ***Drift geology:*** the solid geology is masked by up to 50m of boulder clay deposits. The till exposed at the surface is typically a reddish brown sandy clay with grey mottling, containing beds of laminated clay, sands and gravel, and rock fragments of Triassic derivation and older material, though deposits closer to the rockhead are greyer and contain clasts of a mainly Carboniferous provenance (Bridge 1989, 15; Buxton and Howard-Davis 2000, 3).

3.1.4 Ribchester village and the fort are thought to stand on deposits of a Second Terrace of the Ribble which rises to *c.* 3-4m above the floodplain (Bridge 1989, 17). This terrace formation is being actively eroded with about one third of the area of the fort lost to fluvial processes to date (Bridge 1989, 16; Buxton and Howard-Davis 2000, 1). Based on the river terrace topography, Learoyd (1962; LRO DDX 547/1-2) charted a possible course of the Ribble in Roman times, putting the river close to the south-east corner of the fort.

3.1.5 ***Soils:*** LUAU (Buxton and Howard-Davis 2000, 3) studied the soils of the river terraces adjacent to the fort by auger survey. Soils of the Second Terrace comprised 0.60 to 0.80m of unmottled sandy loams, overlying slightly mottled sandy clay loams at depth. The Soil Survey of England and Wales (Lawes 1983) classify these soils as Flint Association [map symbol 572l], while the alluvial soils closer to the river are Alun Association [561c], and the soils over till further from the river, over most of the presumed extent of the *vicus*, are Salop Association [711m].

3.2 Archaeological and historical background

3.2.1 ***Prehistoric:*** little is known of prehistoric Ribchester, although Olivier and Turner (1987, 58-60) excavated a Bronze Age circular ditch and cremation burials in collared urns, radiocarbon dated to *c.* 1300 BC (uncalibrated). The county is noted for its paucity of Iron Age finds, an as yet little-discussed or fully explained, anomaly (Haselgrove 1996, 61).

3.2.2 ***Roman:*** the fort and its environs have been the subject of much archaeological research, including over 100 excavations from the early 1800s onwards, most of those from the 1960s onwards being in advance of development. A report on excavations by Lancaster University Archaeological Unit (LUAU, now Oxford Archaeology North) in the extension to St Wilfrid's cemetery, and at Ribblesdale Mill (Buxton and Howard-Davis 2000), and a popular work on the history of excavation and thought about Roman Ribchester (Edwards 2000), have both been published recently.

3.2.3 This work has shown that a timber fort was first built *c.* AD 71-74, during the governorship of Quintus Petillius Cerialis Caesius Rufus, son-in-law of the Emperor Vespasian (Shotter 1999a, 9 and 14; Shotter 1999b, 5; Buxton and Howard-Davis 2000, 401-03), and undoubtedly before Agricola's governorship of AD 78-84. In the absence of other similarly

early sites, it may have been served by sea and river, rather than road (Buxton 1996, 11). The fort was modified *c.* AD 82-86, and subsequently demolished and rebuilt partly in stone (the defences and *latera praetorii* - the central range of buildings) *c.* AD 125-135. For at least part of its period of use, inscriptions indicate that the fort was of high status, with a cavalry regiment garrison, and a regional governor as commanding officer. Ribchester appears in the early third-century *Antonine Itineraries*, the fourth-century *Notitia Dignitatum*, a list of officials and military units, and the seventh-century *Ravenna Cosmography*, which allow it to be firmly identified as *Bremetenacum* (there are a number of spelling variants), and suggest that it was relatively well-known in the Roman world (Edwards 1981, 17; Rivet and Smith 1981, 277; Shotter 1997, 111-15).

3.2.4 The presence of defences around the extra-mural settlement at Ribchester, seen in Parsonage Avenue, Fort Avenue, and probably Alandale House, Church Street is unusual in the North-West, but not exceptional. Examples are present at Chesterholme (*Vindolanda*), Melandra, Slack, Malton, Ilkley, Doncaster, and possibly Greta Bridge (Olivier 1987, 118). The physical and theoretical distinctions between military annexes and *vici* are, however, blurred. Fear of attack, perceived vulnerability, delimitation, and civic pride (the latter has been disputed), have been suggested as motives for such defences, though there is no reason why the motives should be identical in each instance. A strong case has been made for army involvement in the construction, ownership, and tenancy of the extra-mural settlement at Ribchester (Buxton and Howard-Davis 2000, 122-6 and 420).

3.2.5 ***Historical importance:*** realisation of the town's former importance came in the sixteenth century. John Leland (Itin IV (1) 22, quoted by VCH 7, 36), antiquary to King Henry VIII, wrote *c.* 1540:

> *'Ribchestre is now a poor thing; it hath been an auncient towne. Great squarid stones, voultes and antique coynes be found ther...'*

William Camden (ed Gibson 1695, 791), writing in 1586, recorded a number of recently-found inscriptions, for some of which his is the only record, and he quotes a contemporary rhyme of the local inhabitants, which may be wishful-thinking rather than truth:

> *'It is written upon a wall in Rome,*
> *Ribchester was as rich as any town in Christendome'.*

3.2.6 In the *vicus*, on the Ribblesdale Mill site (NMR 652428), now the Sarmatian Fold housing development, large timber buildings of possible military pattern, first constructed *c.* AD 125, were excavated in 1990-1 by LUAU (Buxton and Howard-Davis 2000, 139-47). Towards the middle of the second century, the buildings were demolished, and the land appears to have been returned to agricultural use. Although a number of hypotheses can be put forward, one explanation is that this was part of a veteran soldiers' settlement, as implied by one of the names for the fort - *Bremetennacum Veteranorum* - found in the *Ravenna Cosmography*. Two inscriptions confirm the presence of Sarmatian soldiers at Ribchester - probably one *ala* (500 men, from a total Sarmatian draft of 5500). A pedestal (RIB 583; Richmond 1945, 18), dated to AD 241 in the reign of Emperor Gordian III by its inscription, bears sculptures of Apollo and other figures, and is acclaimed by Edwards (1981, 27) as 'in many ways the most interesting sculptured and inscribed stone from Ribchester'. It was found in 1578 and built into nearby Salesbury Hall from then until 1814. The other is a dedication tablet for a restored temple, re-used as a paving slab in the commander's house (*praetorium*) and found in 1811 (RIB 587; Richmond 1945, 19-20). The linking of the Sarmatian garrison from northern Rhineland, modern Hungary, with a veterans settlement at Ribchester, has yet to be confirmed other than by these inscriptions, and may not be provable archaeologically (Buxton and Howard-Davis 2000, 420).

3.2.7 Ribchester was at a cross-roads of Roman roads: south to Manchester, called Margary 7b (NMR 1165064; Margary 1967, map 17), north to Low Borrow Bridge (Tebay) and Carlisle (7c; NMR 966041), eastwards to Elslack and Skipton (72a), west to Kirkham and Poulton-le-Fylde (703), and north-westwards (704) to join the Preston to Lancaster road (70d) at Galgate. The Margary 7b-7c crossing of the River Ribble is around half a mile to the east of the fort. The road whose course is followed from the fort, along Water Street and then Stoneygate Lane, is a link road, mentioned but not numbered by Margary, which joins 7c at Cherry Yate, near Stidd chapel. (Hodge and Ridge 1997, 7; Graystone 1992, 13).

3.2.8 ***Early medieval:*** Jones (1971, 279) has suggested the possibility that the fort and/or *vicus* continued in use into the Anglo-Saxon period, without a hiatus. However, whilst the fort at Ribchester seems to have been occupied in some way until the late fourth century (eg coins from *c.* AD 367), and perhaps until the Roman withdrawal of *c.* AD 409, no structures in the fort or *vicus* dateable to later than *c.* AD 200 have yet been found, with the exception of the bath house (NMR 629313; Buxton 1996, 16; Buxton and Howard-Davis 2000, 421; Shotter 1997, 102). Little is known of Lancashire in the 'Dark Ages' of the fifth to eighth centuries, and still less of Ribchester. A church of some kind may well have existed within the shell of the fort by the seventh century, but may have been destroyed during Viking raids. Celtic cross fragments have been found in the churchyard, and Edwards (1981, 22) lists the handful of other post-Roman, pre-Norman, finds. Though small, *Ribelcastre* was assessed in *Domesday Book* in 1086 (VCH, 7, 45). A church is firmly attested from 1193 (VCH 7, 40; NMR 43700).

3.2.9 ***Place-names - Ribchester and the River Ribble*** the pre-Roman Celtic (aka 'British') name for Ribchester may have been *Bremetona*, meaning 'roaring river', giving the Latin name *Bremetenacum* (Rivet and Smith 1979, 277). Ribchester lies on the north bank of the River Ribble. The Roman name for the River Ribble was *Belisama* (Rivet and Smith 1979, 267-8), from the Celtic *bel-* ('bright, shining') and the superlative *-isama*. Ekwall and others consider that the form of the river name *Ribbel* may contain the *bel-* element of its Roman name (Ekwall 1922, 65 and 144-5). The place-name form *Ribelcastre* is found in *Domesday Book*, but by 1202 became *Ribbecestre*, the name perhaps exhibiting differences in dialect between the *-caster* (cf Lancaster) of the Old English word *ceaster* 'walled town', usually found in the former the Northumbrian lands north of the Ribble, and the *-cester* or *-chester* forms (eg *Mamecestre* = Manchester) from the Mercian lands found south of the river (Newman 1996, 96).

3.2.10 Greenside was formerly called Strangle Lane (Dixon 1975a and b), but the change of name occurred before 1893 (OS).

3.2.12 ***Medieval:*** the VCH (7, 36) admit that the medieval history of Ribchester is 'obscure'. From being in Earl Tosti's Fee of Preston, in Amounderness hundred, before 1066, the village and adjacent townships, became part of the Honour of Clitheroe and Blackburn hundred in the twelfth century. It may have been a 'wasted vill' at the time of *Domesday*, possibly having undergone destruction during the Harrying of the North in 1069-70, and suffered again at the hands of Robert the Bruce in 1322. It never became a borough, and never had a market. From *c.* 1150, there may have been a manor house north-west of the church, abandoned *c.* 1450 when the lord moved to Dutton (NMR 887117). Through the Lacy family, the superior lordship became Crown property, though the immediate lords were the Motons, then the Lynalx family from *c.* 1400, who sold in 1581 to the Shireburns of Stoneyhurst, who sold to the Fentons in 1831 (VCH 7, 45-51; LUAU 1998, 70-1).

3.2.13 ***Post-medieval:*** Ribchester's remoteness from the post-medieval road system, and its lack of a market, were cited in a lawsuit in 1634 as reasons for its poverty. Flax spinning and linen weaving were then the main occupations. In the mid-eighteenth century technical improvements allowed hand-loom cotton weaving from home to become common, along with related industries such as bobbin making. There were two cotton mills in Ribchester: Ribblesdale Mill (opened 1862-3), and Bee Mill (1889-90; Rothwell 1990, 69-70).

3.3 Desk-based assessment

3.3.1 ***The vicinity of the present development:*** the proposed development site is centred *c.* 50m (30m at street frontage) from the Duddel Brook, *c.* 200m from its confluence with the River Ribble, the land on the opposite side of Greenside, between the brook and the road, being taken up with gardens, a parking area, and public open space. The course of the first stretch of the Roman road eastwards from the fort (Margary 72a; Margary 1967, 371) is not known for certain, but Graystone (1996, 69) states that it begins to the south of the bath house, crossed the Duddel Brook nearby, and crossed the Ribble between New Hall and the De Tabley Arms. This would put the 8A Greenside site *c.* 80 to 100m north of this road.

3.3.2 The *c.* 65 m east-west x 50m area to the west of the proposed development (and overlapping by *c.* 6m with it) was Scheduled as an Ancient Monument, it seems, more because of the *potential* of archaeological deposits relating to the *vicus* than in response to actual discoveries, and because it was a large undeveloped area. However, finds during development on all sides of the proposed works at 8A Greenside indicate that the extra-mural settlement, *vicus*, almost certainly extended over this area. The extra-mural bath house, excavated in 1927 and 1965-8 (NMR 634140; 629313), lies *c.* 120m south-west of 8A Greenside. The so-called Access Road site to the north of the bath house, *c.* 70m from the development at closest, in 1977 produced a stone building of *c.* AD 130-140 and other structures (Witherington 1987; NMR 633806). Work in this area in 1978-82 revealed a Roman industrial site, and an altar (NMR 634139; Hassall and Tomlin 1994, 298).

3.3.3 During construction of a garage at Ribblesdale View, Greenside, to the east of the Access Road site and *c.* 80m south-west of the present development, traces of a stone wall, flagged area, and early/mid 2nd century ceramics were recovered (LSMR 1606; Witherington 1987). The closest discoveries to 8A Greenside have been made *c.* 50m to the south-west. In 1971, during construction of the semi-detached houses Feolin and Lynton, near the south-west end of Greenside, second century pottery was recovered and a post-hole recorded (Edwards 1971). In 1975, apparently immediately to the west of the 1971 works, on 'the site of a proposed bungalow' (grid reference not given. The house called River View has a datestone 1982, but is of two storeys), the Ribble Archaeological Society recorded four periods of fire-destroyed structures, including one post-hole belonging to a very substantial building, with pottery dating to before AD 160 (Dixon 1975a and b).

3.3.4 Other key sites in the vicinity of 8A Greenside include a cremation cemetery at 49 Church Street (NMR 1268152) and, in the Clarendon Haulage yard east of Church Street, a circular hut, smithy/working floor (NMR 634156), hypocaust *pilae* at 25 Church Street (NMR 649804), and a Roman industrial building at No. 2 Ribblesdale Road. Watching briefs during a development adjacent to 28 Water Street, and at 'Alandale House' on Church Street to the west of this, revealed ditches and parts of buildings, and work at Lower Boyces Farm also revealed Roman deposits. Numerous other watching briefs have revealed Roman finds, but no identifiable structures, including work by the present writer at 56 Church Street, 5 Blackburn Road, and Bee Mill, and at Lower Boyces Farm, Blackburn Road (P Tostevin, Ribchester Roman Museum, pers comm).

3.4 Field evaluation

Numbers in brackets in the text (eg [3]) refer to archaeological features and soil horizons, termed 'contexts'. See Appendix 3 for reference list.

3.4.1 ***Location of trench:*** the location of the single *c.* 3.5m east-west x 2.5m north-south trench was decided with reference to the architect's plan of the proposed development and known on-site hazards (Fig 2). As stated in Para. 2.1.3(2), above, the location was very much constrained by avoidance of danger to and from the walls of the garage, from which a minimum of 2m clearance was kept, two below-ground fuel tanks, a drain from the adjacent outside toilet (Mr A. Procter, pers comm), and the boundary of the Scheduled Area (with an exclusion zone to avoid the need for *Scheduled Monument Class Consent*). The size of the trench was initially *c.* 2.5m square, but when it became apparent that archaeological deposits lay directly below the concrete, the trench was lengthened eastwards to increase the sample size.

3.4.2 Ground levels outside the garage building indicated that a considerable depth of overburden had been removed at the time of the construction of the garage (1939, extended to west in 1944). Ground level immediately to the south was 800mm above the concrete within the garage, while that to the north was 505mm higher, measured to the adjacent path, and 665mm to turf level in the garden.

3.4.3 Regrettably, it was found during excavation that the heavy concrete-breaker drill-bit caused depressions (up to 200mm deep) in the underlying archaeological deposits. Therefore, ***it is recommended that, if further areas of the concrete slab have to be removed, a road saw be used instead of a concrete breaker, which is clearly too powerful for the task.***

3.4.4 ***Archaeological description of the evaluation trench*** (Figs 3-9): concrete [01], between 80mm and 150mm in depth, was removed by machine to reveal a mid-brown clay loam [02] over most of the trench, interpreted as the base of the truncated ploughsoil. In one area, burnt clay [05] was directly overlain by concrete. Removal of *c.* 15-20mm of ploughsoil [02] revealed light to mid-orangey-brown clay, shown to be subsoil, which was cut by two groups of features.

3.4.5 Parallel to the western 2.0m of the north baulk, extending below that baulk, and turning to form an L-shape also parallel to the northern *c.* 1.2m of the west baulk, was a *c.* 0.55m wide feature (cuts 15, 16), filled by mid to dark brown clay-loam [07], with very few stones. Apparently representing lenses within 07, were a number of carbon deposits [04, diameter *c.* 0.40m; 08, diameter *c.* 0.20m] and burnt clay deposits [05, 0.80m x 0.15m; 06, 0.30m x 0.10m].

3.4.6 The southern half (*c.* 1.30m north-south) of the trench, when cleaned to the same depth below concrete as the northern half, revealed a linear feature [cut 17] filled by mid-brown clay-loam [18] that was indistinguishable from the ploughsoil [02], and into which the L-shaped linear feature in the north-west corner ran and merged. In the south-east corner of the trench an area of cobbles [09] *c.* 1.20m north-south x *c.* 0.80m east-west was revealed at this level. A *sondage* was excavated by machine to the west of this cobbled area, to investigate the depth of [18] and confirm whether [03] was subsoil clay.

3.4.7 ***Investigation of the cut features:*** the eastern terminal of the feature filled by 07 was investigated by hand using an axial cross-section (Figs 4 and 8). This feature was found to continue below the north baulk, and was clearly represented more than one phase of use. The edges of two cuts were clearly defined in the subsoil clay [03]. A near-vertical-sided cut [15], *c.* 340mm deep contained a primary fill, *c.* 50mm deep, of redeposited orangey brown pebbly gravel [13]. This was overlain by compacted, re-deposited grey-brown clay and mid-brown clay-loam [12], containing a few daub fragments. (This fill was damaged by the concrete-breaker) Fill [12] was cut by a later feature [16], *c.* 270mm deep, the boundary being an overhanging cut (Fig 8), filled by the mid to dark brown clay-loam [07], visible on the surface, which contained *c.* 2% carbon in flecks.

3.4.8 At the recommendation of Peter McCrone, the Planning Officer (Archaeology) with LCAS, no further parts of the [15 / 16] feature were cross-sectioned. ***See Section 4.1.8 for discussion of the interpretation of this feature.***

3.4.9 The feature in the south-east corner of the trench, containing cobbles [09] and the altar RF 01, and the wide linear feature [17], proved difficult to excavate and interpret within the time limitations of the evaluation. The north edge of cut feature [17] was fairly well defined by the boundary between subsoil clay [03] and the mid brown clay loam fill of linear feature [17], which was indistinguishable in the baulk sections from ploughsoil [02]. The horizontal boundary between the largely stoneless [18] and cobbles [09] in a matrix of predominantly grey with 20% red-brown mottles, was clearly defined, [18] having a maximum depth of 130mm. These cobbles had a maximum dimension of *c.* 150mm. The limit of cobbles [09] to the west was also well-defined in plan, but much less so in section. The complete absence of artefacts, and carbon and daub flecks in the soil matrix exacerbated the difficulty / impossibility of determining a cut in the upper part of the south baulk section, within the confines of the *sondage*. In this section (Figs 4 and 9), at a depth of *c.* 0.45m, a near-vertical boundary was apparent, between cobbles [09] and a grey gravely clay [14], the latter overlying a pebbly yellow-grey clay [11], with some small cobbles to 100mm. From comparison with the western section through linear feature [17], it is suggested that [14] is a lower fill of the cut feature [10], while [11] is a subsoil horizon underlying [03].

3.4.10 The [09] / [03] boundary to the north, the limit of excavation within the upper part of cut feature [10], appears to dip by *c.* 45°, while the [14 / 11] boundary below this appears to be vertical, from the small sample seen. It is apparent that the south and west edges of feature [10] lie within the evaluation trench, but that the feature is larger than the *c.* 1.20m diameter seen, by an unknown extent to the south and east.

3.4.11 ***The Roman altar (Figs 9-16):*** the altar fragment RF 01 among cobbles [09] was found angled at *c.* 45° to the vertical, with its broken-off top pointing downwards to the north, inscribed face downwards to the north-east, and base upwards. Its base was exposed by the machine removal of concrete [01] and ploughsoil [02] and, regrettably, some damage to the un-inscribed but moulded rear of the base was sustained during the excavation of the *sondage* at this time. ***An interim report on the altar is presented inSection 3.6, below.***

3.4.12 Here again, at the recommendation of Peter McCrone, the Planning Officer (Archaeology) with LCAS, feature [10] was only excavated to sufficient depth to remove the altar, and no attempt was made to remove the underlying fill [14]. This was because the depth reached, 0.620m below the concrete floor of the garage, was greater than was likely from damage during the proposed development, excluding pile-driving. ***See Section 4.1.5-7 for discussion of the interpretation of this feature.***

3.5 The finds

3.5.1 A total of 43 fragments of artefacts and ecofacts was recovered during the excavation. The material was in fair condition but, with the exception of the Roman stone altar fragment, was in the form of very small fragments and, as is common in excavations at Ribchester, the few sherds of Roman pottery had been softened by the prevailing soil conditions. That the material survived only in small fragments, and was quite abraded, suggests a considerable extent of medieval and post-medieval agricultural activity.

3.5.2 The few sherds of Roman pottery were all recovered from the upper fill [07] of the probable post-trench, while the medieval or early post-medieval ceramics were exclusively from the thin horizon of ploughsoil [02] overlying this feature. Curiously, no artefacts of any period were found in association with the Roman altar, making the dating of its deposition impossible.

3.5.3 ***Finds summary***

Context Number	R-B Building materials	Samian	Roman coarsewares	Iron / slag	Burnt Bone	Medieval / early post-med ceramics
02	2 small	-	-	-	-	6
07	7 small		3 small	1 slag	1	-
09	-	-	-	-	-	-
12	4 small		-	-	1	-
Grand totals	13		3	1	2	6

Context Number	Post-med Clay pipe	Post-med Glass	Post-med All ceramics	Charcoal	Worked stone	TOTAL from Context
02	-	1	-	1	1 ?	11
07	-	-	-	7	2 ?	21
09	-	-	-		1 Roman altar 4 ?worked stone	5
12	-	-	-	1	-	6
Grand totals		1		9	8	43

3.5.4 ***Finds comment:*** *Roman ceramics.* The three sherds (none more than 15mm maximum dimension) were undiagnostic body sherds. All three were of partly reduced, partly oxidised fabric, with one grey and one orange/red face. One sherd was spalled (split in a plane). Possible date: early second century.

3.5.5 *Iron slag:* small smithing bun, diameter *c.* 35mm

3.5.6 *Burnt bone:* very small fragments, 5-15mm maximum dimension

3.5.7 *Roman building materials:* small fragments, 10-20mm, of brick or tile, and daub

3.5.8 *Medieval or early post-medieval ceramics:* 2 x body fragments and 1 x rim sherd, hard, fine, incompletely reduced fabric with inclusions to 0.5mm, traces of green glaze on one sherd. Possible date: twelfth to fourteenth century. 2 x body fragments, sandy-gritty largely un-reduced fabric with mostly orange surfaces. ?Cooking pot? Twelfth-fourteenth century

3.5.9 *Worked stone:* with the exception of the altar all the worked stone is very questionable. One piece from [09] is of a soft ?sandstone that appears rubbed (?whetstone), the others are chert or poor quality flint, which is ubiquitous at Ribchester, and is occasionally found to have been worked in the Mesolithic or Neolithic periods.

3.5.10 *Soil sample:* a soil sample (1 bag) was taken of [07], for possible sieving for small artefacts, and flotation for charcoal.

3.6 The Roman altar (Figs 9-16)

Interim report by Dr David Shotter, Department of History, University of Lancaster

3.6.1 The lower portion of an altar was recovered from a pit in which it had evidently lain face-down; there was no obvious means of dating the pit, and the excavation was too confined in extent to discover whether the upper portion of the altar was lying nearby. In view of the probable weight of the complete altar, it is unlikely that it had been moved far from where it had originally stood. This highlights the possibility that the altar's findspot was close to a temple where it will have been an item of interior or exterior 'furnishing'.

3.6.2 The altar was made from gritstone and, to judge from the irregularity of its surviving dimensions, was rather crudely manufactured. The rear and right side of the altar had suffered considerable damage. The base was sub-rectangular in shape, measuring 360mm (front) x 360mm (right side) x 360mm (back) x 330mm (left side); the base stood 150mm in height. Above the base were convex mouldings - two at the front and three on the left side; the moulding to the rear and to the right side were damaged /absent.

3.6.3 The lower moulding measured 360mm (front) x 320mm (left and right side), and was 6mm in height; the upper moulding was 360mm (front) x 290mm (left side), and was 60mm in height at the front, and 75mm on the left side. There was a third upper moulding on the left side, which was 200mm in length and 60mm in height. The altar was thus tapering upwards. The surviving portion of the shaft had a maximum height of 210mm above the base and mouldings, with a frontal width of approximately 330mm, shrinking to an estimated 300mm above the side mouldings. From front to rear, the shaft survived to a maximum of 230mm. There was no extant decoration on the altar sides or rear.

3.6.4 Parts of the final three lines of text were visible:

L Λ I M [Line 1

M I Λ · S I [Line 2

V · S · L · L · M Line 3

3.6.5 It is surmised that possibly three letters have been lost at the right side of Line 1, two in Line 2, whilst Line 3 is complete except for the fracturing of the right-hand side of the final 'M'. It is hardly possible to reconstruct the text beyond:
[LAIM[ ] / MIA SI[ ] / V(otum) S(olvit) L(ibens) L(aetus) M(erito)
The first two lines presumably containing a name and a rank, whilst the final line is a version of the common formula signifying fulfilment of a vow made at the time that a request was made of the deity concerned. There is unfortunately nothing surviving in the text to offer a clue as to which deity this may have been.

3.6.6 The name of the individual is now beyond recovery, although the *cognomen* may be such name as [LA]MIA. The last two letters of Line 2 presumably conceal the rank of the dedicator, which in this case might be either SI[G(N)] for *Signifer* ('standard-bearer') or SI[NG} for *Singularis*; the *equites singualares* were picked from cavalry units to act as mounted bodyguards. The final line is a standard formula, meaning 'he willingly, happily, and deservedly fulfils his vow'.

3.6.7 The altar bears no obvious means of dating, but probably belongs to the late-second or early-third centuries.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Archaeological discussion

4.1.1 ***Desk-based assessment:*** brief study of reports on adjacent archaeological excavations (see paras 3.3.1-4, above) indicated the high potential of the 8A Greenside site. All known developments within a *c.* 120m radius, where archaeological monitoring of works took place, have produced archaeological deposits of Roman date. The Scheduled Monument status of the adjacent open plot, and the overlap with the development site of the SAM boundary, warn that these deposits are perceived to be of Nationally Important archaeological significance. All parts of the presumed extent of the Roman fort and extra-mural settlement of *Bremetenacum* at Ribchester that can be scheduled as Ancient Monuments under current legislation and common practice appear to have been so designated.

4.1.2 However, the exact nature, extent, layout, and development over time, of the extra-mural settlement is only beginning to be understood, and the limited extent to which comparable settlements, especially in the North West of England, have been excavated makes it very difficult to predict what type of archaeological deposits and structures may be found in any given development site. This understanding can never be complete, in that much of the extra-mural settlement has been built upon over a period of over 200 years, in many areas resulting in the Roman archaeology now being badly damaged or destroyed, and being unavailable for study except when development is proposed, as here.

4.1.3 The bath house *c.* 120m to the south-west of 8A Greenside, and the Access Road site to the north of it are the closest-known major Roman buildings, but the presence of remains of less substantial structures found during works at Ribblesdale View, Greenside, Feolin and Lynton, and (probably) the River View sites (all on Greenside) confirms the density of archaeological deposits in the immediate area.

4.1.4 ***Field evaluation:*** the trial trench confirmed that archaeological deposits were extant within the development site, in the form of cut features filled with deposits, some of which produced dateable Roman artefacts. In the context of the small evaluation trench, the interpretation of the features recorded must remain uncertain, a familiar situation in archaeological evaluation procedures. This is all the more frustrating since the find of a large fragment of a Roman altar strongly suggests that a temple lay in the vicinity, and possibly that the fragment of a timber building seen related to such a temple. Whilst the archaeological deposits themselves may, to the untrained eye, look insubstantial, and the artefactual assemblage was otherwise small, the deposits were in good condition with a fortuitous lack of truncation when the garage was built in the 1930s. The presence of this altar serves to remind us that the site may have considerable archaeological significance, and that avoidance of damage to these and adjacent deposits during the development is of high priority, any likely damage being fully mitigated by appropriate levels of professional recording.

4.1.5 It is very likely that the feature [10] in which the altar was found was a pit, cut into the subsoil clay [03, overlying 11], but neither the shape, dimensions, nor depth of the pit are known, beyond stating that the feature is larger than the *c.* 1.20m diameter seen, by an unknown extent to the south and east. The lack of dating evidence, indeed of any artefacts or ecofacts, in the pit fill - apart from the altar itself, which Dr Shotter considers may be of late-second or early-third-century date - leaves open to debate the matter of when the altar was buried. It is not known whether the pit was dug for the specific purpose of burying the altar, or for another purpose altogether, nor how long an interval elapsed between its excavation and filling.

4.1.6 Scenarios that suggest themselves include:

1. intentional and careful burial of a superseded altar, face-down, in a newly-dug pit, as part of a formal re-dedication or other ritual. The presence of cobbles, which may have been brought from the Duddel Brook, or more likely the River Ribble, may or may not be significant. There are perhaps slight similarities to the systematic picture seen at Maryport, where altars were dedicated annually to *Iuppiter Optimus Maximusque* (*IOM*, Jupiter Best and Greatest) around a parade-ground, and periodically buried face-down in large pits in deposits of sand (Breeze and Dobson 1978, 260).
2. Similar to 1., but ritual burial of a damaged and disused altar, possibly found in the river or brook, to judge from the level of damage (the writer is grateful to Peter McCrone of LCAS for this suggestions).
3. The altar may have no more significance than as a piece of rubble, buried along with cobbles at some unknown later date in order to fill up a pit, whose original function is unknown, since it has not been emptied.

4.1.7 The relationship of the pit [10] containing the cobbles [09] and altar, to the linear feature [17] is unclear, but the latter appears to be a shallow (*c.* 130mm deep) gully, or perhaps the top of a longer slope to the south, filled by a soil [18] indistinguishable in section or plan from ploughsoil [02], and therefore probably of post-medieval date, truncating the cobble fill [09] of pit [10], and also the south end of fill [07] in cut feature [15 / 16].

4.1.8 The L-shaped cut feature [15 / 16] in the north-west corner of the evaluation trench is very likely to be a post-trench, the construction trench for a timber building, which would probably have contained substantial wall posts with wattle and daub infill, giving rise to the burnt clay deposits, which may be burnt daub (not sampled). The carbon may be from posts or roofing thatch. We again know little of the dimensions of the structure, but the presence of a terminal to the feature shows that it measured at least 2.0m east-west, parallel to the north baulk of the trench, by *c.* 1.2m of the west baulk. The post-trench was at least 0.55m wide, and extended under the north baulk by an unknown distance. It is not known where the inside and outside of the building were, nor whether the area east of the trench terminal was part of a structural gap (eg an entrance).

4.1.9 In particular, we therefore do not know whether the pit [10] containing the altar lay inside or outside the structure represented by post trench [15 / 16].

4.1.10 ***Temples and deities:*** 'The range of Romano-British buildings which can be associated with cults is very broad ...' and ' ... the plan of a temple in isolation is almost certainly misleading - they should normally be seen as components of a religious zone' (de la Bédoyère 1991, 166). Also, the temples discussed by de la Bédoyère (1991, 166-208) are mostly major public buildings. ***No building so far found at Ribchester is currently interpreted as a temple.***

4.1.11 It is unfortunate that the deity dedication on the 8A Greenside altar is lost, and the name and rank of the donor either not recoverable or ambiguous (see paras 3.6.4-6, above), but the find nevertheless joins a small group of such inscriptions from Ribchester. Of the 18 inscriptions on stone from Ribchester known to the present writer, at least eight relate to temples. The temple re-dedication slab RIB 587, interpreted as relating to the cult of Jupiter Dolichenus was found re-used in the *praetorium* (commander's house) of the fort. Of the other altars recorded in RIB whose dedications survive, all were found before the advent of scientific excavation and their findspots are unknown. RIB 583 is dedicated to the Romano-Celtic 'fused' deity Apollo Maponus (Shotter 1997, 74), RIB 584 and 585 are dedicated to Mars, and RIB 586 is to the Mother Goddesses, as is the 1982 find from Church Street (Hassall and Tomlin 1994, 298).

4.2 Assessment of the impact of the development

4.2.1 ***The desired outcome is for there to be no significant impact on the archaeological deposits and structures described above, and those in adjacent parts of the development site.*** Lancashire County Council's strategy for *Heritage conservation in Lancashire* (LCC 1999), which embraces the Government's Planning Policy Guidance notes on *Archaeology and Planning* (PPG 16; DoE 1990) and *Planning and the Historic Environment* (PPG 15, DoE and DNH 1994), takes as its baseline the statement in PPG 16 (para 8) that:

> 'Where nationally important archaeological remains, whether scheduled or not, and their settings, are affected by proposed development, there should be a presumption in favour of their physical preservation.'

4.2.2 Furthermore, PPG 16 and the LCC (1999, Appendix 1) advocate:

> '... the use of appropriate policies in local plans and their implementation through development control as the key to the future of the vast majority of archaeological sites and historic landscapes ... in circumstances where the preservation of archaeological remains on a site is not justified ... it would be entirely reasonable for the planning authority to satisfy itself before granting planning permission, that the developer has made appropriate and satisfactory provision for the excavation and recording of the remains'.

That is to say, that a programme of archaeological excavation an/or watching briefs has been designed and contracted in accordance with a specification agreed with the local planning authority (RVBC) and archaeological curator (LCAS).

4.2.3 ***Each development within Ribchester village which reveals archaeological deposits or structures has the potential to add considerably to our knowledge and understanding of the extra-mural settlement, but also to permanently damage or destroy part of that settlement.***

4.2.4 Taken as a whole, the fort and extra-mural settlement at Ribchester are perceived to be of Nationally Important archaeological significance. The Scheduled Monument status of the adjacent open plot, and the overlap with the development site of the SAM boundary, indicate that English Heritage and LCAS may expect the developers and their agents to act with even greater care than might usually be the case in Ribchester to ensure compliance with the national and county policies restated above (paras 4.2.1-2). ***The presumption is therefore that development on sites of archaeological significance will not generally be permitted without active minimisation of damage to the archaeological deposits, and mitigation measures where damage is unavoidable. But conversely archaeological excavation of sites will not take place needlessly, if a construction strategy can be devised which reduces or negates the need for destruction of archaeological deposits.***

4.2.5 The developer will normally be expected to fund all such archaeological provision, including on site watching briefs and excavations, a post-excavation assessment of the artefact assemblage and archive, all such further analysis as that assessment reveals to be appropriate, and publication in appropriate media (eg academic journal article) of the results. LCAS, and in this instance English Heritage (since the site lies adjacent to/partly within a SAM) must be consulted in advance of works, throughout the archaeological process.

4.2.6 Taking an economic standpoint, it will also generally be more cost effective to use a method of construction which requires less archaeological excavation, or none at all, of the deposits on a site, than to excavate larger areas to the required archaeological standards in advance of destruction.

4.2.7 *Construction options:* **the archaeological contractor is neither a qualified structural engineer, nor an architect, nor a local government building control officer: the developers (the Clients or their successors in tenure) are recommended to seek advice from these and other professionals before committing to a particular foundation design strategy.**

4.2.8 ***Re-using the garage footprint:*** a housing development in the Ribchester *vicus* in 1994, adjacent to 11 Fort Avenue, (now called 1 Apple Orchard), utilised a trenched ring beam supporting a thick concrete raft, and previous developments generally utilised deep foundation trenches. However, a development adjacent to 28 Water Street in 1996 was a situation with more similarities to 8A Greenside. There, an eighteenth or nineteenth-century stone-built barn/workshop was demolished, the foundations grubbed-out by machine, and a new dwelling built largely on the same footprint, the concrete and cobble floor within the building being sealed below new concrete. Archaeological watching brief provision was thus limited to recording of the sides of the old foundation trenches, and the new foundations for an adjoining garage. Whilst this methodology made for great difficulties in the interpretation of the archaeological results, it nevertheless complies with the spirit of national and regional planning advice concerning archaeology.

4.2.9 *Concrete raft supported on mini-piles:* during a number of recent developments at Ribchester, such as Pope Croft in 1997 (in the *vicus;* P. McCrone, LCAS, pers comm), and in 2000 within the fort at Churchgates, for the new access to the fort granaries, and for the museum extension (all three projects: present writer), the construction strategy adopted was a supported concrete raft, the support coming from a perimeter reinforced-concrete beam, resting on 150mm-diameter mini-piles at centre-to-centre spacing of (say) 2.0m, and driven to depths of between 7 and 12m. The potential circle of damage of piles is up to 50% more than the surface area of the piles themselves, and the method has the further disadvantage of the impossibility of archaeologically monitoring that damage as it is taking place, but the method has gained LCAS and English Heritage support as the construction method of choice on sites where serious damage to archaeological deposits would result if any other construction methodology were to be adopted.

4.2.10 *Piling:* the case for and against piling at Ribchester has been reviewed by the present writer in reports to LCAS on the Roman Granaries, and new garage at Churchgates evaluations (Neil 2000a and b), and will not be restated in detail here. Briefly: 'cast *in situ*' piles, with permanent metal casing, are preferably, and these should be bored by percussion rather than auguring. Obstructions should be cored, to avoid the situation where strata of potential archaeological importance have to be damaged during removal of the obstructions by machine excavation. Whilst accepting that these requirements may increase costs, by these means it should be possible to restrict the need for archaeological provision throughout piling works, and minimise damage to the archaeological deposits to *c.* 50% more than the diameter of the piles. Continuous-flight augured piles, in particular, should be avoided, since these have been identified as among the most damaging by Ove Arup and Partners (1991, 51), in a study sponsored by York City Council and English Heritage. It should be stressed that the Ove Arup study concentrates on major city-centre developments, where piles are of between 450m and 1200mm diameter. No studies of the effects on archaeological sites of mini-piles (eg 150mm diameter) have been located by the present writer.

4.2.11 The reluctance of English Heritage to endorse the use of piling in *all* instances centres on the following potential objections. Oxley (1996, 53) sets out four possible effects of piling on archaeological deposits, viz. that the process of piling can, under certain circumstances:

1. introduce oxygen into anoxic deposits,
2. introduce chemical contaminants which may adversely affect deposits,
3. lower the water table and thus dry out highly significant waterlogged archaeological deposits, and
4. destroy more than 5% of the archaeological deposits of the site, beyond which percentage the 'legibility' of the archaeology is considered to be compromised.

4.2.12 In response to these points, it should be noted that, at Ribchester, especially in the *vicus*, the available evidence suggests that we are most *unlikely* to be dealing with the *deep* waterlogged, anaerobic, stratigraphy that is sometimes present in urban deposits, (eg York, Lincoln, Dublin, or London). Rather, as the 1989-90 Ribchester Graveyard Extension excavations (Buxton and Howard-Davis 2000) revealed, there *may* be well-preserved single building foundations consisting of larger timbers, smaller intact wooden structures, such as posts, wickerwork, or relatively shallow deposits containing wooden, leather, and other organic objects, and environmental-archaeology-rich deposits.

4.3 Recommendations

4.3.1 ***Even if the development does not take place*** the evaluation project must be archived and published, as costed in the Project Design. A limited amount of further research into the Roman altar is appropriate, has been discussed with LCAS, and has been commissioned by the present writer from specialists. No further cost implications are expected ***at present***. This further work should comprise:

1. Study of the altar under studio-lit conditions, to confirm the reading of the less clear letters, and to determine whether there is a partly erased earlier inscription overlain by a re-use.

2. Limited desk-based study to determine the likely name of the donor, which survives in part, and whether any such likely individuals have been previously recorded in Britain. Use of I. Kajanto *Latin cognomina*, Helsinki, 1965 is required for this, and Dr D Shotter has applied for a copy through inter-library loans.

3. Production of a publication-quality scale drawing, to be offered with a short report to the journal *Britannia*. Copy deadline early April 2002. Mr B J N Edwards has been contracted to do this.

4.3.2 ***Archaeological provision during development:*** the evaluation confirmed that archaeological deposits of potentially national significance survive immediately below the present concrete garage floor. In order to comply with the letter and spirit of planning advice relating to nationally significant archaeological deposits, ***the Clients must consider carefully the various construction methodologies available to them, and seek to reduce or if possible negate the extent to which new disturbance takes place of these archaeological deposits, during construction of the new dwelling's footprint, interior partition walls, and in the adjacent areas of the forecourt and rear garden/patio.***

4.3.3 Regrettably, it was found during excavation that the heavy concrete-breaker drill-bit caused depressions (up to 200mm deep) in the underlying archaeological deposits. Therefore, ***it is recommended that, if further areas of the concrete slab have to be removed, a road saw be used instead of a concrete breaker, which is clearly too powerful for the task.***

4.3.4 If the engineering solution of mini-piles supporting a concrete raft is contemplated, as used on other recent Ribchester developments, it is advised that ***'cast in situ' piles, with permanent metal casing, are greatly preferable, and these should be bored by percussion rather than auguring. Obstructions should be cored,*** to avoid the situation where archaeological strata have to be damaged during removal of obstructions by machine excavation.

4.3.5 ***From discussions to date, it seems likely that a concrete raft, emplaced above the present concrete floor of the new dwelling and supported on piles below the perimeter and internal walls, is the appropriate construction strategy. The duration of an archaeological watching brief (and the possibility of an enhanced provision - i.e. partial excavation), if a piling strategy were to be adopted, depends on (among other factors):***

1. The depth of the foundations for the present garage, and at what stage piling takes place. For example, there may or may not be archaeological deposits preserved below the present foundations (as opposed to subsoil only), and piles could be driven through the old foundations, or emplaced after their removal. In the latter case, the base of the foundation trenches, in addition to the sides (3, 4, below), may require to be recorded archaeologically.

2. The extent, if any, of removal required for the old concrete garage floor, forecourt, and concrete to the west of the proposed dwelling, which were shown by the evaluation to directly overlie significant archaeological deposits. Any such removal may, at LCAS / EH's discretion, require archaeological recording of underlying deposits, followed by laying of a geotextile membrane, before re-burial.

3. Whether the diesel tanks are to be removed or made inert by other means. It is not known whether they are surrounded by emplaced gravel or dug directly into the buried archaeological deposits, thus requiring archaeological recording if removed.

4. Similarly, if the existing drain courses are re-used, with new piping, LCAS / EH may consider it appropriate to record the trench sides. The same applies to all other utility trenches.

5. If piling is required in the interior of the proposed dwelling, LCAS / EH may consider it appropriate to require selective archaeological excavation in advance of piling. The positions of the internal north-south and east-west room division walls, as currently proposed, cut all of the archaeological features revealed during the evaluation. ***The architect has advised that it may be possible to position piles, especially within the interior of the dwelling, in such a way as to avoid or minimise damage to archaeological deposits. In the archaeological contractor's experience, this is possible if narrow (500-600mm wide) trenches are excavated to the top of archaeological deposits prior to the emplacement of piles.***

5. BIBLIOGRAPHY

5.1 Primary sources

Lancashire Record Office (LRO), Preston

DDX 547/2 Annotated 1956 6": 1 mile maps, to accompany Learoyd, D H, 1962 *Report to the curator of the Ribchester Museum on the course of the River Ribble during the Roman occupation of the fort at Ribchester*, unpubl report, June 1962 (DDX 547/1)

5.2 Cartographic sources

Inst Geol Sci, 1978 *Liverpool Bay, Sheet 53°N - 04°W, 1:250,000, Solid Geology*, Southampton, Institute of Geological Sciences.

Lawes, 1983 *Soils of Northern England, 1:250,000*, Harpenden, Lawes Agricultural Trust (Soil Survey of England and Wales)

OS, 1893 *1:2500 Series: Lancashire Sheet 54.14*, 1 edn. Southampton (LRO)

United Utilities, 2001 *Extract from map of public sewers, 1:1250*, Southampton

5.3 Secondary sources

Arup, 1991 *York development and archaeology study*, Ove Arup and Partners, in association with Bernard Thorpe, for York City Council and English Heritage, Manchester

Bédoyère, G de la, 1991 *The buildings of Roman Britain*, London

Breeze, D J, and Dobson, B, 1978 *Hadrian's Wall*, 2 edn, Harmondsworth

Bridge, D McC, 1989 *Geology of the area around Longridge and Ribchester*, British Geological Survey, Onshore Geology Series, Technical Report **WA/89/66**, Keyworth, Nottingham

Buxton, K, 1996 Roman Ribchester, in Graystone, 1996, 11-18

Buxton, K, and Howard-Davis, C, 2000 *Bremetenacum: excavations at Roman Ribchester 1980, 1989-90*, Lancaster Imprints Series **9**

Camden, W (ed Gibson, E) 1695 *Britannia*, London, facsimile repr 1971, London

Dixon, N, 1975a Reports of excavations: Ribble Archaeological Society. Greenside. Ribchester 1974-75, *Lancashire Archaeol Bull*, **1(1)**, 9-11

Dixon, N M, 1975b Reports of excavation of Greenside, Ribchester 1974-75, *Ribble Archaeol*, **8**, 4-5

DoE, 1990 *Archaeology and planning*, Planning Policy Guidance Note **16**, Nov 1990, London, Department of the Environment

DoE and DNH, 1994 *Planning and the Historic Environment*, Planning Policy Guidance Note **15**, Sept 1994, London, Department of the Environment, and Department of National Heritage

Edwards, B J N, 1971 Observations in Greenside (1), *Ribble Archaeol*, **3**, 5

Edwards, B J N, 1981 *Ribchester, Lancashire*, Ribchester Museum Trust

Edwards, B J N, 2000 *The Romans at Ribchester: discovery and excavation*, Centre for North-West Regional Studies, University of Lancaster

Edwards, B J N, and Webster, P V (eds), 1985-8 *Ribchester Excavations*, 3 vols, Cardiff

Edwards, W, Trotter, F M, and Wray, D A, 1954 *The Pennines and adjacent areas*, British Regional Geology 8, 3 edn., 8 impr. 1993, London

Ekwall, E, 1922 The place-names of Lancashire, *Chetham Soc*, New Ser 81

Graystone, P, 1992 *Walking Roman roads in Bowland*, Centre for North-West Regional Studies, University of Lancaster

Graystone, P, 1996 *Walking Roman roads in the Fylde and the Ribble Valley*, Centre for North-West Regional Studies, University of Lancaster

Haselgrove, C, 1996 The Iron Age, in Newman, Richard (ed) *The archaeology of Lancashire: present state and future priorities*, Lancaster, 61-73

Hassall, M W C, and Tomlin, R S O, 1994 Roman Britain in 1993: inscriptions, *Britannia*, 25, 293-314

Hodge, A C, and Ridge, J F, 1997 *Ribchester: a short history and guide*, 2 edn, Preston

IFA, 1997a Ferguson, L M, and Murray, D M, *Archaeological documentary archives*, Institute of Field Archaeologists Paper 1, Manchester

IFA, 1997b *By-laws of the Institute of Field Archaeologists: code of conduct*, 1985, rev 1988, and 1993-7, Reading

IFA, 1999a *Standard and guidance for archaeological field evaluation*, Reading, 1994, rev 1999

IFA, 1999b Handley, M, *Microfilming archaeological archives*, Institute of Field Archaeologists Paper 2, Reading

IFA, 2001 *Standard and guidance for the collection, documentation, conservation, and research of archaeological materials*, Reading, Institute of Field Archaeologists

Jones, G D B, 1971 Report of the summer meeting of the Royal Archaeological Institute at Lancaster in 1970: Ribchester Roman Fort, 9 July 1970, *Archaeol Journ*, 127 (for 1970), 277-9

Kajanto, I, 1965 *Latin cognomina*, Helsinki (copy being sought through inter-library loans)

LCAS, 2001 *General conditions for appropriate Archaeological Contractors in Lancashire*, Preston, Lancashire County Archaeological Service, Lancashire County Council Environment Directorate

LCC, 1999 *Heritage conservation in Lancashire. Sustaining the historic environment: a strategy and plan for the future*, Preston, Lancashire County Council

Learoyd, D H, 1962 *Report to the curator of the Ribchester Museum on the course of the River Ribble during the Roman occupation of the fort at Ribchester*, unpubl typescript report, June 1962, copy in LRO DDX 547/1 (annotated 1956 6": 1 mile maps DDX 547/2)

LUAU, 1998 *Lancashire extensive urban archaeological survey: assessment report*, Lancaster University Archaeological Unit unpubl. report for Lancashire County Archaeological Service, January 1998

Margary, I D, 1967 *Roman roads in Britain*, rev edn, London

Neil, N R J, 2000a *New retaining walls and improvement to access path for Roman fort granaries, Ribchester: report on archaeological evaluation in November 1999*, unpubl client report to Ribchester Museum Trust

Neil, N R J, 2000b *New garage for Churchgates, Riverside, Ribchester: report on archaeological evaluation*, unpubl client report to Mr and Mrs P Openshaw, April 2000

Newman, Rachel, 1996 The Dark Ages, in Newman, Richard (ed) *The archaeology of Lancashire: present state and future priorities*, Lancaster, 93-107

Olivier, A C H, 1987 Postscript: the nature of the Ribchester civil settlement, in Edwards and Webster (ed), 2, 117-26

Olivier, A C H, and Turner, R C, 1987 Excavations in advance of sheltered housing accommodation, Parsonage Avenue, Ribchester, 1980, in Edwards and Webster (eds) 2, 55-80

Oxley, J, 1996 Planning and the conservation of archaeological deposits, in Corfield, M, Hinton, P, Nixon, T, and Pollard, M (eds), 1996(?) *Preserving archaeological remains in situ: proceedings of the Paris conference of 1-3 April 1996*, 51-4, Museum of London Archaeology Service and University of Bradford [date of publication not known] [copy from LCAS]

RIB Collingwood, R G, and Wright, R P, 1965 *The Roman inscriptions of Britain, 1 Inscriptions on stone*, Oxford (inscriptions cited by ref no, eg RIB 583)

Richmond, I A, 1945 The Sarmatae, *Bremetannacvm Veteranorvm*, and the *Regio Bremetennacensis*, *Journ Roman Studies*, **35**, 15-29

Rivet, A L F, and Smith, C, 1979 *The place-names of Roman Britain*, repr 1981, London

Rothwell, M, 1990 *Industrial heritage: a guide to the archaeology of the Ribble Valley*, [?]Accrington

Shotter, D, 1997 *Romans and Britons in north-west England*, 2 edn, Univ of Lancaster, Centre for North-West Regional Studies

Shotter, D, 1999a Roman north-west England: the process of annexation, *Trans Hist Soc Lancashire Cheshire*, **148** (for 1998), 1-26

Shotter, D, 1999b Cerialis, Agricola, and the conquest of northern Britain, *Contrebis*, **24**, 3-8, Lancaster Archaeological and Historical Society

VCH Farrer, W, and Brownbill, J (eds), 1908-14 *Victoria history of the county of Lancaster*, 8 vols, London

Witherington, J H S, 1987 The Access Road site 1977, in Edwards and Webster (eds) 2, 85-102

APPENDIX 1
LANCASHIRE COUNTY ARCHAEOLOGY SERVICE
PROJECT BRIEF

Land adjacent to 8A Greenside, Ribchester

Brief for an Archaeological Evaluation

Prepared by:
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BRIEF FOR AN ARCHAEOLOGICAL EVALUATION EXCAVATION REQUIRED BY A PLANNING PROPOSAL

Location: Land adjacent to 8A Greenside, Ribchester

Proposal: Demolition of existing building and replacement with two-storey building.

1. Summary

An application for planning permission has been submitted to Ribble Valley Borough Council for the demolition of the existing garage at 8A Greenside, Ribchester and its replacement with a two-storey dwelling. Planning Application Number 3/01/0541/P. The application site lies partly within the area of the Scheduled Ancient Monument at Ribchester and there is high potential for archaeological deposits relating to the Roman occupation of Ribchester being present on the site.

Little is known of their extent or of their state of preservation and Lancashire Archaeology Service has advised that the archaeological implications of the proposal cannot be adequately assessed on the basis of currently available information. It has, therefore, been recommended that an archaeological field evaluation should be carried out in order to obtain further information, which can be used to formulate a mitigation strategy for the site.

2. Site Location and Description

2.1 The site lies at NGR SD 6516 3531 and covers an area of approximately 250 square metres. It is situated on the western side of Greenside, between the properties numbered 7 and 8A. The site is currently occupied by a large garage building, which covers most of its area. The western portion of the site (approximately 60 square metres) lies within the area of the Scheduled Ancient Monument (SAM NO 14255, Lancashire Sites and Monuments Record No PRN 4210). Schedule Monument Consent will be necessary for any evaluation excavation within the area of the SAM and advice on the legal requirements for this evaluation (affecting the setting of the SAM) should be sought from the English Heritage Inspector of Ancient Monuments, Mr Andrew Davison, Canada House, 3 Chepstow Street, Manchester, M1 5ER, Tel. 0161 242 1400.

3. Planning Background

3.1 A planning application for the proposed development has been submitted to Ribble Valley Borough Council. Following the normal procedure for assessing planning applications and providing advice on their archaeological implications the Lancashire County Archaeology Service (LCAS) have advised that the current state of knowledge about the archaeology of the site is insufficient to make a properly informed decision about the potential impact of the development on the archaeology.

3.2 LCAS has therefore advised that an archaeological evaluation of the site should be carried out to provide sufficient information to allow an informed decision to be made. This **recommendation follows the advice given by central government as set out in *Planning Policy Guidance on Archaeology and Planning* (PPG16) issued by the DoE.**

4. Archaeological Background

4.1 Ribchester has long been known as the site of a Roman fort established in the 1st century AD and extensively remodelled in the 2nd. The fort had, on its northern side, what appears to have been a defended annexe containing workshops and probably the parade ground of the fort and, beyond the annexe, a civilian settlement the area of which has produced evidence for buildings, yards and streets, a bath house (now at least partially displayed to the public) and a cremation cemetery. It is also probably that part of the settlement was occupied by discharged soldiers, hence the recorded name *Bremetennacum Vetanorum*. The boundaries of the settlement are uncertain but it is possible that Boyce's Brook, which runs parallel to Greenside and about 35 metres east of the site, was the eastern limit of the built up area of the settlement.

4.1 Further details of sites can be obtained from the Lancashire Sites and Monuments Record quoting the PRN.

5. Requirement for an Evaluation

5.1 The proposed development, in its current form, could damage or destroy any archaeological remains which may be present on the site. It has therefore been recommended that an archaeological evaluation should take place to obtain further information on the presence and preservation of any archaeological deposits before any decision is reached as to whether planning consent should be granted on this or any modified proposal.

6. Objectives

The objectives of the evaluation are to gain information about the archaeological resource within a given area or site, including its presence or absence, character and extent, integrity, state of preservation and relative quality, in order to make an assessment of its worth in the appropriate context.

The results of the evaluation may be used to:

- formulate a strategy for the preservation or management of any archaeological remains; and/or
- formulate an appropriate response or mitigation strategy to planning applications or other proposals which may affect adversely any such archaeological remains, or enhance them; and/or
- formulate a proposal for further archaeological investigation within a programme of research.

The evaluation will consider the whole of the area to be disturbed by the development and also those areas which are to remain undisturbed to allow for possible modifications to the proposal.

7 Schedule of Works

7.1 An archaeological evaluation of the site adjacent to No. 8A Greenside, which is the subject of Ribble Valley Borough Council Planning Application No. 03/2001/0541 should be carried out.

7.2 The site should be re-instated to a standard satisfactory to the owner/tenant

7.3 An adequate written record will be maintained of archaeological features and finds encountered.

7.4 The location of all archaeological features and finds will be indicated on a measured plan of the site at an appropriate scale.

7.5 Where appropriate, measured drawings will be made of archaeological features encountered.

7.6 An adequate photographic record of the evaluation will be prepared. This will include black and white prints with colour transparencies illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include working shots to illustrate more generally the nature of the works.

8 Reporting and archiving.

8.1 The evaluation will result in the production of a report comprising a written description of the features observed and an interpretation of their significance, together with sketch plans, drawings and photographs as appropriate. A copy of this brief, and the project design for the work, should be appended to this report.

8.2 Copies of the report will be supplied to the County Archaeological Officer and to the Lancashire Sites and Monuments Record on the understanding that it will become a public document after an appropriate period (a maximum of 6 months after the completion of the fieldwork unless another date is agreed in writing with the County Archaeological Officer). This should be provided both as paper copy and in a suitable digital form on 3.5" 'floppy' disk or CD.

8.3 The evaluation brief will result in an archive of notes, drawings and photographs. A copy of these, together with a copy of the report and any finds, will be deposited with an appropriate museum

8.4 A brief summary report of fieldwork, to appear in the Council for British Archaeology North West *Archaeology North West* should be produced, even when the watching brief encountered no archaeological deposits. This should be sent to the editor of Archaeology North West in accordance with the standard format for summary reporting, and in time for it to appear within a calendar year of the completion of fieldwork.

9 General

9.1 A written project design, detailing how the assessment is to be undertaken, the name of the project director, the proposed staffing levels and the proposed programme of work shall be produced prior to the commencement of the project. This design should

be to the appropriate IFA standard. The archaeological contractor may wish to refer to sections of this brief in the project design, rather than transcribe them. Costings shall be submitted under a separate cover to the project design.

9.2 The document entitled "General Conditions for Appropriate Archaeological Contractors in Lancashire" is in use as a model of expected practices and procedures. A copy of that document is attached as Appendix One.

9.3 The archaeological work shall be monitored by the LCAS. The archaeological contractor should contact the LCAS to discuss and arrange this monitoring.

9.4 Access to the land will be arranged by the client and the successful contractor will need to liaise to ensure that suitable arrangements are established

9.5 This brief shall not be altered without the express consent of the LCAS. It allows some flexibility of approach but deviations from the agreed project design shall be discussed and agreed in advance with LCAS. A copy of the brief on computer disc can be supplied upon request.

10 Further information

10.1 Further information and details of the proposed development can be obtained from the Agent, Mr Stuart Herd, Sunderland Peacock and Associates, Stanley House, Lowergate, Clitheroe, BB7 1AD, Tel 01200 423178

10.2 Further queries regarding this brief or the general conditions can be addressed to the Lancashire County Archaeology Service, Lancashire County Council Environment Directorate, Guild House, Cross Street, Preston, PR1 8RD, Tel. 01772 261734. Fax 01772 264201.

Appendix 1

General Conditions for Appropriate Archaeological Contractors in Lancashire

Organisations and individuals wishing to be included on the County list of Appropriate Archaeological Contractors are requested to fulfill the General Conditions below, which provide a model for best practice and professional conduct in archaeological work. Lancashire County Council will require the fulfillment of these conditions in its own contracts. Other clients are advised that it is their responsibility to satisfy themselves that their contractors meet all relevant standards.

1. Professional Standards

1.1 Contractors shall conform to the standards of professional conduct outlined in the Institute of Field Archaeologists Code of Conduct, the IFA Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, and the British Archaeologists and Developers Liaison Group Code of Practice.

1.2 Project Directors should be recognised in an appropriate Area of Competence by the IFA and the contractors should encourage as many of their staff as possible to join the IFA.

1.3 Contractors with a significant backlog of unpublished projects will not normally be included on the approved list.

1.4 Where students, volunteers or trainees are employed on a project, their use should be in accordance with IFA guidelines.

1.5 In cases of dispute, arbitration will normally be sought through the IFA or the British Archaeologists and Developers Liaison Group.

2. Finance

21. Contractors shall make available at the request of the County Archaeological Curator an audited set of recent accounts.

3. Insurance

3.1 Contractors shall hold a current certificate of Public Liability and (where relevant) Employers Liability insurance, and shall produce it at the request of the County Archaeological Curator.

4. Health and Safety

4.1 Contractors shall comply with the requirements of the Health and Safety at Work etc. Act 1974 and related legislation.

4.2 Site procedures shall be in accordance with the guidance set out in the Health and Safety Manual of the Standing Conference of Archaeological Unit Managers.

5. Project Design

5.1 Individual projects should be designed in accordance with a brief provided by the County Archaeological Curator. Before commencement of a project, Contractors should prepare a written Project Design and agree it with the County Archaeological Curator.

6. Sub-Contracting

6.1 The names of proposed Sub-Contractors should be included in the Project Design. All such Sub-Contractors shall be required to fulfil the General Conditions for Contractors.

7. Form of Contract

7.1 Before commencement of a project, the Contractor shall enter into a written agreement with the Client. Such an agreement should be in accordance with the IFA Model Contract for Archaeological Services or such other form as approved by the County Archaeological Curator.

8. Project Monitoring

8.1 The County Archaeological Curator shall be responsible for monitoring progress throughout the project.

8.2 Contractors shall provide the County Archaeological Curator with an outline programme of work, and agree with the curator any proposed modification to this programme brought about by unforeseen circumstances. It is strongly recommended that Project Designs include a contingency factor to allow for such circumstances.

9. Administrative Charge

9.1 The County Archaeological Curator reserves the right to levy a charge for project monitoring. Monitoring visits shall be costed at £50.00 per visit and the number of such visits shall be stated in the project brief.

10. Publication

10.1 Publication shall be in a form and to a timetable to be agreed on completion of the site archive and narrative. A copy of the site narrative and publication synopsis shall be lodged with the County Sites and Monuments Record.

10.2 Whilst acknowledging the need for confidentiality in some instances, archaeological information should enter the public domain as soon as possible and certainly within two years of the completion of fieldwork.

11. Archive

11.1 Before commencement of the project, arrangements should be made with the appropriate museum curator and the Lancashire County Record Office to ensure that these organisations can receive and curate the archive produced. Archive deposition should take place according to a timetable to be agreed on completion of the site archive and narrative.

11.2 The site archive, including finds and environmental material, should be conserved and stored according to the UKIC Guidelines for the preparation of excavation archives for long-term storage.

11.3 The archive (excepting the finds) should be deposited as soon as is practicable with the Lancashire County Record Office, Bow Lane, Preston and the finds stored, wherever possible, in a Registered Museum fulfilling the HBMC/MGC storage criteria with a copy of the paper archive. It may be felt more appropriate in some circumstances to store both paper archive and finds together, and this should be, wherever possible, within a Registered Museum fulfilling the HBMC/MGC storage criteria.

11.4 Any material not to be archived, such as unstable material or items to be retained by the landowner, should be fully analysed and reported upon.

11.5 A copy of the reproducible elements of the site archive should be deposited in the National Archaeological Record.

12. Acknowledgement

12.1 The collaborative role of the County Archaeological Curator shall be acknowledged in all publicity - including media releases, site displays, exhibitions and publications - arising from the project.

The role of the County Archaeological Curator is currently undertaken by:

Lancashire County Archaeology Service
Lancashire County Council
Environment Directorate
Guild House
PO Box 9
Cross Street
Preston
Lancs PR1 8RD

tel 01772 261734 fax 01772 263423

APPENDIX 2
N. NEIL ARCHAEOLOGICAL SERVICES PROJECT DESIGN (COSTS DELETED)

Former livestock haulage garage adjacent to 8 GREENSIDE RIBCHESTER Ribble Valley Borough Lancashire

Project Design for Archaeological Evaluation

September 2001

Tender invited by:
Sunderland Peacock and Associates, Architects, Clitheroe
On behalf of:
Mr A Procter, Ribchester

1. INTRODUCTION

1.1 A programme of archaeological work is required by Sunderland Peacock and Associates, architects and designers, of Clitheroe, on behalf of Mr A. Procter of Ribchester (the Clients), concerning proposed re-development of a former livestock haulage garage adjacent to (to the SW of) No. 8 Greenside, Ribchester, Lancashire (centred NGR SD 65155 35315). The site lies within the *vicus* or extra-mural settlement adjacent to the Roman fort of *Bremetennacum*, and extends into one of the parts of the *vicus* 'Scheduled' under the *Ancient Monuments and Archaeological Areas Act 1979* as an Ancient Monument (SAM, ref Lancs 55).

1.2 The requirement for an archaeological evaluation follows standard planning procedures, as set out in the Government's Planning Policy Guidance Note No. 16 ('PPG 16') *Archaeology and Planning* (DoE 1990), and reiterated in Lancashire County Council's *Heritage conservation in Lancashire: sustaining the historic environment - a strategy for the future* (LCC 1999, Appendix 1). Acting on advice from the Lancashire County Archaeological Service (LCAS), part of Lancashire County Council's Environment Directorate, Ribble Valley Borough Council (RVBC) imposed the condition to planning approval to Application No. 3/01/0541, requiring a pre-determination archaeological evaluation of the site. LCAS supplied the Client with a Project Brief or specification.

1.3 The proposed development consists of demolition of the existing 1920s or 1930s garage building, and erecting a new two-storey dwelling on a slightly smaller footprint. It is intended that (unlike the present building) the east elevation of the new dwelling should avoid encroaching on the Scheduled area, though the adjacent patio would overlie part of the SAM, and Scheduled Monument Consent (SMC) is therefore required, and has been sought, in addition to planning consent. The Clients and archaeological contractor have been advised by EH that SMC Class Consent 7 will also be required, under the provisions of *The Ancient Monuments (Class Consents) Order 1994*. Statutory Instrument No 1381, May 1994, to cover the archaeological works, and the Clients are understood to have submitted an application for this.

1.4 By implementing a pre-construction archaeological evaluation programme, there may be an opportunity to locate the new house, and particularly to design its foundations, in such a way as to minimise damage to archaeological deposits, and hence reduce further archaeological provision before or during actual construction.

1.5 The proposed evaluation may be seen as the first of a number of steps of an archaeological preservation and/or mitigation strategy, the course of which will be determined by LCAS and EH, in the light of the results of the evaluation. Such a strategy may include some or all of the following:

1. **Evaluation, evaluation report, and archive:** this project.
2. **Full archaeological excavation:** of either the whole area of the site (in the case of a deeply-set concrete raft), or the foundation trenches, in either instance to such a depth as to be below the base of the foundation trenches or raft.

and/or

3. **Permanent Presence Watching Brief** during construction.
   Archaeological deposits revealed would be recorded, sampled, and excavated to an LCAS-agreed Project Design, and artefacts of all periods (and their location) recovered.

1.5 (continued)

4. **Post-excavation assessment of the results**, including cleaning, quantification, identification, and qualitative assessment of the artefact and ecofact (eg animal bone, soil samples, etc.) assemblage, for future deposition with Ribchester Museum.
5. **An assessment report** on the excavation / watching brief, describing results, placing the site in its local and regional context, and including drawn and photographic illustrations, and an appraisal of the need for further investigations, or assemblage analysis.
6. **Further finds and environmental analysis**, if appropriate.
7. **Final Client report**
8. **An ordered archive** of results, for deposition with Lancashire Record Office and/or Ribchester Roman Museum.
9. **Publication reporting of the trial excavations and excavation/watching brief** in appropriate county, period, and popular archaeological journals. Interim notes may be appropriate if there is a hiatus after the evaluation.

1.6 The archaeological programme for the *evaluation* should comprise:

1. **Desk-based assessment and project preparation:** reference to relevant records of excavations and watching briefs undertaken nearby, known to LCAS, Ribchester Roman Museum [RRM], and English Heritage (National Monuments Record, Swindon).
   Study of map sources to determine whether any demolished post-medieval structures lie within the development, so that these can be avoided during the evaluation.
   Contact utility companies to obtain location of pipes and cables (**OR** from Client).
2. **Archaeological evaluation:** excavation of one 2 x 3m or similar area trench. All archaeological deposits revealed (of whatever date) being recorded, sampled, and excavated to appropriate standards, and artefacts of all periods (and their location) recovered.
   Modern overburden and topsoil may be removed by machine down to the top of archaeological (eg medieval or Roman) deposits, and thereafter by hand to determine the nature and depth of such deposits. The depth to which these trenches need to be excavated will depend partly on the nature of the archaeological stratigraphy, and partly on decisions regarding the type of foundation to be used. Generally, evaluation trenches should be excavated until *in situ* archaeological deposits are reached, and LCAS/EH generally require further sample excavation to determine the depth and quality of this *in situ* statigraphy. If cremation burial(s) or other fragile (and time-consuming to excavate) deposits are discovered, LCAS/EH may decide that it is better that these be left *in situ* with some form of protection (eg if they are not going to be damaged during the development), or may require their excavation during the evaluation, or at a later stage.
   Location of trenches: a primary consideration is the boundary of the Scheduled Ancient Monument area. As you know, EH have requested that a Class Consent be applied for, to cover archaeological works within or adjacent to the boundary of the scheduled area. Although in my opinion it would have been preferable to excavate on the line of the west elevation of the proposed dwelling, LCAS and EH seem to prefer a single trench of *c.*2 x 3m roughly in the centre of the present building. If you would prefer me to avoid locating the trench on the line of any internal walls, I will try to do this. A trench at or near the entrance to the garage is inadvisable because of the sewer and the proximity of two buried diesel tanks (health and safety hazard, and their insertion will have removed significant amounts of archaeology).
3. **Backfilling and re-instatement:** the trenches will be backfilled by machine, tamped-down, and a thin concrete surface laid.

4. **Appropriate post-excavation analysis of results**, including cleaning, marking identification, and assessment of the artefact (ie finds) and ecofact (eg animal bone, soil samples, etc.) assemblage, but not extensive study at this stage of the development, unless required by LCAS/EH.
5. **An ordered archive** of results, for eventual amalgamation with further records from the site, and deposition with the Lancashire Record Office, Preston, and/or Ribchester Roman Museum.
6. **A report** on the evaluation results, including drawn and photographic illustrations, and an appraisal of the need and design of for further site investigations.
7. **Synoptic publication reporting of the trial excavations** in appropriate academic and popular archaeological journals.

1.7 **Archaeological background**

1.7.1 The fort and its environs have been the subject of much archaeological research, including excavations from the early 1800s onwards, most of those from the 1960s to the present being carried out in advance of development. A major report on excavations by Lancaster University Archaeological Unit (LUAU) in the extension to St Wilfrid's cemetery, and also at Ribblesdale Mill, in 1989-90, and a popular work on the history of excavation and thought about Roman Ribchester have both been published recently.

1.7.2 This work has shown that a timber fort was first built *c*AD 71-74, modified *c*AD 82-86, and subsequently demolished and rebuilt in stone (or at least the defences) *c*AD 125-135. For at least part of its period of use, the fort is known to have been of high status, with a cavalry regiment garrison, and a regional governor as commanding officer. The presence of defences around the extra-mural settlement at Ribchester is unusual in the North-West, but by no means exceptional, though the physical and theoretical distinctions between military annexes and *vici* are blurred. Examples of such defences are present at six or seven other sites in northern England.

1.7.3 The area overlapping the proposed development site was Scheduled, it seems, more because of the *potential* of archaeological deposits relating to the *vicus* than in response actual discoveries. The extra-mural bath house belonging to the fort lies *c*110m south-west of 8 Greenside, and the so-called Access Road site to the north of this, *c*70m from the development at closest, produced a stone building of *c*AD 130-140 and other structures. Other key sites in the vicinity of 8 Greenside include a cremation cemetery at 49 Church Street and in the Clarendon Haulage yard east of Church Street, a circular hut, smithy/working floor, and hypocaust *pilae* at 25 Church Street, and a Roman industrial building at No. 2 Ribblesdale Road. A watching brief during redevelopment of the former carpenter's/funeral director's workshop adjacent to 28 Water Street, and 'Alandale House' on Church Street to the west of this, revealed ditches and parts of buildings, and work at Lower Boyces Farm also revealed Roman deposits. Numerous other watching briefs have revealed Roman finds, but no identifiable structures, including work by the present writer at 56 Church Street, 5 Blackburn Road, and Bee Mill.

1.8 **The Archaeological Contractor** is a sole trader, and a **prospectus**, giving details of his qualifications, experience, and specialities, is enclosed with this Project Design. Mr Neil has undertaken a dozen previous pieces of work in Ribchester between 1994 and 2001, comprising evaluations and watching briefs within the fort, and in the *vicus*. Also, he spent 12 months directing major excavations within the Hadrian's Wall fort at Wallsend, Tyne and Wear.

2. OBJECTIVES AND METHODOLOGY

2.1 Standards

2.1.1 The following Project Design is intended to meet the requirements of the LCAS Project Brief/Specification, and the Institute of Field Archaeologists' (IFA) *Standard and guidance for archaeological evaluations* (1994, revised 1999), *Standard and guidance for the collection, documentation, conservation, and research of archaeological materials* (2001), LCAS' *General conditions for appropriate archaeological contractors in Lancashire*(2001), and other appropriate standards.

2.1.2 The Archaeological Contractor will excavate by hand, and partly by professionally-driven machine, topsoil, other overburden, and underlying deposits either to the maximum depth required for a concrete raft, or that required for foundation trenches, as directed by the Ribble Valley Borough Council Building Inspector, in conjunction with advice from LCAS, EH, and the Clients. ***The cost of plant hire will be borne by the Client.*** The Archaeological Contractor will recover as high a percentage of artefacts, and their location, as possible, and produce such scale plans, cross-sections, and photographs as necessary to record the site. If possible, datum levels and spot heights on the site will be tied to Ordnance Survey datum using the nearest Bench Mark or spot height. The site will be back-filled and re-instated by machine, pending a planning decision on the development.

2.1.3 Excavation will only be undertaken in areas for which the development requires intervention, though allowing for areas into which the development could be moved if the proposals were to be amended. All adjacent areas will be left undisturbed, to fulfil the aim expressed in PPG 16 of preservation of archaeological deposits, except where disturbance or removal is unavoidable.

2.1.4 In accordance with forthcoming IFA advice, **soil samples** will be taken for possible palaeo-environmental study (especially pollen analysis), in accordance with advice from a specialist, ***if the archaeological deposits appear to merit this course of action***. Any decision as to whether such samples should be evaluated or assessed as part of the project's post-excavation programme, or retained for possible later study, will be made in conjunction with LCAS. Approximate costs for analysis of samples has been included as a Contingency, but such analysis is likely to be undertaken once the fieldwork of any other interventions (eg watching briefs) have also been completed.

2.1.5 **A contingency plan** should be agreed in the event of particularly important archaeological deposits being revealed. In such an instance, the LCAS Archaeological Planing Officer should be consulted immediately. If more detailed or lengthy recording, (eg extension of the trial trenches) were deemed necessary, this would require additional time, and a variation to the archaeological costing. In the event of discoveries involving human remains of any date, or potential Treasure Act 1996 artefacts, these matters will be handled with the utmost discretion, and in accordance with English Law. In the former case, excavation must cease until a licence to remove human remains, under Section 25 of the Burial Act 1857 is obtained from the Home Office. ***See 2.2.1, below, regarding artefacts.*** If cremation burial(s) or other fragile (and time-consuming to excavate) deposits are discovered, LCAS/EH may decide that it is preferable that these be left *in situ* with some form of protection (eg if they are not going to be damaged during the development), or may require their excavation during the evaluation, or at a later stage.

2.2 **Post-excavation assessment**

2.2.1 **Appropriate post-excavation analysis of results**, including cleaning, marking, identification, and assessment of the artefact ('find') and ecofact (eg animal bone, soil samples, etc.) assemblages. Artefacts will be inventoried, spot dated, bagged and boxed to the standard set by the receiving museum, and assessed for their research potential. Whilst, under current English Law, the landowner of the site is legally owner of all artefacts recovered, except Treasure Act items (gold, silver, and associated objects earlier than AD 1700, which become Crown or Duchy of Lancaster property), it is usual practice to deposit the assemblage with a museum by gift. Ribchester Museum have, naturally, agreed to accept the assemblage. **Note**: only limited finds assessment is likely to be necessary after the evaluation, but full finds reporting by a specialist(s) may be appropriate following completion of the development and any further associated archaeological recording provision. Mr Neil generally sub-contracts finds assessment work to the Lancaster University Archaeological Unit (LUAU), or other appropriate specialists, as available.

2.2.2 **Environmental samples will only be processed** with the express authority of LCAS, and such work would have to be funded by the Client. In such an instance samples should be assessed for potential before full analysis takes place. Most such analysis would have to be undertaken by a specialist, probably at Durham University, or LUAU.

2.3 **Archive, and Client and publication reports**

Prepare and submit an indexed archive, an illustrated synthetic report, and summary reports for publication, irrespective of the decision on further works on the site.

2.3.1 *Archive:* the results of the above programme of field and post-excavation work will form the basis of an archive (paper, photographic, magnetic, and plastic media) to professional standards, in accordance with current English Heritage guidelines. The deposition of a properly ordered and indexed project archive in an appropriate repository (Lancashire Record Office, Preston, with a copy to accompany the finds assemblage), is considered an integral element of all archaeological projects by the Institute of Field Archaeologists in their Code of Conduct. The results of the evaluation will be collated to professional standards, following the guidelines of English Heritage (EH) in *Management of archaeological projects* (2 edn, 1991), the United Kingdom Institute for Conservation *Guidelines for the preparation of excavation archives for long-term storage* (UKIC 1990), and the IFA (nd, 1998?) *Archaeological documentary archives*.

2.3.2 Note that ***microfilming*** of the archive has ***not*** been ***costed*** into the estimates. Although ultimately desirable for the permanent preservation of the archaeological record, as emphasised in recent IFA (1999) guidelines, LCAS do not yet insist on this form of archive duplication, or the funding of this by the Client.

2.3.3 *Preparation of final drawings*

The Contractor will prepare all drawings for the Client Report on dimensionally stable drawing film. The level of detail, and conventions, will follow best practice, and will be appropriate to the drawing scale and complexity of the site. Each sheet will be titled. Field and report drawings may utilise, with acknowledgement, survey information supplied by the Clients.

2.3.4 ***Evaluation report to client:*** one copy of a written report will be submitted to the client within 12 weeks of completion of the fieldwork, or to another timetable by agreement. Further copies may be purchased at the Contingency rate. ***At the discretion of LCAS, a short summary only may be necessary, full reporting of the archaeological work being reserved until after the development itself is completed.*** The costing includes obligatory copies of the report for LCAS, EH, and RVBC, and to accompany the archive and finds assemblage, and for the National Monuments Record.

2.3.5 The report will include a copy of the LCAS Project Brief and agreed Project Design, and indications of any departure from that design. It will present, summarise, and interpret the results of the programme, and will include a summary, an introduction to the project, a summary of previous relevant archaeological work in the area, inventories of artefacts and ecofacts, and archaeological deposits ('contexts'), appropriate illustrations, including selected site plans and cross-sections reduced to an appropriate scale, a bibliography, and an appraisal of the significance of the site, and recommendations for further archaeological provision. The report will be in the same basic format as this Project Design; a copy of the report can be provided on 3.5" disk, if desired.

2.3.6 ***It is usual practice for the Client to approve the report before its submission to LCAS. Whilst recommendations will be made by the archaeological contractor in the evaluation report, the final decision regarding the need for, and form of any further archaeological provision before or during the development, is entirely the responsibility of LCAS.***

2.3.7 ***Public Domain:*** the LCAS copy of the report will be accessioned into the Lancashire Sites and Monuments Record, and will become a Public Domain document within 6 months of the fieldwork, unless to another timetable by written agreement between LCAS and the Client. Copies of the report must accompany the archive and finds assemblage, and be sent to the National Monuments Record, Swindon (English Heritage).

2.3.8 ***Publication reports***
Popular publication in *Archaeology North-West* (North-West Group of the Council for British Archaeology), is a LCAS requirement, for which CBA NW levy a small fee, included in the costing. A short report will also be sent for publication in an appropriate academic period journal, such as *Britannia* for Roman deposits.

2.4 **Confidentiality:** the report is designed as a document for the specific use of the Client, for the particular purpose as defined in the Project Brief and Project Design. It is not a publication academic report. Any requirement to revise or re-order the material can be fulfilled, but will require separate discussion and funding. **The archaeological contractor reserves the right to utilise records of the evaluation for publicity or lecture purposes from 6 months after the fieldwork, or sooner with prior consent. Acknowledgement to the Clients will be given during lectures, whenever possible.**

2.5 **Project monitoring:** any proposed changes to the Project Brief or the Project Design will be agreed between the Client, Archaeological Contractor, LCAS, and EH. LCAS wish to monitor this work, and their representative must be given the opportunity to view the excavated evaluation trenches. **The LCAS Archaeological Planning Officer should be informed in writing before commencement of the project. LCAS reserve the right to charge a fee for monitoring (*rarely levied;* included as a Contingency item.**

3. HEALTH AND SAFETY POLICY STATEMENT

3.1 The Contractor is not required, under the Health and Safety at Work Act (1974) to have a permanent written statement of health and safety policy, since he is not the employer of more than five people.

3.2 The Archaeological Contractor undertakes, so far as is reasonably practicable, to safeguard his health, safety, and welfare, and that of anyone working with or visiting him on site, and all members of the public who may chance upon the site during evaluation, in all undertakings connected with the project.

3.3 ***Insurance:*** the Archaeological Contractor has Public Liability Indemnity, with £2 million third-party cover, and on-site Personal Accident Insurance, through the Council for British Archaeology and IFA, underwritten by Lloyds.

3.4 ***Maintain a safe working environment***: potential dangers inherent to archaeological evaluations include the archaeologist working alone close to, and directing drivers of plant in a noisy, dusty, and/or slippery environment, with fume and trip hazards. These dangers will be minimised by pre-project agreement of working methods between the Client, plant contractor, and Archaeological Contractor, and briefing of all site workers on the remit of the archaeologist. Appropriate high-visibility clothing, hard hat, safety footwear, goggles and/or dust mask will be worn on site. In case of emergency, a means of communication will be available, and as a fall-back emergency 'phone access arrangements will be made with the Clients.

3.5 ***Maintain public safety:*** every effort will be made not to leave evaluation trenches open longer than is necessary. Hazard tape and mandatory warning signs will be put prominently in place to inform and deter potential out-of-working-hours visitors, including trespassers.

3.6 ***Ensure that a Risk Assessment for each group of tasks is carried out*** in advance, and that all personnel are aware of the agreed, safest, procedure for carrying out each task.

3.7 ***The Contractor, Clients, and any Employees, or sub-contractors, are legally responsible*** for their thoughts and actions, and must ensure both their own safety and that of others.

3.8 ***Provide adequate facilities for the welfare at work of those engaged on the project:*** it is anticipated that the Clients will be able to provide shelter and hygiene facilities.

3.9 ***Maintain and use equipment, whether owned or hired, such that it does not cause health and safety risks:*** ensure that hired equipment has been supplied with safety information, and that equipment is being used properly. Ensure that ladders, if required, are used safely. Take steps to avoid inhalation of, or risk to others from exhaust fumes from plant.

3.10 ***Provide adequate first aid facilities:*** a first aid kit is kept on site by the Archaeological Contractor.

4. WORK TIMETABLE

4.1 *Contract:* the date of commencement of the evaluation is largely dependent on approval by LCAS and EH of the Project Design, and issuing of SMC Class Consent by English Heritage, which cannot be done until they have received documentation from the Department of Culture, Media, and Sport (DCMS), and is also subject to giving LCAS and EH notice of the commencement of the evaluation. The Archaeological Contractor currently anticipates these formalities taking until at least 24 September 2001. ***This Project Design may be treated as the terms of a contract, subject to its acceptability to LCAS and EH, and once written acceptance of it and of the Costing have been received from the Client.***

4.2 **Outline Resources**

The following resources will be necessary to achieve the evaluation requirements detailed by the Project Design. The total cost (para 5.1.3, excluding contingencies) quoted is a fixed price, to undertake this programme of work. Any variation from this programme of work at the Client's direction may require re-costing.

4.3 **Human resources**

	Task	*Person-Days*
1.	Pre-project site meeting with Client, LCAS, etc	0.5
2.	Project preparation	0.5
3.	Desk-based assessment (previous excavations, plans of services, etc)	1
4.	Machine removal of concrete, and topsoil, then hand excavation and recording of 1 evaluation trench	4
5.	Backfilling and site re-instatement (supervised machining)	1
6.	Finds processing and marking (up to 200 fragments, all periods)	2
	May be sub-contracted see Contingency 5.3.3, if more artefacts/ecofacts than this	
7.	Finds assessment (up to 200 fragments, all periods)	1.5
	May be sub-contracted; see Contingency 5.3.4, if more artefacts/ecofacts than this	
8.	Preparation of evaluation report drawings	1.5
9.	Preparation of archive	2
10	Evaluation report	4
	Total	**18**

5. COSTING

5.1 Costs

5.1.1 **Staff costs** (as in 4.3 above) **18 days @ £** **£**

5.1.2 **Non-staff costs:** **£**
Including plant hire (trial trenching and backfilling), drawing/stationery, report copying and binding, fax, postage, telephones, travel, photography, small tools/equipment, Public Liability Insurance, finds bags and boxes, archive.

5.1.3 **TOTAL, EXCLUDING CONTINGENCIES** **£**
I am not registered for VAT

5.2 **CONTINGENCIES:**

5.2.1 **Further evaluation trench**, or extension to existing trench, if required by LCAS
£
(includes fieldwork, plant hire, and reporting, but **not** finds processing or assessment)

5.2.2 **Subsequent** days of watching brief (other than new trench / extension to trench), consecutive or otherwise, **including further post-excavation analysis and non-staff costs, but excluding finds processing and assessment:**
Each day on site **£**
Or, each half day (by prior agreement) **£**

5.2.3 **Further finds processing and marking** **£**
(***per c100 fragments*** of artefact/ecofact, all periods, additional to Paragraph 4.3, item 6).
May be sub-contracted

5.2.4 **Further finds assessment** **£**
(***per c100 fragments*** of artefact/ecofact, all periods, additional to Paragraph 4.3, item 7).
May be sub-contracted

5.2.5 **Attendance at project meetings** **£**
(***per meeting***, if additional to 4.3, item 1 and outwith fieldwork days)

5.2.6 **LCAS Project Monitoring (*per visit*)** **£**

APPENDIX 3
LIST OF ARCHAEOLOGICAL LAYERS AND FEATURES ('CONTEXTS')

Context	Description
01	Concrete, depth 80-150mm
02	Mid brown clay loam, underlying 01, overlying 03-09
03	Light to mid-orangey brown clay, subsoil, underlying 02, cut by 10, 15
04	Carbon deposit, diameter *c.* 0.40m, abutting burnt clay 06, probably lens in fill 07, in cut feature 15
05	Burnt clay deposit, 0.80m x 0.15m, lying S of 04, and abutting carbon 08, probably lens in fill 07, in cut feature 15. Partly underlay 02, partly directly below concrete 01
06	L-shaped burnt clay deposit, 0.30m x 0.10m, abutting W side of carbon 04, probably lens in fill 07, in cut feature 15
07	Mid to dark brown clay loam with very few stones, fill within cut feature 15, but ?within later cut 16, cutting 12. Underlies 02, abutted by 04-06, 08
08	Carbon deposit, diameter *c.* 0.20m, abutting burnt clay 05, probably lens in fill 07, in cut feature 15
09	Cobbles to 150mm diameter in redeposited clay, upper fill in pit 10, overlying 14. Clay is predominantly grey with 20% red-brown mottles. Contained Roman altar RF 01.
10	Cut feature, probably a pit, filled by 09, overlying 14. Cuts 03, 11. Cross-sectioned to E and S, so uncertain what % of feature revealed. At least 1.30m E-W and same N-S. Not bottomed, but at least 1.00m deep
11	Pebbly yellow-grey clay subsoil, with some small cobbles to 100mm, underlying 03, and cut by 10
12	Compacted, re-deposited grey-brown clay and mid-brown clay-loam, with few ?daub fragments, in cut feature 15. Overlies ?primary fill 13. Cut by 16, with fill 07
13	Lower, ?primary, fill of redeposited orangey brown pebbly gravel within cut feature 15, underlying 12 and ?cut by 16, with fill 07
14	Re-deposited grey gravely clay, underlying 09 in pit 10
15	Cut for ?post-trench, filled by 12, 13; cut by 16. Feature appears to be L-shaped and runs parallel to N and W sides of trench. Relationship to 17 unclear, latter may cut it.
16	Later cut within 15, cutting 12, and 13, at S side of feature. Filled by 07, and carbon and burnt clay 04-06 and 08
17	Probable cut for wide (1.30m +) but shallow (0.15m maximum) linear feature running parallel to S side of trench. Fill appears in plan and section to be undifferentiated from 02
18	Mid brown clay loam, indistinguishable from 02, the fill of linear feature 17

ILLUSTRATIONS

Fig 1 Edwards' and Webster's (1987, vol 2, p.8, fig 1) map, enhanced, showing site in relation to selected previous adjacent archaeological work

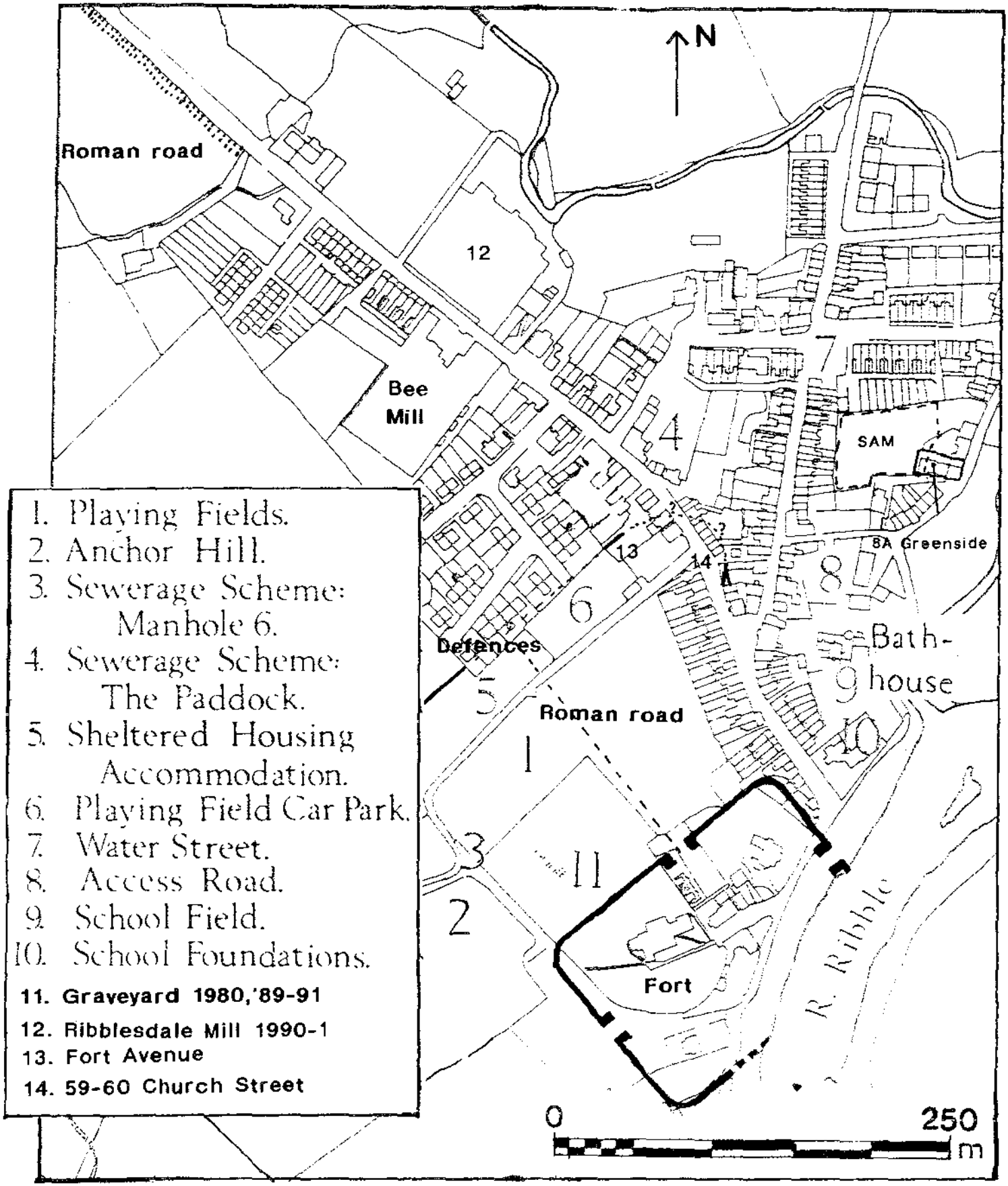
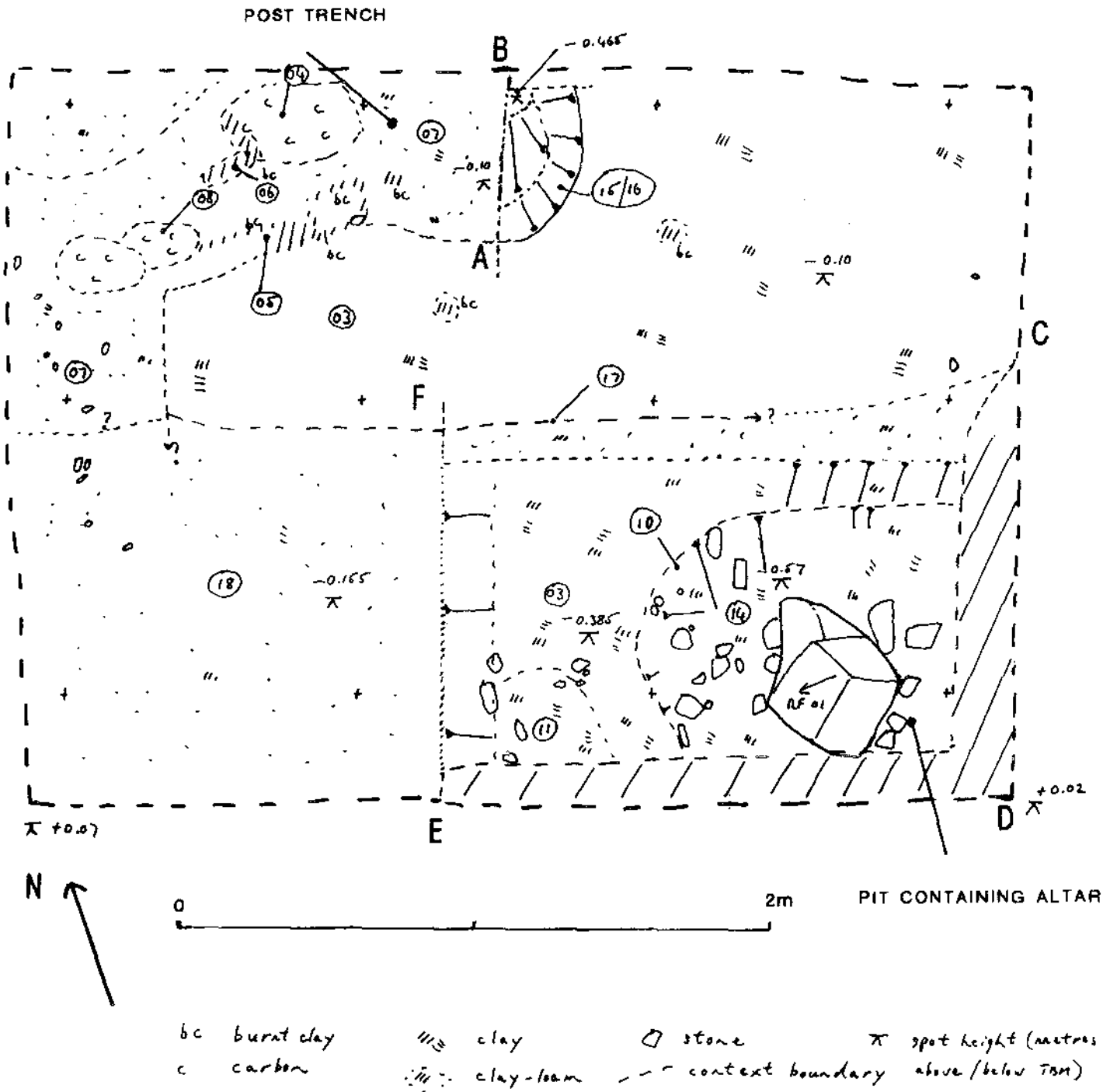
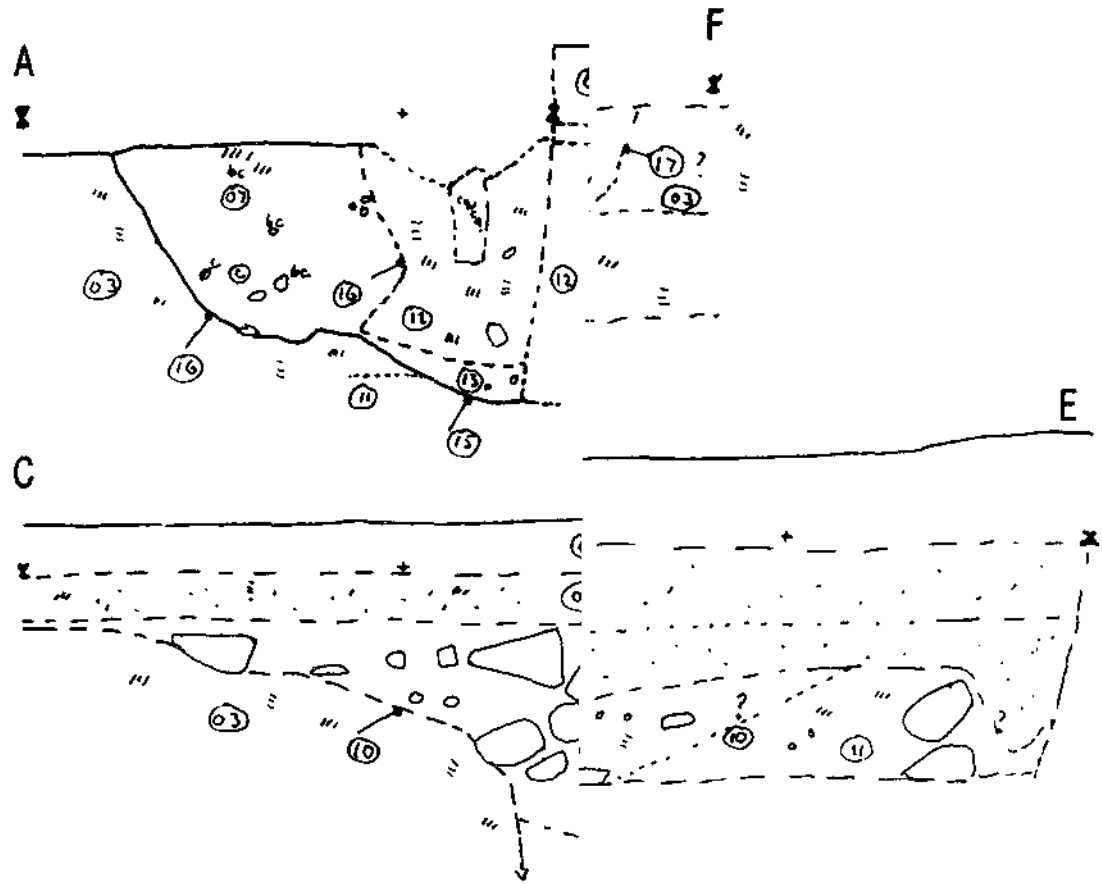


Fig 3 Plan of evaluation trench, fully excavated, scale 1:20





bc burnt clay
c carbon
clay
clay-loam
stone

Fig 5 **Exterior view of garage, showing original topsoil level in garden plot, looking north, scale 1m**
Fig 6 **General view of interior of garage during evaluation, looking west. Raised area of concrete to left is location of below-ground diesel tanks.**