
NORTH PENNINES ARCHAEOLOGY LTD

Client Report No. CP/468/07



**ARCHAEOLOGICAL
DESK-BASED
ASSESSMENT AND FIELD
EVALUATION
FOR A PROPOSED
DEVELOPMENT AT
FRENCHFIELDS
PENRITH
CUMBRIA**

**FOR
LOWTHER MANELLI
PROPERTIES LTD**

**NY 53921 29421
Planning Application No
07/0213**

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EXECUTIVE SUMMARY

In April 2007, North Pennines Archaeology Ltd was commissioned by Lowther Manelli in association with Manning Elliot to undertake an archaeological desk based study and field evaluation, in advance of a proposed development which will involve the construction of a football stadium, car parking and access road. As a result Cumbria County Council Historic Environment Service (CCCHES) recommended a programme of archaeological work to be undertaken in accordance with a written scheme of investigation submitted to and approved by CCCHES. The initial stage of work consisted of a desk-based assessment of the area defined by a 1km radius, followed by the excavation of a series of liner trial trenches.

The study involved the examination of all pertinent documents and cartographic sources held in the County Records Office in Carlisle, and the consultation of the Historic Environment Record (HER) of Cumbria County Council based in Kendal. The HER includes the locations and settings of Scheduled Ancient Monuments, Listed Buildings, Parks and Gardens and other, non-designated archaeological remains. In addition, a number of published sources were consulted to provide background information, including the Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society and several relevant web sites. The desk-based assessment provided a brief outline of the topographical, geological, historical and archaeological background of the development site, covering all periods from the prehistoric to the early twentieth century, in order to give a context in which to view the results of the evaluation.

A total of **39** sites of historic and archaeological interest were identified. The prehistoric period is represented by a possible ring ditch and several sherds of Neolithic Peterborough Ware (Site **10**); in addition to this, there is the potential that a number of undated crop-mark and earthwork sites identified by aerial photography to have prehistoric origins (Sites: **20, 24, 25, 26** and **34**).

The Roman period is evidenced by the substantial fort of *Brocavum* (Site **13**). The fort is located to the west of the River Eamont and occupies a commanding position guarding the river crossing. The fort forms part of a number of Roman Military installations throughout the Eden Valley and is closely associated with the Roman road system. The associated civilian settlement (*vicus*) is extensive and covers a large area (Site **7** and Site **19**) and which has the potential to extend into the development area. The Roman cemetery (Site **4**), at Brougham, yielded a number of internationally important finds and as the burial record in Roman Britain is heavily biased towards finds from the south, this cemetery provides an invaluable insight into burial practice in the frontier zone and remains the largest cemetery ever excavated in the north. The Roman period is also represented by a significant number of coin hoards and inscriptions recovered from the study area.

The results of the evaluation trenching uncovered redeposited clay layers, interpreted as Roman, due to the samian pottery found compressed within them. Layer (**109**) within Trench 6, and layer (**119**) in Trench 5 are possibly part of the same surface, a raised floor, perhaps used for industrial activities, as the presence of metal working slag was noted. An area of large stone cobbles (**111**), on top of layer (**109**) may be remnants of a wall, or foundations of a structure for metal smithing.

The early medieval period is demonstrated by the discovery of at least three 'Grubenhauser' or sunken buildings, which are of continental origin, at Fremington, to the west of the development site (Site **35**). The sunken buildings are frequently identified in south and east England where

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they are accepted as early Saxon in date. A number of other building types were noted at Fremington which shows evidence of textile and pottery production. The medieval period is largely characterised by Brougham Castle, established c.1215, and associated features (Site **12**) whilst the post medieval period usage of the study area was predominately agricultural and shows the expansion of a number of farms within the area as well of the construction of a new river crossing adjacent to Brougham Castle.

Of the sites identified by the desk-based assessment only 1 site will be directly affected by the development, an undated earthwork noted from aerial photography (Site **34**). An electrical resistance and magnetometer geophysical survey of the development site revealed a number of anomalies, thought to be both geological and archaeological in origin. When these anomalies were targeted through strategically placed trial trenches, they were found to all be geological in origin with the possible exception of the stone lined and capped drains noted in trenches 5 and 6, features [**115**] and [**108**] respectively, that was represented as a linear feature from the results of the previous survey. The other features and layers recorded during the evaluation represent the level of survival of significant archaeological deposits, the retrieval of artefacts and materials (metal working slag), as well as putative structures (cobble feature (**111**)) all warrant further investigation to aid the understanding and interpretation of both the function and the chronology of these layers.

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North Pennines Archaeology Ltd would like to thank David Shaverin of Paradigm Construction Consultants for commissioning the project. North Pennines Archaeology Ltd would also like to extend their thanks to Jo Mackintosh of the Cumbria Historic Environment Record (HER), Jeremy Parsons, Assistant Archaeologist, Cumbria County Council, and all the staff at the Cumbria County Record Office in Carlisle for their help during this project.

The desk based assessment was compiled by Martin Sowerby, while the field assessment was written by Nicola Gaskell. The report was edited by Matthew Town, Senior Project Officer, who was also responsible for project management. The finds work was carried out in house by Nicola Gaskell. The project was overseen by Frank Giecco, Technical Director for NPA Ltd.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Cumbria County Council's Historic Environment Service (CCCHES) were consulted by Lowther Manelli Properties Ltd in association with Manning Elliot Chartered Architects, with regards to a proposed development of a Greenfield site to accommodate a new football stadium, car parking and associated access road on land at Frenchfields, Penrith, Cumbria (NGR NY 540 295, Figure 2).
- 1.1.2 A geophysical survey was undertaken in January 2006, which revealed a number of anomalies within the development area (Heard 2006). It is thought that the majority of features possibly have geological and pedological origins, however a number of positive linear anomalies may represent cut archaeological features, which includes an unidentified earthwork visible on aerial photographs, in the field which is the focus of the development (Site 34). In addition, a number of evaluation trenches were excavated by Carlisle Archaeology in the field immediately to the south of the development site (NY 5376 2941), which demonstrated the survival of a Roman road (HER 1168, Road 7e: Margery 1973) which joins the fort at Brougham (*Brocavum*) to the fort at Old Penrith (*Voreda*). Traces of Roman buildings fronting this road were also revealed which suggests that the civil settlement (*vicus*) associated with the fort may have extended as a ribbon development well to the north west of the fort itself (Martin *et al* 1999 and 2001).
- 1.1.3 Consequently, CCCHES advised that a programme of archaeological works would be necessary prior to the proposed development. The aim of the archaeological desk based assessment and field evaluation would be to provide information concerning the potential impact of the development on archaeological remains.
- 1.1.2 The desk-based assessment comprised a search of both published and unpublished records held by the Historic Environment Record (HER) in Kendal, the Cumbria County Record Offices in Carlisle (CCRO), and the archives and library held by North Pennines Archaeology Ltd. The principal objective of this assessment is to undertake sufficient work in order to identify and characterise the archaeological constraints associated with the development area, in order to assess the archaeological and historical potential of the development site.
- 1.1.3 A site visit was carried out on the proposed development, in order to note any surface features of archaeological interest, areas of potentially significant disturbance, and hazards and constraints to undertaking further archaeological work on site.
- 1.1.4 This report sets out the results of the work in the form of a short document outlining the findings, followed by a statement of the archaeological potential of the area, an assessment of the impact of the proposed development, and recommendations for further work. This report also contains the results of the rapid identification survey (Site Visit) carried out in conjunction with the desk-based assessment.

2 METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 A project design was submitted by North Pennines Archaeology Ltd in response to a request by Lowther Manelli Limited for an archaeological desk-based assessment, site visit and field evaluation, in accordance with a brief prepared by CCHES. Following acceptance of the project design, North Pennines Archaeology Ltd was commissioned by the client to undertake the work. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists (IFA), and generally accepted best practice.

2.2 DESK-BASED ASSESSMENT

- 2.2.1 Several sources of information were consulted, in accordance with the project brief and project design. The study area consisted of a 1km radius centred on the proposed development area (NY 53921 29421). The principal sources of information were the Historic Environment Record (HER), maps and secondary sources. Site numbers have been ascribed to the HER info and are used throughout the text. A complete list of the HER data is in Appendix 1 and is represented on Figure 3.
- 2.2.2 ***Historic Environment Record (HER):*** the HER in Kendal, a database of archaeological sites within the county, was accessed. This was in order to obtain information on the location of all designated sites and areas of historic interest and any other, non-designated sites within the study area, which included monuments, findspots, Listed Buildings and Conservation Areas. A brief record including grid reference and description was obtained for the various sites within the study area, and was examined in depth. Aerial photographs of the area were also studied.
- 2.2.3 ***County Record Office (Carlisle):*** the County Record Office in Carlisle (CROC) was visited to consult documents specific to the study area. Historic maps of the study area, including surveys, Tithe and Enclosure Maps, Acts of Parliament and early Ordnance Survey maps, were examined. A search was made for any relevant historical documentation, particularly regarding the use of the area, drawing on the knowledge of the archivists. Several secondary sources and relevant websites were also consulted.
- 2.2.4 ***North Pennines Archaeology Ltd (NPAL):*** various publications and unpublished reports on excavations and other work in the region are held within the North Pennines Archaeology library and any un-deposited archives of the sites themselves were examined. An electronic enquiry was also made of English Heritage's National Monuments Record and the website of the Archaeology Data Service. This was in order to enhance and augment the data obtained from a search of the appropriate repositories.

2.3 FIELD EVALUATION

- 2.3.1 The field evaluation consisted of the excavation of a series of linear trial trenches in order to provide a predictive model of surviving archaeological remains detailing zones of relevant importance against known development proposals. In summary, the main objectives of the evaluation were:
- To establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these where they were observed.
 - to establish the character of those features in terms of cuts, soil matrices and interfaces;
 - to recover artefactual material, especially that useful for dating purposes;
 - to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes.
- 2.3.2 Twelve trenches measuring 20m by 1.6m were excavated, which constitutes a 5% sample of the development area, which is 2.77ha in size. The trenches were excavated by a JCB 3CX mechanical excavator using a toothless ditching bucket to either the top of archaeological deposits, or the natural substrate, whichever was observed first.
- 2.3.3 Trenches were subsequently cleaned by hand and all features investigated and recorded according to the North Pennines Archaeology Ltd standard procedure as set out in the Excavation manual (Giecco 2001).

2.4 ARCHIVE

- 2.4.1 A full professional archive has been compiled in accordance with the project design, and in accordance with current UKIC (1990) and English Heritage guidelines (1991). The paper and digital archive will be deposited in the Cumbria Record Office, Carlisle. The archive can be accessed under the unique project identifier NPA 07 FRF-A
- 2.4.2 North Pennines Archaeology and CCCHES support the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an online index and access to the extensive and expanding body of grey literature created as a result of developer-funded archaeological fieldwork. As a result, details of the results of this evaluation will be made available by North Pennines Archaeology, as a part of this national project.

3 BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1.1 Frenchfields lies within the undulating farmland of the Eden Valley approximately 1km east of Penrith, and 35.2 km south of Carlisle, in eastern Cumbria. The Eden Valley lies between the Lake District fells to the west and the Pennine escarpment to the east and the valley contains some of the richest agricultural land in Cumbria (Countryside Commission 1998). The site lies at a height of approximately 113m AOD and is positioned close to the confluence of the rivers Lowther and Eamont. The site is situated on a large river terrace created by the Eamont and is bounded to the north by the steep slopes of the terrace which rises to height of 138m AOD at Sceugh Farm. The land immediately surrounding the site has been developed to provide sporting facilities for the town of Penrith.
- 3.1.2 The underlying geology is Permian basal breccias, sandstone and mudstone (British Geological Survey North Sheet, Third Edition Solid 1979) with overlying Moranic Drift, glacial sand, gravel and Alluvium (British Geological Survey North Sheet, First Edition Quaternary, 1977). The overlying soils are known as Wick 1 soils, which are typical brown earths. These consist of glaciofluvial or river terrace drift (Soil Survey of England and Wales, Sheet 4 Eastern England).

3.2 HISTORICAL BACKGROUND

- 3.2.1 **Introduction:** this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments around the study area.
- 3.2.2 **Prehistoric Cumbria:** evidence for early prehistory in Cumbria comes from sites dating to the Upper Palaeolithic period onwards (Young 2002). Upper Palaeolithic and Mesolithic material has been discovered on the terraces of the Tees at Towler Hill, in Teesdale, approximately 34km northeast of the site, and further sites have been identified in south Cumbria (Salisbury 1997, Young 2002). The Cherrys have carried out extensive field walking surveys throughout Cumbria, especially in the Upper Eden Valley, and have succeeded in identifying a large number of Mesolithic, Neolithic and Bronze Age sites from the material they recovered (Cherry and Cherry 1983).
- 3.2.3 By around 8,000 BP, the last of the major ice sheets had retreated. Rising sea levels submerged the land bridge between Britain and continental Europe, an event that traditionally marks the beginning of the Mesolithic, or middle stone age period. Mesolithic populations were active on the Cumbrian coast, for example at Eskmeals, and St Bees, and it is likely that the Kent valley was occupied at this time. On the limestone uplands of the Eden Valley, most sites of Late Mesolithic appearance were discovered at heights of between 275m and 300m AOD. The locations of these lithic scatter sites demonstrate repeated use of specific topography, usually near to a convenient water supply. Most of the sites identified by the Cherrys remain

- unexcavated and so detailed interpretation has not been possible (Cherry and Cherry 2002).
- 3.2.4 Nationally the succeeding Neolithic period is characterised by increased density of occupation, which may be a result of the gradual adoption of a settled agricultural lifestyle. By the Later Neolithic and Bronze Ages, the distribution of artefacts such as stone axes, arrowheads and axe-hammers indicates widespread settlement throughout Cumbria. Studies into the distribution of Stone Axes suggest that both wetlands/coastal areas and the plain itself were occupied at this time (Hodgkinson *et al* 2000). Polished Stone axes from the Langdale mines in the Cumbrian mountains were traded extensively throughout the British Isles, and it is likely that by the 3rd millennium BC, Neolithic inhabitants of Cumbria were part of an extensive trans-European trading network (*ibid*).
- 3.2.5 Rescue excavations at the site of the Roman cemetery east of the fort at Brougham (*see Section 3.2.20-23see below*) recovered several worked flints and two sherds of prehistoric pottery, which have been attributed to the Neolithic period (Fell 1972). The small degree of angularity of the rim and shoulder of the pottery indicate similarities to the Ebbsfleet style of Peterborough ware, however the overall decoration is more common in the later Mortlake style (Gibson and Woods 1997; Elsdon 1999). An aerial photograph of the area also reveals a ring ditch, which may be associated with the pottery, and as the Roman cemetery occupies a raised section of land it is possible that the area was also the focus of occupation during the prehistoric period (Site 10).
- 3.2.6 The later Neolithic and earlier Bronze ages are characterised by increasing social sophistication best reflected by the construction of large monuments, like the stone circles and henge complexes. These monuments have no obvious practical explanation, and are probably best seen as public works central to complex religious or spiritual practices. The three henges within close vicinity of the Frenchfields area, which are outside the study area are: Mayburgh Henge (HER 2867), King Arthur's Round Table Henge (HER 2868) and Little Round Table (HER 3996).
- 3.2.7 The importance of the Eamont area in prehistory is indicated by the presence of these three significant monuments. It is suggested that the henges were probably used at meeting places for people from both sides of the Pennines and may have played an important role in the trade of goods between both sides (Edmonds, 1995).
- 3.2.8 In the later Bronze Age, human society continued to change and develop. Early metalwork finds are rare in Northern England, and metal production and ownership may have been the sole province of a privileged few. Settlement sites dating to the Bronze Age are seldom identified, although aerial photography of the Penrith area has identified a number of sites that are yet to be tested by excavation (Higham, 1986b). Environmental studies, however, have identified cereal pollen dating from c2000 BC, clearly demonstrating the presence of agriculture in the North Cumbrian Plain by the Bronze Age (Hodgkinson *et al*, 2000).
- 3.2.9 A Bronze Age burial cist, containing a contracted skeleton, associated beaker and a food vessel (HER 2865), was discovered c 1870 by a farmer at Moorhouse Farm, in a field a short distance from the farmhouse (Harkness 1873-6; Harkness and Stalker 1880). Another cist and cinerary urn had previously been discovered in 1869, during

ploughing in the adjacent field to that discovered in 1870, itself adjoining the stockyard at Moorhouse Farm (HER **2866**).

- 3.2.10 During the Iron Age the impression nationwide is of a major expansion in population as evidenced by an abundance of settlement sites. There is also clear evidence for a growing social complexity and hierarchy, as demonstrated by high status burials and contrasting settlement sites, for example hillforts compared to small farmsteads. However pre-Roman settlement in Cumbria is one that has seen little modern archaeological research (Higham and Jones 1991).
- 3.2.11 ***Pre-Roman and Roman Cumbria:*** It is arguable that a Bronze Age culture was still dominant in the area at the end of the first century AD. Settlement sites during this period with their round huts and enclosures are morphologically indistinguishable from a range of native traditions of rural settlement anywhere in England from Northumberland to Wessex and dated to the second half of the first millennium BC (Higham and Jones 1991). A number of undated enclosures within the study area may date to this period, (Sites: **20, 24, 25, 26** and 34), however without excavation this cannot be proved. Site **34** is located within the proposed development area itself.
- 3.2.12 A number of large earthworks are thought to date from this period and have been described as tribal centres occupied by the Carvetii, which is thought to be a Latinised name for the indigenous population of North Cumbria (Shotter 2004). The Carvetii are thought to be a sub-group of the Brigantes whose principal territory was east of the Pennines and were a client kingdom, controlled by Queen Cartimandua and partly by her husband Venutius (Higham and Jones 1991).
- 3.2.13 An inscription recovered from the immediate environs of the site mentions the Carvetii. Its find spot lay close to the postulated line of the Roman road (Road 7e: Margary 1973) that was revealed during the excavation undertaken by Carlisle Archaeology (Martin *et al* 1999 and 2001). The inscription consisted of a rough block of local red sandstone and was crudely inscribed with the names and titles of the emperor Postumus (AD 259-68), followed by **RPC. CAR**, or *R(es) P(ublica) C(ivitas) Car(vetiorum)* which translates `to the Public Works of the Carvetian State` (Edwards and Shotter 2005).
- 3.2.14 Recently in the parish of Langwathby, which lies less than two kilometres to the north of the Frenchfields site, the top portion of another milestone, complete with its inscription, was discovered which, again mentions the *Civitas Carvetiorum* (Site **39**). Interestingly, this milestone also describes **LVG** or Luguvalium (present day Carlisle) and **XV111** (19), which clearly states, that its distance has been measured from Carlisle (Edwards and Shotter 2005).
- 3.2.15 The fort at Brougham is located to the west of the River Eamont and occupies a relatively low-lying position on a river terrace (Site **13**). The fort and associated civilian settlement are situated in an area where the primary pattern of military occupation is well preserved and is closely associated with the Roman road system (Higham and Jones 1991). The fort is believed to be Brocavum, which is noted in the Antonine Itinerary (Rivet and Smith 1979). Relatively little, however, is known of its history during the Roman period. Eric Birley writing in 1936 provides a broad chronology of the site (Birley 1936).

- 3.2.16 The fort at Brougham is strategically well placed at the centre of the Eden Valley, and at its intersection with three major roads; the east-west road from York to Carlisle (Road 7e: Margary 1973), the road from Ambleside (Road 74: Margary 1973) as well as the road from Low Borrow Bridge fort in the Tebay Gorge (Road 7d: Margary 1973) and close to a crossing point of the River Eamont. The east-west road remained a significant and well-used route throughout the medieval period and, indeed, it appears on the fourteenth century map of the area by Gough (Gough 1780). The northwest route is, however less well defended at Brougham. Margary considered that it would join Moor Lane at the bend of Moorhouse Farm, following the lane past Fremington Farm to Brougham, and passing east to the ford on the River Eamont to the fort at Old Penrith (Margary 1957; Site 4). Traces of this route were identified from aerial photographs and were excavated by Carlisle Archaeology, which revealed a metalled surface and evidence of strip buildings (Martin *et al* 1999 and 2001), together with a possible alignment extending south from the fort (Site 1).
- 3.2.17 Located to north west of the main fort is a smaller Roman marching or temporary camp (Site 14). This small fort occupies an elevated position overlooking the river, from which it would command a strong defensive position overlooking the valley and beyond. The fort is ditched on all sides, however the northeastern extent is partly destroyed by river erosion. An entrance is clearly visible with 'tutuli' type entrance at the centre of the southeastern side. It is possible that this fort predates the later larger fort to the northwest and was constructed either as a temporary camp for the construction of this fort or used to defend the river crossing, possible during the first Agricolaan incursion into Cumbria, however this must remain speculative.
- 3.2.18 Intensive aerial photography in the early 1970s to the 1980's recorded a number crop marks within the study area. Sceugh Farm Settlement (Site 2), located to the east of Frenchfields consists of a double-ditched rectangular enclosure. A topographical survey and trial trenching was undertaken on site, however no evidence was recovered to confirm an Iron Age or Romano-British Date (LUAU 1993). Aerial Photography undertaken on the fort itself appears to demonstrate that the extramural civilian settlement (*vicus*) at Brougham was '*widely dispersed and thinly populated*' although little archaeological investigation has taken place to confirm this supposition. (Higham and Jones 1991; Sites 7 and 19), Antiquarian accounts indicate a focus of Romano-British settlement to the east of the fort which William Stukely, in 1725, distinguished the from the fort itself when he observed that "*The high ground by the Countess Pillar, where most of the inscriptions were found, seems to have been the site of the city*", the *vicus* (Birley 1932). The Carlton Hill enclosure (Site 21) is thought to be Roman-British in date and consists of a single ditched enclosure. Located to the northeast of the development site is the Brougham Enclosure (Site 22), which consists of a dike, which is linked to a circular enclosure. The site was partly evaluated by LUAU in 1993, however no features or dating evidence was recovered (LUAU 1993). Also, adjacent to this cropmark is a possible Roman field system (Site 30), which was also investigated by LUAU in 1996. The evaluation revealed a series of ditches which appear to pertain to field boundaries, which yielded sherds of Roman pottery (LUAU 1996 and 1997).
- 3.2.19 The proposed development will directly impact upon a series of archaeological features, which consists of a pattern of curving features and may represent segments of

ditched enclosures (Site 34). As already discussed, substantial Roman archaeology was revealed in the adjacent field (Site 1) and a magnetic and resistance geophysical survey undertaken in 2006 found a number of anomalies which appear to be geological in origin, in addition to a number of possible linear cut features.

- 3.2.20 The Roman cemetery at Brougham was excavated by the Ministry of Works under the direction of Dorothy Charlesworth in 1966 (Ministry of Public Buildings and Works 1967; 1968; Site 5) as a result, approximately 275 well-furnished third century cremations burials and associated features were recovered. As the burial record in Roman Britain is heavily biased towards finds from the south, this cemetery provides an invaluable insight into burial practice in the frontier zone. It remains the largest cemetery ever excavated in the north. The objects that accompanied the deceased to their graves provide an assemblage of third century material culture that is unparalleled anywhere in the country (Cool 2004).
- 3.2.21 **Early Medieval Period:** evidence for Early Medieval activity in Cumbria is extremely limited, the end of the Roman economy depriving the archaeologist of diagnostic artefactual evidence on all but a small minority of sites (Higham 1986a). However, work in recent decades has shown that the ‘Romans’ did not leave behind them a cultural vacuum, and archaeology has begun to fill the gap between the ‘Dark Ages’ and the colour of, for example, such histories as the Northumbrian monk, The Venerable Bede’s, *Historia Ecclesiastica* written in the early 8th century.
- 3.2.22 It is clear that a number of Roman military installations (Birdoswald; Wilmott 1997) and civilian sites (Carlisle; Keevil, forthcoming), showed that occupation of these sites continued after Roman rule broke down. Located approximately 2km to the west of Frenchfields is St Ninians church (St Ninian established a church at the Isle of Withorn Scotland, c AD397), which may indicate the presence of an early religious establishment. The church stands in a sheltered bend of the River Eamont, and is now known as St Wilfred after it was re-dedicated sometime before the thirteenth century (Bouch 1956). Crop marks indicate the outline of an elliptical enclosure and it is possible to discern details of internal structures. These rectangular or sub-rectangular features occur along the inside edge of the enclosure bank, however no clear evidence for a church is visible (Higham and Jones 1991). Without excavation it is not possible to confirm if St Wilfreds is a pre-English monastic, however the crop mark evidence is comparable to the presumed early example of a monastic site at Hoddom, and perhaps Ruthwell both in Dumfries and Galloway (Higham and Jones 1991).
- 3.2.23 Indeed, closer to the study area, excavations at Fremington, 1km to south east of Frenchfields, during the construction of the Shell North Western Ethylene Pipe line, a number of features were excavated which can be dated to the post-Roman period. Although a number of high status sites of the post-Roman period have been excavated at Birdoswald (Wilmott 1997) and Dacre (Newman and leech forthcoming), all in north Cumbria, the discoveries at Fremington provided the first investigation of a rural site of this period in the region (Oliver *et al* 1996).
- 3.2.24 The site has revealed evidence for a rural community which appears to have been centred on the seventh and eighth centuries (Oliver *et al* 1996). The structural evidence includes sunken structures which are frequently identified in South and East England at this period (*Grubenhauser*). Sunken floor structures are without doubt of

Continental origin (Rahlitz 1981), where they appear over a wide area in the late Roman period, in Britain however, these structures are accepted as early Saxon in date. In Cumbria, until the excavation at Fremington, there has been no evidence for any such structures with the only similarly comparably site is that at Bryant's Gill in the Lake District which can be dated to the eighth century (Dickinson 1985). However, this building is significantly different in character, not least because it was largely constructed of stone, whereas the Fremington structure is constructed entirely out of timber (*ibid*). A number of other building types were noted at Fremington which shows evidence of textile and pottery production, the latter producing simple hand made pottery, perhaps deriving from the long lived prehistoric tradition coexistent with Romano-British activity in the area with some influence derived ultimately from 'Anglican' sources (Oliver *et al* 1996).

- 3.2.25 **Later Medieval Period:** by the 11th century, the political situation in Cumbria was volatile, with the emergent kingdom of Strathclyde to the north and the growing power of England to the south competing for political control (Kirkby 1962). Much of the modern county of Cumbria remained outside Norman control (thus not being included in Domesday Book of 1086) until 1092 when William Rufus marched north to Carlisle. That ultimately decisive advance created a new Anglo-Scottish border a long way north of Brougham. A castle at Carlisle partly secured the border and communications with Yorkshire were established down the Eden Valley with castles at Appleby and Brough (Summerson *et al* 1998).
- 3.2.26 There is no certainty that there was an established settlement at Brougham, as there was there was no obvious need to fortify Brougham. The site appears to have been the centre of a manor, in the hands of a family to which it gave its name. The family, on the evidence of the Christian names of its earliest recorded names Odard and Gilbert who arrived with the new Anglo-Norman regime. It is conceivable that they arrived with either Ranulf le Meschin, who ruled his *potestas* of Carlisle from his castle at Appleby, or with Hugh de Morville, on whom David I, during the Scottish occupation of the region from 1135 to 1157, conferred the barony of Westmorland with the castles of Appleby and Brough (Summerson 1998). It is highly probable that it was Morville, due to the fact that after the wars of 1173-4 when William the Lion tried to recover the northern shires of England, which he lost in 1157, Odard de Broham (*Brougham*) had to pay forty marks '*because he was with the king's enemies*' (*ibid*).
- 3.2.27 Hugh de Morville was considered to be an enemy of Henry II, and as a direct result forfeited his barony, however he succeeded in retaining Westmorland as an English lordship after 1157. In 1174, Robert de Vieuxpont, the son of Hugh de Morvilles sister Matilda was appointed sheriff and then granted lordship by King John in 1204 (Holt 1961). Once he was established lord of Westmorland, Vieuxpont set about acquiring demesne estates and one of these was half the manor of Brougham (Wilson 1967).
- 3.2.28 It is not clear when the castle was established, however it appears to have been constructed around 1215 or 1216. Grants were given to Vieuxpont to mine or quarry stone in as many areas as he could possibly find which included Whinfell forest, just to the east of Brougham and henceforth closely associated with the castle (Hardy 1833). It is likely that the readily available dressed stone from the Roman fort would also have been plundered. The first building on the site consisted of the three lowest storeys of the keep, a large forebuilding which gave access to a door into the first floor

of the keep's east side and a substantial stone structure, now almost entirely vanished, to the east of both keep and forebuilding, which may have been a hall. The earliest surviving remains, which now enclose the castle complex, date from the years around 1300, (Site 12). The first clear reference to the castle is in 1226, where upon the death of Robert de Vieuxpont, his castles, which included Brougham, were entrusted to the justiciar, Hubert de Burgh (Bower 1987). By 1265 the castle was obtained by Roger Clifford through marriage. His son, Robert, inherited the castle in 1283, and was a leading figure in Edward I campaigns against Scotland. He made extensive changes to the castle, improving both its defensive properties and standard of accommodation. Robert Clifford was killed at the battle of Bannockburn in 1314.

- 3.2.29 It is evident that the roads constructed by the Romans into Brougham (including that adjacent to Frenchfields) were still in use during this period. In 1380 four men were granted the right to take tolls, to be levied on *'things for sale'*, from those who used either the bridges over the Rivers Lowther and Eamont, on the boundaries between Cumberland and Westmorland, or Castle Ford (*le Castelwath*) at Brougham, the proceeds to be used for repairing bridges (Bower 1987). Six years later a similar grant licensed the taking of tolls to finance the rebuilding of a stone wall on the Eamont Bridge at Brougham (*ibid*). From this, it is evident that a bridge was in existence, it is also plausible that a bridge existed during the Roman period as the land around the Eamont is prone to severe flooding. However this must remain speculative, as any evidence for an earlier bridge remains elusive.
- 3.2.30 Robert's grandson, Roger, added more domestic buildings in the 1380's, but they were hardly finished before the castle was captured and partly destroyed by the Scots in August 1388. Indeed, as a result of the Scottish attack, the vill (parish or manor) of Brougham was unable to contribute to the lay subsidy of that year *'as that vill is destroyed by the Scots'* (Summerson 1998). A large earthwork to the west of the castle can be attributed to this period (Site 32), which is known as Mauds pool. Maud Clifford was the wife of Roger, she undertook a number of repairs and other works; one of these was a fishpond, which was named after her (Summerson 1998).
- 3.2.31 A bloom smithy or iron works was established by Earl Francis Clifford at Brougham in 1619 (Site 36), and the works were situated on the Frenchfields side of the Eamont.
- 3.2.32 The last member of the Clifford family to live at the castle was Lady Anne Clifford who restored most of the Clifford properties throughout the north-west (Holmes 2001). She also commissioned the Countess Pillar, which is located 0.5km east of the castle (LB Site 2 and LB Site 3). The Countess Pillar is an octagonal pillar and a low table, both made of local stone. The pillar, supports a square capital, on three sides of which are sundials, the fourth side shows a pair of heraldic shields (*ibid*). Lady Clifford died at Brougham in 1676 and the Clifford castles became the property of the Earl of Thanet. The Earl did not require all the castles and chose to concentrate on the castle at Appleby, selling the furnishing and fittings of his other local castles, including Brougham, which gradually fell into ruin and is now under the guardianship of English Heritage (Holmes 2001).
- 3.2.33 **Post Medieval and Modern:** The cultural developments of the sixteenth and seventeenth centuries laid the foundations for radical changes to society and the environment that commenced in the eighteenth century (McNeil and Newman *et al*

- 2004). The worlds first Industrial Revolution produced unprecedented social and environmental change and the north-west England was at the epicentre of the resultant transformation (*ibid*).
- 3.2.34 The eighteenth to twentieth centuries witnessed widespread changes within the landscape of the north-west, and most of the region was affected in some way by developments in agricultural practise, land management and increased industrialisation (McNeil and Newman *et al* 2004). Cumbria however, experienced its agricultural revolution later than most regions of the north, but even so there was a noticeable and notable quickening in the pace of land and stock improvement in the late 18th century and especially in the decades between 1800-1840 when the pioneers such as Howard of Corby and Curwen of Workington were innovating so extensively (Burgess 1989). A report into agriculture in the north of England in the 1790's showed the county to be backwards: people took a long time in generally improving land by manuring, introducing new root and clover crops, getting better strains of livestock and above all investing in land drainage (Burgess 1989).
- 3.2.35 In the eighteenth and nineteenth centuries one of the greatest forces for landscape change in the countryside was parliamentary enclosure. In the north west this occurred from the 1750s until the nineteenth centuries. Some 483,000 acres were affected in the region with about 80% of this in Cumbria (White 2003). The Brougham area was covered by a tithe dated 1840. The area contains a number of large farmsteads, which presumably have origins in the later medieval and earlier post-medieval periods.
- 3.2.36 Farmsteads perform several basic functions: providing shelter for animals and inhabitants: the housing and processing of crops: the storage of fodder and implements. The great diversity of farmstead plans provides a very direct reflection of the degree to which these farm-based functions are located in specialist or combined structures and ranges. A critical factor in farmstead planning is also the relationship of the farm buildings to the working areas within and around the farmstead and farmhouse. The development of the farmhouse has been the subject of regional and national studies (Barley 1961). Formal courtyard layouts, where the barns, stables feed stores and cattle sheds were ranged around a yard and carefully placed in relation to one another in order to minimise the waste of labour, and where the manure could be conserved, were recommended from the mid 18th century. These formal layouts, where the barns, stables feed stores were ranged around a yard, were carefully placed in relation to one another in order to minimise waste and reduce labour. Usually these layouts are the development of earlier U-shaped farmstead and are generally associated with holdings over 150 acres (Wade and Martin 2002). Frenchfield Farmhouse (LB Sites 4 and 5), situated to the north of the site is a typical example of a planned, full regular courtyard farm.
- 3.2.37 In 1802, a presentment was made to Quarter Sessions in Kendal, that part of the highway from Appleby to Penrith was to be improved and refers to the roads around Brougham that needed specific improvements (Curwen 1932). The road that needed most attention was the stretch between Moorhouses to the south of the site, to the ford, which crosses the Eamont adjoining Brougham Castle. Up until 1812 the Turnpike road avoided this bad section and ford, turning westward past Brougham Hall to Lowther Bridge (*ibid*). In order to improve the road and create a more direct route to Penrith, an Act was passed in 1811 to construct a new bridge across the Eamont at

Brougham. Construction started in 1813 and was extensively repaired in 1899 (LB Site 1).

- 3.2.38 The former Cross Keys Public House (LB Site 6) is located to the north east of Frenchfield Farmhouse and along the original road from Brougham to Penrith. The building, which housed the pub, consists of a mid-eighteenth century building, two storeys high with a slate roof. Immediately adjacent to the pub is Candia (LB Site 7), which dates to the mid-nineteenth century and was originally a school, and is now a private residence. Also within this area is an early nineteenth century building known as Carleton Hill (LB Site 8), which was occupied by Anthony Trollope between 1839-43.

4. ASSESSMENT RESULTS

4.1 INTRODUCTION

- 4.1.1 The assessment results are based on primary documents, most notably maps, and on the secondary sources used in *Section 3.2*. The results are presented according to the archive from which they were consulted. There is one HER record located within the redevelopment area (Site **34**), and extra information was gathered for a further **38** HER records located in an immediate study area, defined as a 0.5km radius centred on the sites grid reference.
- 4.1.2 A number of listed buildings were located within the 0.5km radius of the site. The full list of the **8** historic buildings is also given in Appendix 2.

4.2 HISTORIC ENVIRONMENT RECORD (HER)

- 4.2.1 **HER:** There were **39** HER records within the study area, which is defined as a 0.5km radius around the site. The high potential for Roman archaeology was demonstrated during an excavation in the adjacent field. Within the development area itself, Site **34**, will be directly impacted upon and the proposed football stadium will severely truncate any subsurface archaeological deposits. All HER sites are summarised in Appendix 1 and shown on Figure 3.
- 4.2.2 **Listed Buildings:** the listed building records shows **8** buildings within a 0.5km radius of the site, none of which will be directly affected by the development area. The buildings are summarised in Appendix 2. Those buildings that also have been attributed Historic Environment Record numbers are shown on Figure 3.

4.3 CUMBRIA RECORD OFFICE (CARLISLE)

- 4.3.1 The Cumbria Record Office in Carlisle (CRO(C)) was consulted to collate maps for regression analysis of the study area. Information from primary and secondary sources, including archaeological or historical journals, has been incorporated into the historic background (*Section 3.2*).

4.4 CARTOGRAPHIC SOURCES

- 4.4.1 As part of the documentary search at the Cumbria Record Office in Carlisle (CRO(C)), an in-depth scan of the early maps for the Penrith area was undertaken. A cartographic date range of between 1637 and 1925 was obtained. The development area will now be discussed with reference to these early sources, noting any changes to the development area within this period.
- 4.4.2 **Saxton's Map of Cumberland and Westmorland, 1637:** the earliest available map that depicts the area around Frenchfields is Saxton's dating to the mid 17th century (Figure 4). Frenchfields is not named but the manors of Edenhall and Carleton are depicted as well as Brougham Castle and an enclosed Whinfell Forest. The area of Frenchfields lies in the middle of these sites, next to the river, but is unmarked.

- 4.4.3 ***Thomas Donald's Map of Cumberland, 1774:*** the next map dated 1774 is Thomas Donald's map of Cumberland (Figure 5). The site of Frenchfield is named, and buildings are shown clearly on the northern side of the River Eamont, however, those buildings are no longer apparent and were quite possibly situated where the modern A66 road now lies.
- 4.4.4 ***James Clarke's Map of 1787:*** another map that shows Frenchfield in more detail, than previously seen (Figure 6). The buildings are similar to those seen on Donald's map, but they are not the buildings standing today, however, a notable addition is the name of William Raincock written underneath Frenchfield, a possible owner of the land. The development plot itself is left blank, just the fence line is depicted to show it as being an enclosed field adjacent to the river.
- 4.4.5 ***Tithe Apportionment Map for Penrith and Frenchfields, 1840:*** the Tithe Apportionment Map of 1840 (Figure 7) clearly shows the development area in detail. The site is rectangular in shape and the eastern extent of the site is marked by the river Eamont. There is no evidence of any structures or features within the site boundaries, however French Field Farm is clearly identified (now Frenchfields). The fields around the farm have been enclosed and the majority of plots were in use as arable at this time (e.g. Plot 1204, 1205, 1206, 1208, 1209), so it can be assumed that the development site (Plot 1192) was an arable field in 1840 at the earliest. The area around Frenchfield was under the ownership of Thomas Fair who is described as a land agent and farmer (Parson and White 1829 and Mannix and Whellen 1847). Carlton Village is also shown with at least eight dwellings present. To the west of the development site is a Toll Bar and Castle Mill along the road from the castle.
- 4.4.6 ***First Edition Ordnance Survey Map, 1867 – 25" to 1 mile:*** the First Edition Ordnance Survey map (Figure 8) again depicts the site as an open field. The projected line of the Roman road has been added, just to the southwest of the site and in the adjoining field. The buildings that make up Frenchfields now form a courtyard arrangement and are set back from the road, on its north side, along an access road, the older buildings shown on the previous maps are no longer present, the development area is a field without features with the exception of the tree copse in the northwestern corner.
- 4.4.7 ***Second Edition Ordnance Survey Map, 1900 – 25" to 1 mile:*** the Second Edition Ordnance Survey map (Figure 9) is largely similar to the 1st Edition. The small stream that runs along the southern edge of the site from the Frenchfields Farm complex is visible, as is the wooded copse situated in the northwestern corner of the development area. Again the field itself is featureless, and the boundary of the site remains the same today.
- 4.4.8 ***Third Edition Ordnance Survey Map, 1925 – 6" to 1 mile:*** the Third Edition Ordnance Survey Map of the area shows that there are no changes within the immediate development site, or around it (Figure 10). The area of Frenchfields is the same as on the 2nd edition OS.

4.5 ARCHAEOLOGICAL INVESTIGATIONS

- 4.5.1 Numerous excavations and investigations have occurred in the immediate area around Frenchfields, including an evaluation carried out in August 1999 by Carlisle

Archaeology where the finds included a fragment of a flint tool and Roman pottery. The conclusions drawn from this evaluation were that there may have been a settlement in the area of Frenchfields during the prehistoric period and that uncovered evidence of the Roman road and timber structures meant that the vicus may have extended that far north. This led to a second phase of evaluation in both January and July 2000, where substantial Roman occupation was confirmed, mainly in the form of ribbon development along the side of the Roman road. Bradford University conducted a geophysical survey in connection with the previous evaluations that showed the line of the Roman road and the vicus in 2000 (CCCHER). A further geophysical survey was undertaken by Stratascan in 2006, north of all the previous works and on the actual field that is the subject of this investigation, several linear features were highlighted as being possible archaeological features, the results of that survey have helped to inform the present scheme of works.

5 EVALUATION RESULTS

5.1 INTRODUCTION

- 5.1.1 The machine stripping of the trenches, which were subsequently excavated by hand down to the natural subsoil, permitted an examination of the archaeological remains within the development site. All the trenches measured 20m in length and were 1.60m wide. Where no features of archaeological interest were located, a trench record sheet was compiled, and context numbers were not issued. The trench locations are shown on Figure 9 and the contexts are listed in a table in Appendix 3.
- 5.1.2 **Trench 1:** The alignment was ENE-WSW, the minimum depth of the trench was 0.50m and the maximum was 0.60m. Mid-grey moderately compacted cobbles and stone gravels formed the natural sub-strata **(100)** that was observed only on the base of the trench. The cobbles were well-rounded, probably smoothed by water action. This was overlain by a light to mid-grey / orangey-brown moderately compacted sand layer that reached a maximum thickness of approximately 0.40m **(121)**. The topsoil **(122)** consisted of a mid grey loose to moderately compacted clayey silt, the maximum depth of which reached 0.20m. No archaeological features or datable artefacts were seen within this trench.
- 5.1.3 **Trench 2:** The alignment was N-S, with the minimum depth of the trench being 0.17m and the maximum depth reaching 0.80m. The natural sub-strata **(100)** was mixed in colour varying from brown to blue to grey, its consistency was firm and comprised clayey silt. This layer was only observed on the base of the trench and was cut by a drain **[118]** that measured 2m in length, aligned NW-SE. Its maximum width was 0.70m and its maximum depth was 0.15m, observed in the slot that was excavated through it. Seen in the excavated slot were medium sized grey cobbles **[116]**, that were all rounded or sub-rounded, that lined the sides of the cut, these were overlain by sandstone slabs that measured approximately 0.45m². The last context in the drain sequence was the gradually accumulated fill of the drain that comprised mid to dark brown, moderately compacted, slightly clayey silty-sand mix **(117)**. This fill contained only occasional small to medium sized stone inclusions, some sub-rounded, some sub-angular. The drain was overlain by a subsoil layer **(121)** of mid orangey-brown firm sandy-silt that had no inclusions and reached a maximum thickness of 0.52m. The topsoil **(122)** was mid greyish-brown firm sandy silt that was observed as reaching a maximum depth of 0.27m.
- 5.1.4 **Trench 3:** The alignment was NW-SE, the minimum depth of the trench was 0.60m and the maximum was 0.90m. The natural material seen on the base of the trench **(100)** was mid-grey moderately compacted water worn cobbles and gravels, the result of glacial deposits and later river channels. The natural was overlain by a grey / brownish-orange moderately compacted sand that had a variable depth across the trench but reached a 0.60m thick maximum **(121)**. This layer was devoid of stone inclusions, possibly indicating slow or low energy water movement. The topsoil **(122)** of mid-greyish brown loose to moderately compacted clayey-silt also had a variable depth, but

the maximum observed was 0.26m. No archaeological features or datable artefacts were seen within this trench.

- 5.1.5 **Trench 4:** The alignment was NW-SE, the minimum depth of the trench was 0.70m and the maximum was 1.15m. The natural sub-strata **(100)** varied in colour from light to mid greys and browns of moderately compacted medium sized stone cobbles. The natural layer was overlaid by **(121)** a slightly clayey sand layer of moderate to firm compaction that varied in colour from pale yellows to blue-greys. This layer carried no inclusions and reached a maximum thickness of up to 0.70m. The uppermost layer was the topsoil **(122)**, mid-grey loose to moderate compaction slightly silty clay that reached a maximum depth of 0.40m. No archaeological features or datable artefacts were seen within this trench.
- 5.1.6 **Trench 5:** The alignment was NE-SW, with the minimum trench depth being 0.50m and the maximum reaching 1m. The natural sub-strata **(100)** was very firm light blue/grey clay, that had no inclusions. This layer was seen only in a 2m x 1m slot excavated along the eastern section of the trench. The natural was overlain by layer **(120)**, a black, firm silty clay deposit that had up to 90% inclusions of small to medium sized, black angular stones. This layer reached up to 0.20m thick and was observed in the slot excavated in the trench. An environmental sample was taken from this context of 20 litres and was sample number <2>. Layer **(120)** was sealed beneath layer **(119)**, a well compacted mid orangey-brown clay that had no stone inclusions. It was observed extending beyond the width of the trench and measured approximately 15m in length and was approximately 0.30m thick. This layer shows parallels with layer **(109)** seen in Trench 6. The subsoil **(121)** comprised mid orangey-brown silty sand that was moderately well compacted and had less than 5% small stone inclusions, this layer was approximately 0.30m thick across the trench and was overlaid by the topsoil **(122)** that was mid to dark brown slightly clayey silty sand that had no inclusions. This layer was approximately 0.20m thick across the entire trench. No datable artefacts were recovered from this trench.
- 5.1.7 **Trench 6:** The alignment was N-S, with the minimum trench depth being 0.65m and the maximum being 1.20m. The natural sub-strata **(100)** observed was well compacted clayey silt mix with inclusions up to 80% of medium sized rounded and sub-rounded river cobbles, varying in colour from light browns and greys to dark browns. The natural was overlain by **(112)**, a very waterlogged layer of silty clay that contained a high percentage of organic material. It was black in colour and moderately compacted and the main inclusions were pieces of timber, tentatively identified as birch. From this layer a Bronze Age flint was recovered, possibly a fragment of a blade or a scraper, as one edge was broken and a 60 litre environmental sample was taken, numbered as sample <1>. At the northern end of the slot excavated along the eastern edge of the trench (from the southern terminus extending 8m north), a small blue/grey compacted clay layer **(111)** was noted overlying the organic layer **(112)**. It carried no inclusions, no datable artefacts were recovered from it and the only dimensions visible were those in the east facing section of the slot, at 0.08m thick. The most extensive layer in the trench, **(109)** overlaid both the previous two contexts and was a compacted clay layer mid brownish-orange in colour with no inclusions. The dimensions observed were a maximum 13m in length a width that extended beyond the trench, and up to 0.45m thick. Several pieces of samian pottery were recovered from this layer. On top of **(109)**

lay an area of large stone cobbles (**110**), all rounded or sub-rounded, vaguely aligned in a NW-SE direction. The function of these stones remains unclear, but as they were in a discreet grouping and on top of a redeposited layer it can be assumed that they were not naturally occurring.

- 5.1.8 Layer (**109**) and the subsequent layers beneath were cut by a linear feature identified as a culverted drain [**108**]. The drain cut was measured as being 3m in length, approximately 0.90m in width and up to 0.40m deep. Sandstone slabs were placed within the cut to shore the sides and to cover it over. The slabs [**106**] varied in size, the smaller ones in the cut were approximately 0.30m by 0.10m by 0.07m thick whilst the larger stones on top were approximately 0.80m² and up to 0.10m thick. The final context in the culverted drain sequence was (**117**), the backfill into the cut after the insertion of the stone masonry. This fill was a moderately compacted mid to dark brown silty sand mix that contained a small amount of clay with moderately occurring small to medium sized stone inclusions, some of which were sub-rounded whilst others were sub-angular. No datable artefacts were recovered from this feature.
- 5.1.9 Layer (**109**), drain feature [**108**] and all other contexts in the trench were overlaid by the subsoil (**121**) which comprised moderately compacted mid-brown sandy silt, that reached up to 0.30m in thickness and was in turn covered by the topsoil (**122**) of moderately compacted mid greyish brown slightly clayey silty sand that carried only occasional inclusions of small, sub-rounded stones.
- 5.1.10 **Trench 7:** The alignment was NW-SE, with the minimum depth of the trench being 0.90m and the maximum reaching 1.20m. The natural sub-strata (**100**) was mid grey loosely compacted silty sand with up to 90% stone inclusions, poorly sorted in size, varying from very small to medium sized cobbles. This layer was cut by linear feature [**105**], aligned NE-SW, measuring 1.60m in length, 2.03m in width at its maximum and reaching up to 1.71m in depth. In section the cut was observed as a gradual V shape, with a concave base. It contained four fills, the primary fill (**101**) was seen for 1.50m in length, 0.50m in width and had a maximum thickness of 0.07m. Fill (**101**) comprised firm mid orangey-brown clayey silt containing occasional small stones. This was overlain by fill (**102**), a dark brown firm clayey silt that had approximately 5% small stone inclusions. Its dimensions were recorded as 1.60m in length, 0.50m in width and up to 0.07m in depth. Fill (**102**) was in turn covered by fill (**103**) a firm orangey brown clayey silt that again carried approximately 5% small stone inclusions, it measured 1.60m in length, 1.00m in width and reached up to 0.21m thick. The uppermost fill within the cut was (**104**), a firm light orangey brown sandy silt that contained up to 60% of small to medium sized well rounded and sub-rounded stones. The dimensions seen of this layer were that it reached 1.60m in length, 2.06m in width and up to 0.30m thick. No artefacts of archaeological interest were recovered from this feature that has tentatively been interpreted as a field boundary or small ditch. The feature was overlaid by the subsoil layer (**121**) that was mid to dark brownish-grey, moderately compacted silty sand that contained 5% small stone inclusions, it reached a maximum thickness of approximately 0.40m. The final layer was the topsoil (**122**) that comprised mid brownish grey, moderately compacted silty sand that had up to 10% very small rounded inclusions.

- 5.1.11 **Trench 8:** The alignment was NW-SE, the minimum depth of the trench was 0.81m whilst the maximum was 1.26m. Mid to dark reddish brown loosely compacted sandy silt with up to 90% stone inclusions formed the base of the trench. This natural sub-strata (**100**) was overlain by up to 0.56m worth of mid reddish brown firmly compacted sandy silt that made up the sub-soil layer (**121**). The topsoil (**122**) reached a maximum depth of 0.38m of light grey-brown loosely compacted sandy silt. No archaeological features or datable artefacts were seen within this trench.
- 5.1.12 **Trench 9:** The alignment was WNW-ESE, with the minimum depth of the trench being 0.60m and the maximum 0.90m reached towards the southern end of the trench. The natural observed was mid to dark greyish-brown loosely compacted silty sand (**100**). This was seen only on the base of the trench. The subsoil layer was mid-brown moderately compacted silty sand (**121**) that reached a maximum depth, as seen in the section, of 0.70m. The topsoil layer (**122**) was again mid-brown moderately compacted silty sand.
- 5.1.13 **Trench 10:** The alignment was N-S, with the minimum depth of the trench being 0.60m and the maximum 1m. The observed natural in this trench (**100**) comprised moderately compacted cobbles and gravel, mostly grey in colour and moderately well sorted. At the northern end of the trench a palaeochannel was noted, filled with very fine silty clay mix that carried no inclusions. This was overlain by subsoil layer (**121**) mid-brownish orange, moderately compacted, slightly clayey sand that reached a maximum thickness of 0.80m, when viewed in section. The topsoil (**122**) was made up of mid brown moderately compacted clayey silt that had occasional small stone inclusions.
- 5.1.14 **Trench 11:** The alignment was NE-SW, with the minimum depth of the trench being 0.59m and the maximum 0.88m. The natural sub-strata seen in the trench was mid brown, loosely compacted sandy silt with up to 90% inclusions of medium sized stones, all sub-rounded (**100**). Two possible palaeochannels feature in this trench, both of which had a fine silt fill that was yellowish brown in colour and had stone inclusions of medium sized water worn cobbles resting at the bottom. These were overlain by subsoil layer (**121**) mid brown, moderately compacted sandy silt that reached a depth of 0.14m when seen in the section. The topsoil layer (**122**) was light greyish brown loosely compacted sandy silt that reached a maximum thickness of 0.20m.
- 5.1.15 **Trench 12:** The alignment was NW-SE, the minimum depth of the trench was 0.80m and the maximum was 0.82m. At the bottom of the trench the natural sub-strata was visible, (**100**) and comprised light bluish grey very firm clay that contained only very occasional large sized water worn cobbles. This layer was seen in section as approximately 0.10m. The overlying layer (**121**), was mid reddish brown firmly compacted clayey silt that reached a maximum depth of 0.33m and this was covered by the topsoil layer (**122**), light to mid grey firmly compacted sandy silt that reached a maximum thickness in the section of 0.39m.

6 FINDS

6.1 INTRODUCTION

6.1.1 The finds were cleaned and packaged according to standard guidelines, and recorded under the supervision of F Giocco (NPA Ltd Technical Director). The metalwork has been placed in a stable environment and will be monitored for corrosion. At this stage only initial quantification and identification has been undertaken.

6.2 CERAMICS

6.2.1 Five fragments from a single Roman Ceramic Vessel were recovered from context **(109)**, all are of plain Samian ware. The pottery is typically East Gaulish in origin and is recognisable as a Dragendorff 38 form, which was in production from AD140-230.

6.2.2 A single fragment of CBM (ceramic building material) was also recovered from context **(109)**, which has been identified as a Roman context. It is possible that the fragment relates to a brick or tile that is Roman in date, however its degraded nature makes secure identification difficult.

6.3 METALWORK

6.3.1 Six metal fragments were recovered using a metal detector; they consisted of fragments of modern farm implements and nails, all made from iron.

6.4 INDUSTRIAL DEBRIS

6.4.1 Four fragments of industrial debris were recovered. The pieces have bonded to small stones, which strongly indicates that the fragments possibly formed part of a hearth bottom (smithing buns) and are possible examples of blacksmithing in the vicinity. All four pieces came from context **(111)**. This material can contribute towards a general understanding of activity with the site.

6.5 LITHIC ARTEFACTS

6.5.1 Three fragments of fire cracked stones were recovered from context **(111)**, which is indicative of industrial activity or possibly habitation within the vicinity of Trench 6.

6.5.2 One piece of worked flint was retrieved from context **(112)** in Trench 6, its dimensions were 40mm in length, 30mm in width and up to 4mm in thickness (see Figure 1). The straight edge side is most probably an antiquated break, the edges are not sharp, having worn with age. This could be a factor in its deposition; it may have been damaged and therefore discarded. The ventral face is relatively smooth, not bearing any evidence of a bulb of percussion. This indicates that either the flint tool was originally longer, and the striking platform further away, or that it was shortened after becoming a blade to

create a scraper. A few chips have been taken off the working edge of the ventral side form the re-touching process that occurred on the dorsal side.

- 6.5.3 The dorsal side of the flint piece shows evidence of radial scars where another piece has been separated from it to thin it out, as well as small multiple faces along the cutting or working edge, obtained from repeated striking or 're-touching', to obtain the sharpest and most effective blade.

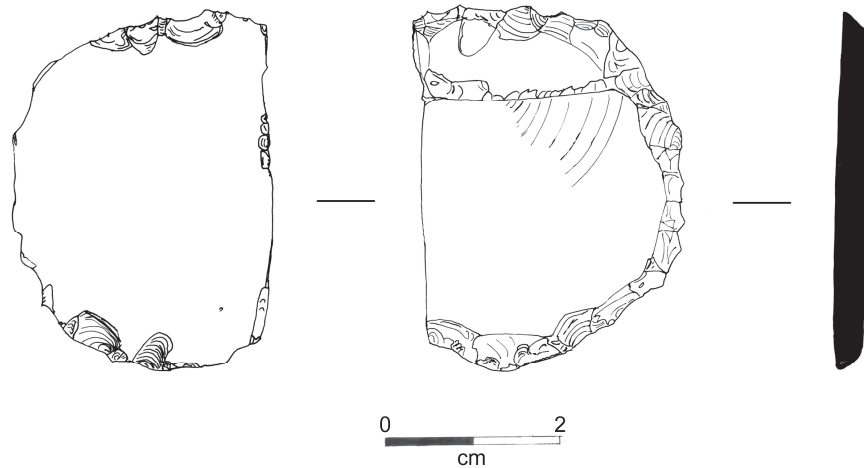


Figure 1: Flint fragment recovered from layer (112) in trench 6 showing both the ventral and dorsal faces.

CONTEXT	FIND	DESCRIPTION
(109)	Ceramic	Samian Pottery (5 sherds)
(109)	CBM	Possible Roman Brick
(111)	Industrial Debris	Metal/stone conglomerates, residues of metal working
(111)	Stones	Fire cracked stones that have been in contact with an intense heat source
(112)	Lithic	One piece of worked flint, possibly a Bronze Age Scraper
U/S	Metalwork	Six waste metal pieces, probably Post Medieval industrial, found by detecting

Table 1: Details of Recovered Artefacts

7 ENVIRONMENTAL ANALYSIS

7.1 INTRODUCTION

- 7.1.1 Of the 12 trenches excavated only 2 contexts were considered worth sampling. Sample number <1> came from an organically rich layer in Trench 6 (**112**), while sample number <2> was taken from another, possibly organically rich deposit in Trench 5, (**120**). Both of the samples were whole earth samples and were selected for processing in order to assess their environmental potential. This will help provide further information as to the depositional processes involved in their formation. The methodology employed required that the whole earth samples be broken down and split into their various different components. This was achieved by a combination of water washing and flotation. The recovered remains can then be assessed for content.
- 7.1.2 Flotation separates the organic, floating fraction of the sample from the heavier mineral and finds content of sands, silts, clays, stones, artefacts and waterlogged material. Heavy soil and sediment content measuring less than 1mm falls through the retentive mesh to settle on the bottom of the tank. Flotation produces a ‘flot’ and a ‘residue’ for examination, whilst the heavier sediment retained in the tank is discarded. The method relies purely on the variation in density of the recovered material to separate it from the soil matrix, allowing for the recovery of ecofacts and artefacts from the whole earth sample.
- 7.1.3 The retent, like the residue from wet sieving, will contain any larger items of bone, or artefacts. The flot or floating fraction will generally contain organic material such as plant matter, fine bones, cloth, leather and insect remains. A rapid scan at this stage will allow further recommendations to be made as to the potential for further study by entomologists or palaeobotanists, with a view to retrieving vital economic information from the samples. Favourable preservation conditions can lead to the retrieval of organic remains that may produce a valuable suite of information in respect of the depositional environment of the material, which may include anthropogenic activity, seasonality and climate and elements of the economy.
- 7.1.4 The contents of the samples are listed below in Table 2.

SAMPLE NUMBER	CONTEXT NUMBER	SAMPLE SIZE (litres)
1	112	60
2	120	20

Table 2 Details of samples and contexts

- 7.1.5. At the time of completion of this report, a full analysis report of the samples was not available, this will be written up as a separate article when the study of the samples is complete. What was thought at the time of sampling was that sample <1> from context (**112**) contained a lot of wood pieces and hazelnut shells, an indication of the land coverage of the time. The wood pieces did not appear to be worked, many still retained their bark and their diameters were not large enough to be used as functional

posts. Their random distribution throughout the context may be indicative of naturally changing land or they may be evidence of deliberate land clearance by human design, to utilize the area close to the river. Sample <2> from context **(120)** also appeared to contain organic material in the form of charcoal, pieces of which may be identifiable with regards to the wood used.

8 CONCLUSIONS

8.1 ARCHAEOLOGICAL POTENTIAL

- 8.1.1 The desk-based assessment showed that the potential for prehistoric archaeology within the development site was considered to be low. Prehistoric finds from within a 0.5km radius of the site were restricted to a possible ring ditch and pottery finds (Site 10). However, evaluations in the field immediately south of the present study area locating prehistoric artefacts and with the retrieval of a piece of worked flint from a layer within one of the trenches, the potential for further prehistoric remains on the site has increased.
- 8.1.2 Based on the documentary evidence coupled with the results of excavations in the adjoining field to the south the potential for Roman archaeology was thought to be high. A geophysical survey undertaken within the proposed development site in January 2006, revealed a number of possible anomalies. A number of these positive linear anomalies were thought to represent cut archaeological features, which includes the unidentified earthwork and cropmark (Site 34), but after investigation by trial trenching these anomalies were discovered to be natural in origin, silted up water courses in a low lying and wet area. Evidence for the Roman period was recovered in the form of several pieces of Samian pottery, found within a clay layer (109), originally thought to be natural in Trench 6.
- 8.1.3 The potential for the early medieval period was thought to be low to moderate, despite the discovery of at least three 'Grubenhauser' or sunken type buildings at Fremington dating the 7th and 8th centuries (Site 35), less that a kilometre away from the development area. At the end of the evaluation phase there were no archaeological material, layers or artefacts that could be ascribed to the early medieval period.
- 8.1.4 The desk-based assessment showed that the potential for medieval archaeology was also low to moderate despite the sites close proximity to the medieval castle at Brougham (Site 12). It is possible however; that the development area was cultivated and ploughed during this period but no features associated with activity, or any datable artefacts from the medieval period were revealed.
- 8.1.5 The potential for post-medieval archaeology to be present within the development area was considered to be low, however, stone lined and capped drains were observed in three of the 12 trenches (features [108], [115] and [118]), relating to the attempts to dry out a very flood prone area of land.
- 8.1.6 The archaeological field evaluation located significant archaeological layer and features. It appears that the field on which the development will be sited has seen major direct human intervention in the form of possible land management, artificially raised layers, and due to the discovery of metal working waste from Trench 6, industrial processes.
- 8.1.7 Although archaeologically significant deposits have been observed and recorded in three of the trenches, a full explanation of the sequencing and the reasons for the layers (especially those seen in Trench 6) is not forthcoming due to the restrictive nature of the evaluation trenches. The extreme bad weather encountered during the last three days of the evaluation also hindered progress and subdued any chances of artefact retrieval.

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APPENDIX 1: HER SITES

Site No.	HER No.	Site Type	Description	Period	NGR
1	1168 SAM 279	Enclosure / Ring Ditch / Road / Settlement	Frenchfields Roman Road and Settlement, Penrith	Roman	NY 53531 29457
2	1169 SAM 388	Settlement	Sceugh Farm Settlement, Langwathby	Prehistoric, Roman	NY 54400 29900
3	2784 SAM 241	Tombstone	Tombstone Find, Brougham Castle, Brougham	Roman	NY 53700 29000
4	2837	Road, Settlement	Brougham Settlement and Roman Road	Roman	NY 54000 28700
5	2843	Cemetery	Brougham Cemetery, Brougham	Roman	NY 54530 28990
6	2848	Tombstone	Tombstone Find, Brougham	Roman	NY 53700 28500
7	2849	Settlement	Brougham Vicus	Roman	NY 54000 29000
8	2850	Findspot	Beaker from Brougham Castle Farm	Roman	NY 53920 28990
9	2851	Burial / Findspot	Human Burial and Coin Hoard	Roman	NY 53920 28990
10	2864	Findspot / Ring Ditch	Brougham Ring Ditches and Peterborough Ware Pottery Finds	Bronze Age	NY 54400 29000
11	2886	Milestone	Brougham Milestone	Roman	NY 53600 29100
12	2887 SAM 27780	Castle / Findspot / Fortified House / Moat	Brougham Castle, Brougham, Ruinous Buildings and Earthworks	Medieval	NY 53700 29030
13	2888	Findspot / Fort	Brougham (<i>Brocavum</i>) Roman Fort	Roman	NY 53830 28900
14	2889 SAM 242	Marching Camp	Brougham Roman Marching Camp Cropmarks	Roman	NY 54220 29160
15	2890	Temple	Countess Pillar Altar Find	Roman	NY 54500 28900
16	2891	Tombstone	Countess Pillar Tombstone Find	Roman	NY 54500 28900
17	2892	Findspot	Coin Find, Brougham Castle	Roman	NY 53700 29000
18	2906 SAM 410	Standing Monument	Countess Pillar Commemorative Monument	Post – Medieval	NY 54615 28960
19	2990 SAM 154	Settlement	Brougham Vicus Settlement, Brougham	Roman	NY 54290 29100
20	3407	Enclosure / Ring Ditch / Trackway	Frenchfield Enclosure	Unknown	NY 53750 29580

21	3411	Enclosure	Carletonhill Enclosure Cropmark	Romano – British	NY 53700 29800
22	3829	Circular Enclosure / Ditch	Brougham Enclosure Earthworks	Romano – British	NY 54500 29500
23	5090	Tombstone	Tombstone Find, Brougham	Romano – British	NY 54500 28900
24	5890	Circular Enclosure	Carleton Hall Circular Enclosure – Cropmark and Earthwork	Unknown	NY 53600 30200
25	5996	Dyke / Trackway	Sceugh Cropmarks, Langwathby	Unknown	NY 54800 30100
26	9899	Enclosure	Carleton Hill Enclosure Cropmark	Unknown	NY 53960 30140
27	11471	Findspot	Bracelet Find, Brougham Cemetery	Roman	NY 54400 29100
28	12014	Hotel / Mill Race / Saw Mill / Watermill	Brougham Mill Roofed Building and Earthworks	Post – Medieval	NY 53700 29150
29	13813	Findspot	Samian Find, Brougham Castle	Roman	NY 53700 29000
30	15272	Field System / Findspot	Brougham Field System Earthworks	Romano – British	NY 54700 29350
31	15410	Rifle Butts	Brougham Rifle Range	Post – Medieval	NY 54040 29265
32	15419	Pond	Maud's Pool Earthwork, Brougham	Unknown	NY 53600 29005
33	15420	Dyke	Westmorland Holme River Dyke Earthworks, Yanwath and Eamont Bridge	Post – Medieval	NY 52875 28960
34	16544	Site	Frenchfield Unclassified Cropmark	Unknown	NY 54000 29400
35	16791	Settlement	Fremington Settlement Site, Brougham	Roman / Early Medieval	NY 54700 28800
36	17729	Bloomery / Iron Works	Site of Brougham Ironworks	Post – Medieval	NY 53690 29180
37	19322	Findspot	Bow Brooch Find from Frenchfield Farm	Roman	NY 53400 29600
38	19667	Burial	Burial Casket / Coffin Find, Brougham	Roman	NY 54530 28990
39	41403	Milestone	Frenchfield Milestone, Langwathby	Roman	NY 54400 29700

APPENDIX 2: LISTED BUILDINGS

Site Number	LB SMR No	Name/Address of Building(s)	NGR	Grade
1	25033	Brougham Castle Bridge	NY 53834 29091	II
2	25034	Countess's Pillar	NY 54614 28957	II*
3	25035	Alms Table Beside Countess Pillar	NY 54618 28957	II*
4	25252	Frenchfield Farmhouse	NY 53505 29592	II
5	25253	Outbuildings and Cattle Shed at the Rear of Frenchfield Farmhouse	NY 53497 29630	II
6	25254	Cross Keys Public House	NY 52971 29678	II
7	25255	Candia, Carleton, Penrith	NY 52983 29707	II
8	25258	Carleton Hill	NY 53415 30135	II

APPENDIX 3: CONTEXT LIST

Context	Trench	Type	Description
100	All	Layer	Natural Sub-strata
101	7	Fill	Primary fill of [105]
102	7	Fill	Secondary fill of [105]
103	7	Fill	Tertiary fill of [105]
104	7	Fill	Final fill of [105]
105	7	Cut	Possible field boundary ditch
106	6	Masonry	Sandstone pieces to line drain [108]
107	6	Fill	Backfill of drain cut [108]
108	6	Cut	Land drain
109	6	Layer	Redeposited clay layer
110	6	Layer	Stone cobble alignment
111	6	Layer	Blue/grey clay layer
112	6	Layer	Organic layer
113	5	Masonry	Sandstone pieces to line drain [115]
114	5	Fill	Backfill of drain cut [115]
115	5	Cut	Land drain
116	2	Masonry	Sandstone pieces to line drain [118]
117	2	Fill	Backfill of drain cut [118]
118	2	Cut	Land drain
119	5	Layer	Redeposited clay layer
120	5	Layer	Blue/grey clay layer with burnt stones
121	All	Layer	Subsoil
122	All	Layer	Topsoil

APPENDIX 4: ILLUSTRATIONS

APPENDIX 5: PLATES



Plate 1: Trench 6 pre-excitation showing drain [108] and cobble layer (110), looking North



Plate 2: Close-up of drain [108] in Trench 6, looking North



Plate 3: Trench 5 pre-excavation looking North East



Plate 4: Slot excavated through drain [118] in Trench 2, looking North



Plate 5: Slot being excavated through Trench 6, showing the worsening weather conditions mid-week, looking North



Plate 6: Trench 6 on the final day of excavation, looking North



Plate 7: Trench 1 looking Southwest showing the variable natural sub-strata



Plate 8: Trench 4 after cleaning looking South East



Plate 9: Trench 9 after cleaning looking West-North-West



Plate 10: Trench 8 looking northwest, note the palaeo-channel in the foreground