



Proposed Pipeline from Cliburn to Whinfell Forest, Penrith Cumbria

Archaeological Desk- Based Assessment and Walkover Survey



Oxford Archaeology North

July 2008

United Utilities

Issue No: 2008-9/796

OAN Job No: L9993

NGR: NY 5890 2440 and NY 5710
2720

CONTENTS

CONTENTS	1
SUMMARY	3
ACKNOWLEDGEMENTS	4
1. INTRODUCTION	5
1.1 Circumstances of Project	5
1.2 Location, Topography and Geology	5
2. METHODOLOGY	7
2.1 Design Brief	7
2.2 Desk-Based Assessment	7
2.2 Aerial Photographs	7
2.4 Walkover	8
2.5 Archive	8
3. HISTORICAL BACKGROUND	9
3.1 Introduction	9
3.2 Background	9
3.3 Map Regression Analysis	14
4. WALKOVER SURVEY	17
4.1 Introduction	17
4.2 Results	17
5. GAZETTEER OF SITES	19
5.1 Listed Buildings	19
5.2 Gazetteer	20
6. SIGNIFICANCE OF THE REMAINS	39
6.1 Introduction	39
6.2 Criteria	39
6.3 Significance	41
7. IMPACT AND RECOMMENDATIONS	43
7.1 Impact	43
7.2 Impact Assessment	44
8. RECOMMENDATIONS FOR ARCHAEOLOGICAL MITIGATION	47

8.1 Introduction	47
9 BIBLIOGRAPHY	49
9.1 Primary Sources.....	49
9.2 Aerial Photographs	49
9.3 Secondary Sources.....	49
10. ILLUSTRATIONS.....	52
10.1 Figures.....	52
10.2 Plates.....	52
APPENDIX 1: PROJECT BRIEF	53

SUMMARY

Following proposals by United Utilities for the construction of proposed pipeline from Cliburn to Whinfell Forest, Cumbria (NGR NY 5890 2440 and NY 5710 2720), Cumbria County Council Historic Environment Service (CCCHES) an archaeological desk-based assessment and walkover survey relating to the application area. Oxford Archaeology North (OA North) was subsequently commissioned by United Utilities to undertake this work.

In total, 74 sites of archaeological interest were identified within the study area during the desk-based assessment and walkover survey, of which 26 had been previously recorded in the Cumbria HER. Sand Wath sand pit (Site **27**) was identified by inspection of historic maps. Sixteen listed buildings were identified within the study area and one Scheduled Monument; Wetheriggs Pottery (Site **10**).

The 74 identified sites comprised two prehistoric sites, two Romano-British sites, 45 medieval sites, 16 post-medieval sites, and seven sites of unknown date. Out of these sites, 27 were deemed likely to be affected by works associated with the proposed pipeline.

Topographic survey is recommended for earthwork Sites **60** and **61**. Evaluation trenching is recommended, within the pipeline easement, in the environs of the section of pipeline situated closest to the Leacet Hill Bronze Age remains and for the Cliburn ring ditch cropmarks (Site **15**). In addition to a permanent presence watching brief, targeted watching briefs on sites **2, 4, 5, 7, 9, 11-21, 23, 25, 27, 33, 34, 49, 51, 60, 61, 69** and **72** are also recommended. The watching briefs should be undertaken during topsoil stripping activities in areas of previously undisturbed ground.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank United Utilities for commissioning the project. Thanks are also due to Jo Mackintosh of the Historic Environment Record Office, Kendal, and all the staff of the County Record Office in Kendal for their assistance with this project.

Vicki Bullock undertook the desk-based assessment, Christina Robinson undertook the walkover survey and Mark Tidmarsh produced the drawings. Alison Plummer managed the project and also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 In February 2008, Cumbria County Council's County Historic Environment Service (CCCHES) was consulted by United Utilities regarding a proposed pipeline route between Cliburn and Whinfall Forest, Penrith (between NGR NY 5890 2440 and NY 5710 2720). CCCHES produced a Project Brief (*Appendix I*) which set out the requirements for an archaeological desk-based assessment and walkover survey
- 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 County Record Office in Kendal, and the archives and library held at OA North. This report sets out the results of the desk-based assessment and walkover survey in the form of a short document, outlining the findings, followed by a statement of the archaeological potential and significance, and an assessment of the impact of the proposed development. The significance criteria detailed in PPG 16 (DoE 1990) was employed during the assessment.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The proposed pipeline route begins at Oaklands on the outskirts of the village of Great Strickland, Cumbria and runs through the village with short branches splitting to the north along Airygill Lane and south along Priestclose Lane (Fig 1). The main route runs north-east along the road through the village and branches again to follow routes south-west and then south along Inmoor Road, with the main route running north-east and then north along Commonholme Lane, where it crosses Commonholme Bridge over the river Leith. The pipeline route splits again, with one branch following the main road east into Cliburn village, where it branches once more at the crossroads in the village centre with one section running north towards the Town head and one section running south towards Cliburn bridge. The route then changes direction north, traversing fields in a north-easterly direction rejoining the C3047. The other section running towards Brougham follows the C3047 as far as Wetheriggs pottery where it crosses the dismantled East Eden Railways and runs in a northerly direction traversing fields adjacent to Leacet Plantation and Whinfall Forest, terminating in a field close to Haversheaf Hall.
- 1.2.2 The pipeline runs through two distinct areas of topography and geology. The eastern section from Cliburn towards Penrith runs through the Eden Valley, a landscape characterised by a blend of undulating mixed farmland with woodland, mature hedgerows, drystone walls and distinctive villages of red sandstone (Countryside Commission 1998, 38). The agricultural landscape varies from open, relatively flat, river plain pastures and cropland in large fields subdivided by neat hedgerows to areas of steeply undulating pasture with mature hedgerows and red sandstone walls, semi-natural woodland and lowland heath (op cit, 39).

- 1.2.3 The section of pipeline from Clifton Moss to Great Strickland runs through an area known as Orton Fells, a landscape characterised by large expanses of moorland and limestone upland with settlements restricted to the lower land around the central upland (Countryside Commission 1998, 56). There are extensive stretches of typical limestone scenery, with expanses of limestone pavement, rock outcrops and grasslands.
- 1.2.4 The area around Great Strickland, forms a transition between the higher limestone farmland and the improved undulating pasture on the margins of the Eden Valley. The rolling topography, between 180m and 300m AOD, consists of improved pasture bounded by limestone walls and fences with occasional hedgerows (*op cit*).
- 1.2.5 The Eden Valley, an area of comparatively low-lying ground which lies between the Lake District fells to the west and the Pennine escarpment to the east, coincides closely with the outcrop of sandstones and mudstones of the Permo-Triassic age. These are generally concealed by glacial deposits. The Orton Fells are underlain by rocks of Lower Carboniferous age. Limestone, forms an important part of the geological sequence and its effect on the landscape is evident in the extensive limestone scars and pavement. Also present are beds of sandstone and shale. Boulder clay deposited from ice sheets during the last glacial period, covers part of the area concealing underlying solid rocks (Countryside Commission 1998, 57). The sealing deposits are typical stagnogley soils (Ordnance Survey 1983).

2. METHODOLOGY

2.1 DESIGN BRIEF

2.1.1 A Project Brief (*Appendix 1*) was submitted by CCCHES in response to a proposal by United Utilities for a pipeline route from Cliburn to Whinfell Forest, Penrith. The project brief was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 DESK-BASED ASSESSMENT

2.2.1 A study area that extended 0.25km to each side of the proposed pipeline, to form a corridor 0.5km wide, was examined in order to gain an understanding of the historical and archaeological background of the area, and to assess the potential impact of the development on sites of archaeological significance. The sites identified within this study area are presented in the site gazetteer (*Section 5*; Fig 2). A general historical and archaeological background of the area was compiled and map regression analysis was undertaken.

2.2.2 Several sources of information were consulted as part of the assessment, which have provided a good understanding of the developmental history of the study area. The results were analysed using the set of criteria used to assess the national importance of an ancient monument (DoE 1990). Archive sources that were consulted include:

2.2.3 ***Historic Environment Record (HER), Kendal:*** the HER is a list of all known sites of archaeological interest within Cumbria, and also holds copies of aerial photographs dating from the 1940s through to the present day. The HER is the primary source of information for a study of this kind.

2.2.4 ***County Record Office (CRO), Kendal:*** the record office holds cartographic and documentary sources relating to the study area.

2.2.5 ***Oxford Archaeology North:*** OA North has an extensive archive of secondary sources relevant to the study area, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.

2.2 AERIAL PHOTOGRAPHS

2.3.1 Aerial photos (prints) were examined at the HER. There was a considerable collection of aerial photographs of Great Strickland. The photographs highlighted the medieval field system, many of which showed the extent of the strip enclosures, ridge and furrow and possible earthworks surrounding the village as recorded in the HER. The photographs also highlighted the larger, more irregular fields with curvilinear boundaries beyond the immediate vicinity of the village extending towards Melkinthorpe Wood.

2.4 WALKOVER

- 2.4.1 Following the desk-based assessment a level I-type survey (*Section 4*) was undertaken to relate the existing landscape to research findings. This encompassed a one hundred metre corridor along either side of the pipeline, walked in a systematic fashion. Archaeological features identified within the landscape were recorded using the relevant OA North *pro forma*, and the features located using differential GPS survey, which can achieve an accuracy of +/- 5m with respect to the OS national grid.

2.5 ARCHIVE

- 2.5.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the County Record Office, Kendal on completion of the project.

3. HISTORICAL BACKGROUND

3.1 INTRODUCTION

3.1.1 The following section presents a summary of the historical and archaeological background of the general area. This is presented by historical period (Table 1), and has been compiled in order to place the study area into a wider archaeological context.

Period	Date Range
Palaeolithic	30,000 – 10,000 BC
Mesolithic	10,000 – 3,500 BC
Neolithic	3,500 – 2,200 BC
Bronze Age	2,200 – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – c1750
Industrial Period	cAD1750 – 1901
Modern	Post-1901

Table 1: Summary of British archaeological periods and date ranges

3.2 BACKGROUND

3.2.1 **Prehistoric Period:** the earliest known occupation in the region is found in the natural shelter of the cliffs along the coast. Kirkhead Cave, to the east of the study area, has produced evidence of occupation during the Later Upper Palaeolithic period. Palaeolithic blades have also been recovered from Lindale Low to the north-east of Kirkhead (Salisbury 1992), which represent the most northerly recorded Palaeolithic sites in the country (Hodgkinson *et al* 2000). There is evidence of coastal exploitation in the Mesolithic period, together with the creation of small-scale clearings and the use of fire to provide grassland to attract game (*ibid*). The evidence for Mesolithic activity across the region is heavily influenced by the exposure of diagnostic material, and concentrations of fieldwork in particular areas (Hodgson and Brennand 2006, 25). In western Cumbria, Later Mesolithic flint scatters have been located on the raised beaches of the maximum marine transgression and along clifftops north of St Bees (Cherry & Cherry 1983). An assemblage of Early Mesolithic microliths, some manufactured from volcanic tuff, have been recovered from Bart's Shelter, along with a bone or antler point dated to 6210-6190 cal BC (Hodgson and Brennand 2006, 26). Mesolithic flintwork has also been identified on the limestone in eastern Cumbria together with an early find of

bone harpoon heads at Crosby-on-Eden (Cherry & Cherry 1995). Assemblages of Late Mesolithic and Neolithic date have been found sealed beneath burial mounds at Borwick and on the banks of the River Kent at Levens Park (Cherry & Cherry 2000).

- 3.2.2 There are no known sites dating to these periods within the study area. The area around Brougham, Clifton and Hackthorpe, in close proximity to the study area, contains one of the highest concentrations of prehistoric monuments in Cumbria, with important sites such as Mayborough Henge (HER 2867) and Arthur's Round Table (HER 2868) at Eamont Bridge. A stone avenue has been recorded on Askham Fell (LUAU 1997), and an Early Bronze Age enclosure and cremation cemetery has been recently excavated on Leacet Hill (HER 16692; James 2006). The Leacet Hill site occupies a dry valley situated between the north slope of Leacet Hill (201 OD) and the south slope of an unnamed hill just to the north, the two form an isolated and prominent landmark in the otherwise rolling landscape of the Eden Valley (James 2006), which is situated just to the east of the northern section of the pipeline.
- 3.2.3 Leacet Hill is both topographically prominent and archaeologically significant having produced a Neolithic axe-hammer (HER 2857), found on the eastern slopes and a Bronze Age stone circle enclosing a cairn from the south-western flank of the hill (HER 2872). Two structures, represented by post-hole clusters on the north-western side of the hill may well be of a later date. The site was excavated in 1997 by Archaeology South-East. The excavation revealed a linear boundary and possible cremation cemetery with a limited amount of dateable pottery. A possible interpretation of the linear feature is that it formed part of an enclosure. The excavated evidence indicated at least two phases of use, suggesting a certain amount of longevity (James 2006). Both the linear boundary and the cremation cemetery are dated by single C₁₄ to the early second millennium BC (Early Bronze Age). No pottery or other artefacts were recovered with the cremations which may indicate that the remains were buried in some sort of organic container. A line of pits proved difficult to interpret but they are believed to be of prehistoric date (James 2006). Iron Age and Romano-British settlement was also pronounced in the area, such as the large, triple-rampart hillfort at Castlesteads (HER 2900; Collingwood, 1926), to the south-west. The route across Stainmore has long been recorded as one of the main Trans-Pennine routes, with a pattern of farmsteads along the route from later prehistory into the Roman period (LUAU 1997).
- 3.2.4 In total, four sites of prehistoric, or probable prehistoric date have been identified within the study area. An axe hammer (Site **06**) was found in 1889 near Bradley Farm, Cliburn and the site is marked on the Ordnance Survey Second Edition map of 1898 (Fig 3). The axe hammer was believed to be of Bronze Age date although its present location is unknown. A microlith of Mesolithic date was also found within the study area (Site **12**) but it is possible this is the same site recorded as HER 5490 (Site **13**) and comprised a scatter of eight flint flakes and was found within the parish of Cliburn but no other details are known. Site **14**, another flint scatter comprised eight flakes and was also found within Cliburn parish, although the exact provenance is unknown. Site **15**, a series of unclassified ring ditches and cropmarks, are visible on aerial photographs and may be of prehistoric date.

- 3.2.4 **Romano-British Period:** Cumbria has examples of most types of Romano-British settlement types, a large proportion of which are situated to the south and east of Penrith (Hodgson and Brennand 2006). There are numerous sites and finds dating to the Roman period in the area. The current A66 follows the route of a Roman road, which formed one of the main Trans-Pennine routes (Collingwood 1926). Brougham Roman Fort at the western end of this route is the focus of Roman activity in the area. Although very little is known about the site (LUAU, 1997), it was named *Brocavum* (Clare 1981) and was established in the second century AD, remaining occupied until the fourth century (LUAU 1997). To the east of the fort was the likely location of the *vicus*. This may have comprised dispersed settlement, focusing upon the fort (*ibid*). It was reported by Stukeley (1776) that numerous finds and remains existed, but he fails to pinpoint an exact location. To the east-north-east of the *vicus* was a cremation cemetery. This was excavated in the 1960s in advance of carriageway works (Charlesworth 1966-7), revealing remains dating from the second to fourth centuries AD. To the north of the *vicus* are the remains of a Roman temporary camp; while to the south of the Roman fort are cropmarks of a double-rectilinear settlement. A Roman road may also have run through this area, heading towards the fort from the south. Two further burials have been found in the vicinity, either associated with the *vicus*, or the excavated Roman cemetery (*ibid*). The remainder of the Roman sites identified comprise findspots of tombstones, milestones, and an altar.
- 3.2.5 Within the study area Brownhow Roman Road (Site 09) was identified as the only putative site of Romano-British date. The field adjacent to Brownhow farm contains an amorphous ‘lump’. However, the presence of the road has never been irrevocably proved.
- 3.2.6 **Early Medieval Period:** evidence is very sparse in Cumbria for pre-Conquest activity, with place-names being the main indication of early medieval presence. To the south-west of the study area, two cross shafts dating to the eighth or ninth centuries were found at Lowther Castle, and several Scandinavian hogback grave markers are located in central Penrith (OA North 2005). Further afield settlement dating to the sixth century has been recorded at Birdoswald, whilst Dacre on Ullswater was a monastic centre from the sixth to eleventh centuries (LUAU 1997). The challenge of recognising sites which do not have an abundance of associated material culture, remains an issue relevant to rural sites of most pre-industrial periods in the region (Brennand 2006). The most secure recently excavated example of an early medieval rural settlement is at Fremington, just to the east of Brougham, adjacent to the road over Stainmore and approximately 10km from the study area. Four sunken-featured buildings were identified in 1991 during pipeline construction. These were the first, and to date, the only *grubenhäuser* from a rural context in the region. A corner of what appeared to be a post-built rectangular hall-type structure and the remains of a kiln, filled with more than 100 sherds of crudely made pottery was also identified (Newman 2006, 98).
- 3.2.7 There are no known sites dating from the early medieval period within the study area.
- 3.2.8 **Late Medieval Period:** in the wider locality, surrounding the study, late medieval settlement activity was focused on Brougham, Clifton and

Hackthorpe. The earliest building on the castle at Brougham was the keep, established in 1170 by John de Veteripont, adding some of the outworks between 1203-4 (Collingwood 1926). Roger de Clifford constructed the outer gatehouse between 1270 and 1310. It was then extended in the 1380s by his great grandson of the same name (*ibid*). It was thought that the castle was destroyed in 1403 during the Scottish raids (Rollinson 1978). The castle was not fully restored until Lady Anne Clifford's work on it in the mid-seventeenth century (Clare, 1981).

- 3.2.9 To the south-west of the castle, north-east of the Clifton Cross junction, lie the remains of the Deserted Medieval Village (DMV) of Brougham. The village was established between 1216-18, when the original Brougham Village was relocated to allow the expansion of Robert de Veteripont's hunting grounds (CCC SMR 2846), and it is mentioned in the Lay Subsidy Roll of 1332. The village was situated to the south-west of Brougham around the site of St Lawrence's chapel and graveyard, although no remains are visible (NY 03 SE 16; NMR 9038). The village was subsequently demolished in the 1670s-80s to make way for a Park attached to Brougham Hall (*ibid*). Other lynchet earthworks may relate to the DMV. Brougham Hall lies to the north-west, of the study area. It was established in the fourteenth century, then fully rebuilt in 1829 (Collingwood 1926).
- 3.2.10 Clifton is situated 7km to the west of the study area. The name derives from the Middle English 'farmstead on the cliff', and the parish and rectory were under the patronage of the Bishop of Carlisle (LUAU 1997). The village was most likely established at the same time as the Church of St Cuthbert, which had been constructed by the twelfth century. The chancel was then rebuilt in the thirteenth century, while the north aisle was added in the fourteenth (Nicolson & Burn 1777). The village itself may be a shrunken-medieval village, as numerous earthworks and cropmarks have been identified such as ridge and furrow, holloways, lynchets, boundaries and other cultivation features associated with medieval villages. This was a common occurrence in northern England during the fourteenth and fifteenth centuries (Winchester 1987), and normally the result of bouts of plague, livestock disease, harvest failures and constant warring with Scotland (*ibid*).
- 3.2.11 The only remaining feature of Clifton Hall is the tower house. The tower itself dates to the fifteenth or sixteenth centuries, while the hall was rebuilt in the fourteenth (RCHME 1936).
- 3.2.12 The village of Hackthorpe situated 2.1km to the north-west of the study area is first mentioned in the thirteenth century (Nicolson & Burn, 1777). An historical document dating to 1361, suggests that Hackthorpe was in Lowther Parish but in the possession of Sir Thomas de Strickland (OA North 2005). In 1535 the manor was purchased by the Lowther Family, however no documents of their tenure remain (OA North 2005).
- 3.2.13 Morphologically, the field pattern around Hackthorpe is typical of the strip field system of the north-west of England, and various earthworks and cropmarks survive to the east and west of the main road, and to the south of the central junction (*ibid*). Work undertaken by OA North in 2001 produced

remains dating to the thirteenth and fourteenth centuries, indicating that Hackthorpe was also a shrunken-medieval village (OA North 2002). Further ephemeral features were discovered by CFA in follow excavations, supporting the theory (CFA 2003).

- 3.2.14 This pattern can also be seen within the study area, with the villages of Great Strickland and Cliburn. The genesis of nucleated, planned villages with strip-like crofts extending away from the central communal space, often consisting of two rows with a highway between has been placed in the twelfth century as part of the consolidation of Norman power (Roberts 1993).
- 3.2.15 Cliburn is a small village situated in the Eden Valley halfway between Penrith and Appleby. The parish is bounded on the east, south and west by the Parish of Morland and on the north by those of Lowther, Clifton and Brougham. A farm called Winderwath was entirely detached and separated from the rest of the parish by Brougham. The Eden Valley railway ran through a portion of the parish (Bulmer 1895). The main street runs downhill from north to south and is lined with sandstone buildings, the stone for which would have been quarried in the nearby Whinfell Forest. There has probably been a settlement here since the early medieval period. Cliburn Hall (Site **23**), on the river bank at the foot of the village and now a modernised farmhouse, was built in the fourteenth century as a pele tower by Robert De Cliburn, the lord of the manor. The old hall was arranged around the core of the Pele tower and had sixteenth century additions. St Cuthbert's Church, Cliburn, has a twelfth century nave and chancel in the Norman style. A brief history of the church inscribed at the back of an old church register point to the thirteenth century as the date of foundation. Detailed information on Cliburn and Great Strickland is unfortunately, fairly scarce. The manor of Cliburn was divided anciently into two divisions 'Cliburn Talebais' and 'Cliburn Hervey', presumably derived from its owners (*ibid*).
- 3.2.16 The township of Great Strickland also included Little Strickland and had been recorded in Domesday Book as '*Stircaland*' in the possession of Gilmichel. The township had also been known as 'young cattle or stirks. The village lies approximately six miles south-south-east of Penrith (Bulmer 1895).
- 3.2.17 **Post-medieval Period:** in Cliburn the majority of the buildings date from the eighteenth or nineteenth centuries. St. Cuthbert's church was restored in 1849. The rectory had 30 acres of ancient glebe. After the enclosure of the common in 1807, there were 189 acres allotted as commutation for the tithes of the parish (Whellan 1860 789). In the porch of the church there are 'several curious relics' (Bulmer 1905) found nearby which are presumed to be of Roman origin. The earlier church was appropriated at an early date to St Mary's Abbey, York. A Wesleyan chapel was erected in 1809 and superseded in 1881. Town Head is a small hamlet just north of the village. A school was erected in Great Strickland in 1790 and the Society of Friends once had a meeting house here but this was disused and converted to a cottage.
- 3.2.18 Wetheriggs Pottery (Site **10**) was established in 1855 and was originally a brick, tile and pipe works supplied by a rich seam of red clay at Clifton Dykes, and coal from the pits of West Cumbria. Almost all the wares produced were

for local use. During the 1860's with the arrival of the Schofields from the North East some innovations occurred, and Wetheriggs started producing house wares.

- 3.2.19 The Eden Valley Railway Company was formed in 1856 at a meeting in Appleby, then the county town of Westmorland, to build the line between Kirkby Stephen and Clifton just south of Penrith). This formed a link between the Darlington and Tebay (The South Durham and Lancashire Union Railway, or Stainmore line), and Penrith, and opened to passengers on 7th June 1862.
- 3.2.20 The name of Clifton derives from the Middle English 'farmstead on the cliff', and the parish and rectory were under the patronage of the Bishop of Carlisle (LUAU 1997a). The village was most likely established at the same time as the Church of St Cuthbert, which had been constructed by the twelfth century. The chancel was then rebuilt in the thirteenth century, while the north aisle was added in the fourteenth (Nicolson & Burn, 1777). The village itself may be a shrunken-medieval village, as numerous earthworks and cropmarks have been identified such as ridge and furrow, holloways, lynchets, boundaries and other cultivation features associated with medieval villages (Cumbria County Archaeology Service (CCAS) undat). This was a common occurrence in northern England during the fourteenth and fifteenth centuries (Winchester, 1987), and normally the result of bouts of plague, livestock disease, harvest failures and constant warring with Scotland (*ibid*).
- 3.2.21 The only remaining feature of Clifton Hall is the tower house. The manor was first documented in the mid-late twelfth century, when it was passed into Gilbert Engayne by Sir Hugh de Morville (Nicolson & Burns, 1777). It was held by the Engayne family until the fourteenth century, when the heiress, Eleanor Engayne, married William de Wybergh, and the estate passed to his family (*ibid*). The Wybergh's were in possession until the Civil War (LUAU, 1997a). The tower itself dates to the fifteenth or sixteenth centuries, while the hall was rebuilt in the fourteenth (RCHME, 1936).

3.3 MAP REGRESSION ANALYSIS

- 3.3.1 ***Inclosure Award for Cliburn, WQR/1/15, 1820:*** the Inclosure Award for Cliburn shows the divisions of land in and around the village and who had purchased the land. The landowner is predominantly the Earl of Lonsdale. The map also show the Hall and Cliburn mill. It also shows those areas of the landscape allocated as land for tithes. The equivalent Award was not available for Great Strickland.
- 3.3.2 ***Tithe map for Great Strickland, WDRC/8/167, 1838:*** although there was a tithe map for Cliburn village, on investigation the map was not detailed enough to warrant inclusion in the report. However, the tithe map for Great Strickland was comprehensive and offered further insights into the layout of the village before the first Ordnance Survey (OS) maps were published. The organised layout of the field system is evident and comprises rows of smaller, square plots behind the buildings along the road and lanes with narrow, long, strip fields and enclosures behind these plots. In a number of the fields rectangular 'field houses' are shown. To the west of the village the River Leith

forms a natural boundary and Strickland Mill is shown. A pond is marked at the western end of the village at the junction of Airygill Lane and Priestclose Lane. A 'Tithe Barn' is marked on the western edge of the village adjacent to the pond.

3.3.3 **Ordnance Survey First Edition 6" to one mile Westmorland Sheet VIII, 1863 (Fig 3):** the village of Great Strickland follows a recognisable pattern of medieval villages with development along the main thoroughfare and ribbon development along several lanes emanating from the main road. The medieval field systems and strip enclosures surrounding Great Strickland (Site 02) are clearly visible on the First Edition map. The narrow, long, rectangular fields emanate from both the main road through the village and the lanes such as Priestclose Lane and Airygill Lane. To the north of the village adjacent to Melkinthorpe Wood the strip fields are marked as 'Great Strickland Field'. There are also earthworks marked on the map between the National School and the Endowed School on the western periphery of the village. The field boundaries appear to be mainly tree-lined. The strip field system changes to more an irregular field system with curvilinear boundaries on the eastern periphery of the village at Town End. Brackenber Quarry and limekiln (Site 04) are shown. Bradley Farm (Site 05) is marked on the map, as is Street (Site 07) and Street House. Commonholme Bridge is also shown (Site 08). The regular, rectangular, narrow strip fields around Cliburn village are clearly visible but do not appear to be as extensive as those surrounding Great Strickland. Cliburn Hall (Site 23) is shown with a date of 1577. There are trees in the field to the north-west which could possibly mark a former field boundary. Further north, Leacet Hill is marked, in an area of relatively open, unenclosed land. The Eden Valley railway (Site 11) and Wetheriggs Pottery (Site 10) are marked on the map although the pottery is known as 'Wetheriggs Brick and Tile Works'.

3.3.4 **Ordnance Survey First Edition 25" to one mile Westmorland Sheet VIII, 2, 3 and 7, 1866:** the long, narrow strip fields surrounding the village of Cliburn and the larger fields beyond without hedgerows/tree-lined boundaries are visible on the map. To the north, the area is defined by large, open and irregular fields with a gradual transition to heathland and rough pasture. This is also the predominant landscape around Leacet Hill, where there are very large, irregular field boundaries. In an area just south of Whinfell Farm are two small sub-circular wooded enclosures. There is also a square enclosure to the west of Leacet Hill. Sand Wath sandpit (Site 27) is marked, as is Brownhow (Site 09).

3.3.5 **Ordnance Survey Second Edition 25" to one mile Westmorland Sheet VIII, 2, 6 and 10, 1898 (Fig 4):** Great Strickland has developed along the main thoroughfare and along the lanes which emanate from the village centre. There are long, narrow strip fields either side of these routes. Brackenber Quarry and limekiln are marked (Site 04). To the east of the village on Great Strickland Moor the site of a "stone hammer found 1889" is recorded. Both Street Road (Site 07) and Commonholme Bridge (Site 08) are marked. One of the sub-circular enclosures marked near Whinfell Farm, marked on the First Edition OS map, is marked on this map as a quarry. The other sub-circular enclosure

from the First Edition is no longer marked. Within Leacet Plantation a ‘stone circle’ is marked on the southern boundary of the wooded area. A small square building on Leacet Hill has a number of small additions and the square enclosure is marked to the north-east, as are two rectangular buildings in an adjacent field. The Eden Valley railway is still shown and interestingly, on this map, the fields have been stamped with their usage, predominantly arable and grass, with some of the field boundaries stamped as ‘dead’ or ‘live’. Sand Wath and the ‘Old Sand Pit’ are shown (Site **27**). The sand pit is defined as a long, narrow sub-rectangular earthwork with a separate circular pit to the west. Brownhow is marked (Site **09**) and there is a footbridge over Butts Sike.

3.3.6 *Ordnance Survey Third Edition 6” to one mile Westmorland Sheet VIII, SW, NE, NW, 1920 (Fig 5)*: the stone circle close to Leacet Hill Plantation is still marked on this map, as are the enclosures and buildings in surrounding fields. One of the enclosures is marked as ‘old quarry’. Wetheriggs Pottery (Site **10**) is shown showing the change in use of the buildings as this was marked as a brick and tile works on the OS First Edition map. A reservoir and ‘old clay pit’ are shown to the north of the Eden Valley railway (Site **11**). The Sand pit (Site **27**) is still marked, as is Brownhow (Site **09**). South of Salter Hill there is a coal depot shown at Cliburn Station and south of the railway the road runs towards to Cliburn village. The rectangular, long, narrow strip fields along lanes radiating from Cliburn, as far as Cliburn Mill are still evident. The landscape of the Great Strickland area remains dominated by strip fields. There are old quarries to the north of Town Head (west of the village). Brackenber Quarry and limekiln (Site **04**) are marked, as is the site of the stone axe hammer find on Great Strickland Moor (Site **06**).

3.3.7 *Ordnance Survey 6” to one mile sheet NY 52 NE Cumberland and Westmorland, 1957*: Whinfell Forest has expanded to include Leacet Plantation. Further south, around the two villages all of the sites mentioned above are still shown. To the north, it was possible to study the area around Haversheaf Hall where the proposed pipeline route terminates. The Roman road is marked, as is Lightwater smithy and ‘Highground’ but there is little else of significance in this area identifiable through cartographic analysis.

4. WALKOVER SURVEY

4.1 INTRODUCTION

- 4.1.1 The walkover survey aimed to determine both the survival of above ground remains of sites recorded during the rapid desk-based assessment and also to identify previously unrecorded sites along the proposed pipeline route.
- 4.1.2 All of the fields adjacent to the proposed pipeline route were walked systematically and the ground conditions were generally good for identifying sites by walkover survey. The vast majority of fields inspected were under pasture and had a covering of short grass. Several fields were under crop or ploughed and this made the identification of features difficult.

4.2 RESULTS

- 4.2.1 In total, 56 sites were identified during the walkover survey, nine of which were previously identified within the desk-based assessment. The majority of the features identified were medieval agrarian features, such as the remains of former ridge and furrow and field boundaries, that relate to the shrunken medieval villages of Cliburn (Site **21**) and Great Strickland (Sites **2** and **24**).
- 4.2.2 The most common feature-types encountered during the walkover survey were medieval ridge and furrow (Sites **31**, **37**, **40-41**, **44-47**, **49-51**, **53**, **56**, **60**, **69** and **71**; see plates 1-4) and associated features, such as burgage plot/strip field boundaries and headlands (Sites **43**, **52**, **55**, **57**, **58**, **59**, **60**, **65**, **67**, **68** and **71**). All of these, with the exception of Site **65** (strip field), are related to the shrunken medieval villages of Cliburn (Site **21**) and Great Strickland (Sites **2** and **24**).
- 4.2.3 Other features that relate to the shrunken villages are hollow ways/trackways (Sites **29**, **30**, **36** and **42**) and Maudy Lane (Plate 5; Site **48**). In addition to these, there are also two sets of earthworks (Sites **35** and **70**; Plates 8 and 9) and two stone-capped wells (Sites **34** and **74**; Plates 10 and 11).
- 4.2.4 The site of the post-medieval Wetherriggs Pottery (Site **10**) was not within the walkover study area, but the extraction pit (Site **66**) for the clay for the pottery did lie within the study area. This was identified through a reconstruction sketch within the pottery (Plate 12). The pit is no longer open, but is seen in the landscape in a field opposite the Wetherriggs Pottery.
- 4.2.5 There are five post-medieval agrarian features, including three removed boundaries (Sites **28**, **63** and **73**) and drainage ditches (Sites **62** and **64**). Other post-medieval features seen within the landscape are sandstone-built bridges (Sites **8** and **22**), quarries (Sites **01** and **04**; Plate 13) and the disused Eden Valley railway (Site **11**; Plate 14). These last features were all identified by the desk-based assessment.

4.2.6 The five remaining sites are features of indeterminate function and date and are mainly earthworks (Sites **32**, **33**, **61** and **72**) and a linear boulder feature (Site **54**; Plate 15).

5. GAZETTEER OF SITES

5.1 LISTED BUILDINGS

5.1.1 There are 16 Listed Buildings, all Grade II, located within the study area, none of which would be impacted on by the proposed pipeline route. The listed buildings have not been added to the gazetteer, but Table 3 gives a brief description and location for each. The listed buildings are mainly located in Great Strickland.

HER No	Description	Grade	NGR
20532	Church of St Cuthbert, Cliburn: Parish church of twelfth century date with extensive late nineteenth century restoration	II	358770 524490
25056	Brownhow, Melkinthorpe, Clifton: Farmhouse of late eighteenth early nineteenth century	II	355854 525734
74236	Wetheriggs Pottery, Wetheriggs, Clifton: Kiln, workshops and outbuildings. Built in 1885 as a brick and tile works for Brougham estate	II	355475 526288
25081	Taylor's Farmhouse, Great Strickland: Farmhouse and ramp barn probably of seventeenth century date with later alterations	II	355696 522815
25082	Holly House, Great Strickland: a house dated and inscribed over the entrance J & ML MDCCXIX.	II	355804 522896
25083	Barn east of Holly House: dated and inscribed over entrance 1767, listed for group value with Holly House	II	355822 522911
25084	Old Midtown Farmhouse, Great Strickland and barn adjoining: farmhouse and barn of mid eighteenth century date.	II	355950 522980
25085	Ivy House, Great Strickland: house dated and inscribed over entrance T & F 1744	II	356083 523013
25086	Town Head Farmhouse, Great Strickland: farmhouse dated and inscribed J & HA 1826	II	355610 522735
25087	Fern Cottage and adjoining barn/stable, Great Strickland: former farmhouse now a private residence and former barn/stables adjoining	II	355640 522759
25088	Corner cottage, Great Strickland: house of early nineteenth century date. Listed for group value with Fern cottage and barn adjoining	II	355631 522750
25089	Midtown cottage, Great Strickland: a house of mid eighteenth century date.	II	355883 522919

25090	Midtown farmhouse and adjoining barn, Great Strickland: farmhouse and barn adjoining. The farmhouse is of early nineteenth century date and the barn is of eighteenth century date. Included for its group value with Sunnyside	II	355937 522925
25091	Sunnyside, Great Strickland: a house of early nineteenth century date	II	355967 522924
25092	Bradley and barn adjoining, Great Strickland: a farmhouse and barn of mid eighteenth century date.	II	357357 523156
25095	St Barnabas' Church, Great Strickland: Anglican church constructed in 1870	II	356207 522998

Table 2: Listed Buildings within the study area

5.2 GAZETTEER

Site number	01
Site name	Oaklands Quarries, Great Strickland
NGR	NY 55490 22870
HER No	15498
Statutory Designation	None
Site type	Quarry
Period	Post-medieval
Sources	OS Second Edition 25" Sheet VIII 10, walkover
Description	Oaklands Quarry lies beside a track leading from Townhead, Great Strickland, to Oak Gill Wood.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	02
Site name	Great Strickland Medieval Village,
NGR	NY 56000 23000
HER No	6762
Statutory Designation	None
Site type	Shrunken Village
Period	Medieval
Sources	Aerial Photographs CCC 2824,5 and 2825, 28-33, walkover survey
Description	Area for Great Strickland Medieval Village. Comprises strip enclosures and ridge and furrow.
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works if the pipeline deviates from the highway, as is the case at the eastern end of the village.

Site number	03
Site name	Maudy Lane Quarry, Great Strickland
NGR	NY 55725 22650
HER No	15496
Statutory Designation	None
Site type	Quarry
Period	Post-medieval
Sources	OS Second Edition 25" Sheet VIII 10

Description Maudy Lane Quarry lies beside Maudy Lane, south of Great Strickland
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 04
Site name Brackenber Quarry, Great Strickland
NGR NY 56825 22820
HER No 15484
Statutory Designation None
Site type Quarry
Period Post-medieval
Sources OS First Edition 6" Sheet VIII; OS Second Edition 25" Sheet VIII 10, walkover survey
Description Brackenber Quarry lies beside the road which travels east from Great Strickland.
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number 05
Site name Bradley Farm, Great Strickland Moor, Great Strickland
NGR NY 57350 23150
HER No 41868
Statutory Designation None
Site type Farmstead
Period Post-medieval
Sources Listed Building index
Description Farmstead comprising a mid eighteenth century farmhouse with attached barn (LB 25092) and detached mid or late eighteenth century barn to the rear (HER 25093).
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number 06
Site name Axe Hammer Find, Great Strickland
NGR NY 57400 23100
HER No 3366
Statutory Designation None
Site type Findspot
Period Bronze Age
Sources Ordnance Survey Second Edition map, 1898
Description A stone axe hammer recorded on the OS map. The present whereabouts are unknown.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works

Site number 07
Site name Street Road, Great Strickland
NGR NY 57450 23870
HER No 15503
Statutory Designation None
Site type Road
Period Possibly Roman or Medieval
Sources Ordnance Survey First Edition 6" Sheet VIII, Ordnance Survey Second Edition Sheet VIII 6

Description	Street Road forms part of the road from Newby to Penrith. Documentary evidence begins in 1647, but it could be of Roman or medieval origin.
Assessment	The site is crossed by the proposed pipeline route and may be affected by the works. It will be affected if the ground disturbance caused by the pipeline is within the existing highway.

Site number	08
Site name	Commonholme Bridge, Cliburn
NGR	NY 57625 24750
HER No	15506
Statutory Designation	None
Site type	Road Bridge
Period	Post-medieval
Sources	Ordnance Survey First Edition 6" Sheet VIII, Ordnance Survey Second Edition Sheet VIII 6, walkover survey
Description	Commonholme Bridge crosses the River Leith west of Cliburn. It is mentioned in documents from 1679.
Assessment	The site will not be affected by the works.

Site number	09
Site name	Brownhow Roman Road, Clifton
NGR	NY 56000 25900
HER No	2838
Statutory Designation	None
Site type	Road
Period	Roman
Sources	HER
Description	This is the course of a possible Roman road although there is firm evidence of its presence. The field next to Brownhow Farm contains an amorphous 'lump', which does not suggest an agger.
Assessment	The site lies outside of the proposed pipeline route but due to its linear nature may be affected by the works.

Site number	10
Site name	The Old Pottery Kiln, Wetheriggs Pottery
NGR	NY 55461 26299
HER No	2855
Statutory Designation	None
Site type	Listed Building and Scheduled Ancient Monument (SM No 399).
Period	Post-medieval
Sources	Ancient Monuments Index and HER and Ordnance Survey Index, walkover survey
Description	Wetheriggs Pottery traditionally produced patterned Westmorland salt-glazed earthenware. The kiln and mixing pit are complete. The whole belongs to the first half of the nineteenth century. Reference has also been made to a 'horse wheel-house'. According to the Ordnance Survey the pottery was built in 1855 and since 1952 has been worked as a studio pottery. Apart from the main building the pottery has a range of buildings, which together with their fixtures and fittings are an integral part of the pottery works. The kiln, workshops, drying shed, kiln room, steam house and blunger are Listed Grade II (LB 74236).
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site number	11
Site name	North Eden Railway/ North Eastern Railway, Darlington Section, Eden Valley Branch
NGR	NY 55665 26203
HER No	19990
Statutory Designation	None
Site type	Railway
Period	Post-medieval
Sources	Ordnance Survey First Edition 6" map and unpublished archaeological reports, walkover survey
Description	The line of the North and Eastern Railway (Eden Valley Branch) stretches from NY 6877 2082 to NY 7416 1444. Work began on the railway in 1858 and it opened for passengers in 1862. The line closed in 1962.
Assessment	The site is crossed by the proposed pipeline route and may be affected by the works.

Site number	12
Site name	Flint Find, Cliburn Parish
NGR	NY 58000 25000
HER No	3555
Statutory Designation	None
Site type	Findspot
Period	Mesolithic
Sources	HER
Description	A microlith recorded as found in Cliburn parish but this may possibly be the same site as HER 5490.
Assessment	The site is close to the proposed pipeline route and may be affected by the works, unless the ground disturbance caused by the pipeline remains within the existing highway.

Site number	13
Site name	Flint Finds, Cliburn Parish
NGR	NY 58000 25000
HER No	5490
Statutory Designation	None
Site type	Flint Scatter
Period	Unknown
Sources	HER
Description	Eight flint flakes found in Cliburn parish. There are no other details available.
Assessment	The site is close to the proposed pipeline route and may be affected by the works, unless the ground disturbance caused by the pipeline remains within the existing highway.

Site number	14
Site name	Flint Finds, Cliburn Parish
NGR	NY 58000 25000
HER No	2855
Statutory Designation	None
Site type	Flint Scatter
Period	Unknown
Sources	Ordnance Survey Index, HER
Description	Eight flint flakes from Cliburn parish now held at Tullie House.
Assessment	The site is close to the proposed pipeline route and may be affected by the works, unless the ground disturbance caused by the pipeline remains within the existing highway.

Site number	15
Site name	Cliburn Ring Ditch Cropmarks
NGR	NY 58300 25000
HER No	5129
Statutory Designation	None
Site type	Ring Ditch
Period	Unknown
Sources	Aerial photographs, HER
Description	These unclassified ring ditches and cropmarks are visible on aerial photographs which show small circular cropmark features which could be ring ditches.
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number	16 (possibly same as 18)
Site name	Copper Alloy Pendant Find, Cliburn, Eden
NGR	NY 58700 24900
HER No	19446
Statutory Designation	None
Site type	Findspot
Period	Medieval
Sources	Portable Antiquities Database LVPL699
Description	A cast copper alloy horse harness pendant which is roughly circular, plain, concave with notches below the suspension loop which is complete. The pendant is incomplete, the state of wear is uncertain and the state of preservation is fair. The pendant has been dated <i>c</i> 1200-1450 AD.
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number	17
Site name	Copper Alloy Harness Pendant Find
NGR	NY 58700 24900
HER No	19449
Statutory Designation	None
Site type	Findspot
Period	Medieval
Sources	Portable Antiquities Database LVPL702
Description	A cast copper alloy harness comprising a swivel and pendant. The pendant is of folded sheet manufacture and roughly trapezoidal. It is incomplete and corroded and has been dated to <i>c</i> 1150-1450.
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number	18 (possibly same as 16)
Site name	Copper Alloy Harness Pendant Find, Cliburn, Eden
NGR	NY 58700 24900
HER No	19448
Statutory Designation	None
Site type	Findspot
Period	Medieval
Sources	Ordnance Survey First Edition 6" Sheet VIII 7
Description	A cast copper alloy horse harness pendant which is roughly circular, plain, concave with notches below the suspension loop which is complete. The

Assessment pendant is incomplete, the state of wear is uncertain and the state of preservation is fair. The pendant has been dated *c* 1200-1450 AD.
The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number **19 (possibly same as 20)**
Site name **Copper Alloy Harness Pendant Find, Cliburn, Eden**
NGR **NY 58700 24900**
HER No **19447**
Statutory Designation None
Site type **Findspot**
Period Medieval
Sources Portable Antiquities Database LVPL700
Description A cast copper alloy convex harness pendant which is incomplete. The state of wear is uncertain and the pendant is corroded. It has been dated *c* 1200-1450 AD.
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number **20 (possibly same as 19)**
Site name **Copper Alloy Harness Pendant Find, Cliburn, Eden**
NGR **NY 58700 24900**
HER No **19447**
Statutory Designation None
Site type **Findspot**
Period Medieval
Sources Portable Antiquities Database LVPL700
Description A cast copper alloy convex harness pendant which is incomplete. The state of wear is uncertain and the pendant is corroded. It has been dated *c* 1200-1450 AD.
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number **21**
Site name **Cliburn Medieval Village**
NGR **NY 58800 24600**
HER No **13603**
Statutory Designation None
Site type **Shrunken Village**
Period Medieval
Sources HER, walkover survey
Description Area for Cliburn village.
Assessment The site is crossed by the proposed pipeline route and will be affected by the works.

Site number **22**
Site name **Cliburn Town Bridge**
NGR **NY 58880 24415**
HER No **15504**
Statutory Designation None
Site type **Road Bridge**
Period Post-medieval
Sources HER, walkover survey

Description The bridge is in fair condition and lies just south of Starth Farm.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works

Site number 23
Site name Cliburn Hall, Cliburn
NGR NY 58920 24520
HER No 3835
Statutory Designation None
Site type Findspot
Period Medieval/Post-medieval
Sources HER
Description Constructed in 1387 the tower was probably built by Robert de Cliburn with a range of domestic apartments with the addition of a well tower in 1450. Considerable alterations to the building after 1965 have caused the building which was once listed to be removed from the Listed Buildings List.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 24
Site name Great Stricklands Ridge and Furrow
NGR NY 56000 23000
HER No 6210
Statutory Designation None
Site type Ridge and Furrow, Shrunken Village and Village
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and Furrow in fields north and south of Great Strickland village. Village earthworks are visible.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 25
Site name Copper Alloy Pendant Find, Eden
NGR NY 58700 24900
HER No 19445
Statutory Designation None
Site type Findspot
Period Medieval
Sources Portable Antiquities Database LVPL698
Description A cast copper alloy circular horse harness pendant which is very worn. The state of wear is uncertain and the state of preservation is fair. The pendant has been dated to c 1200-1450.
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number 26
Site name Bradley Farm Barn, Great Strickland Moor, Great Strickland
NGR NY 57337 23173
HER No 25093
Statutory Designation None
Site type Barn
Period Post-medieval
Sources Listed Building Index

Description	A ruined barn to the north-west of Bradley farmhouse (LB SMR 25092) of mid to late eighteenth century date. The barn was Grade II listed for group value (LB74272) but was delisted in December 2006 for being in a ruinous condition.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	27
Site name	Sand Pit
NGR	NY 56231 25781
HER No	None
Statutory Designation	None
Site type	Sand pit
Period	Post-medieval
Sources	Ordnance Survey maps
Description	Sand Wath sand pit identified on First Edition map, 1863
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works, unless the disturbance for the pipeline remains entirely within the highway.

Site number	28
Site name	
NGR	NY 56310 22990
HER No	None
Statutory Designation	None
Site type	Removed stone wall
Period	Post-medieval
Sources	Walkover survey
Description	Remains of stone wall of original field boundary
Assessment	The site lies in close proximity to the pipeline route but will not be affected by the works.

Site number	29
Site name	
NGR	NY 56283 22972
HER No	None
Statutory Designation	None
Site type	Hollow Way
Period	Post-medieval
Sources	Walkover survey
Description	A 53m long bank that is 1m wide and stands to a height of 0.2m, and is likely to be connected to Site 30 .
Assessment	The site lies in close proximity to the pipeline route but will not be affected by the works.

Site number	30
Site name	
NGR	NY 56273 22915
HER No	None
Statutory Designation	None
Site type	Hollow Way
Period	Possible medieval
Sources	Walkover survey
Description	A banked hollow way that varies in width from 2m to 4m internally with the banks standing to a height of 0.3m. This is likely to be associated with site 29

Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 31
Site name
NGR NY 65234 22920
HER No None
Statutory Designation None
Site type Ridge and furrow
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site 24, 7m between furrows, ridges 4m wide across the top and stand to a height of 0.3m
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 32
Site name
NGR NY 56216 22972
HER No None
Statutory Designation None
Site type Earthwork
Period Unknown
Sources Walkover survey
Description A 23m long bank that stands to a height of 0.2m and a width of 0.5m
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 33
Site name
NGR NY 56265 23006
HER No None
Statutory Designation None
Site type Earthwork
Period Unknown
Sources Walkover survey
Description Large earthwork that appears to have been truncated by churchyard wall to the north-west. The earthwork is 49m long and 20m wide and stands to a height of 1.5m
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number 34
Site name Low Well
NGR NY 56252 23017
HER No None
Statutory Designation None
Site type Well
Period Possible Medieval
Sources Walkover survey
Description Stone capped well with wrought iron gate.
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number	35
Site name	
NGR	NY 56167 22984
HER No	None
Statutory Designation	None
Site type	Earthworks
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Earthworks probably relating to the medieval shrunken village (Site 02).
Assessment	The site lies close to the proposed pipeline route but will not be affected by the works.

Site number	36
Site name	
NGR	NY 56180 22959
HER No	None
Statutory Designation	None
Site type	Hollow Way
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Hollow Way that is likely to be related to the medieval shrunken village (Site 02). Survives up to a length of 33m and 6m wide and stands to a height of 0.75m.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	37
Site name	
NGR	NY 56197 22917
HER No	None
Statutory Designation	None
Site type	Ridge and furrow
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ridge and furrow that is part of Site 24, 7m between furrows, ridges 4m wide across the top and stand to a height of 0.3m
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	38
Site name	
NGR	NY 56198 22955
HER No	None
Statutory Designation	None
Site type	Burgage plot boundary
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ditch of burgage plot boundary, replaced by modern fence. The ditch runs the length of the field and is 5m and stands to a height of 0.75m.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	39
Site name	
NGR	NY 56056 22843
HER No	None

Statutory Designation None
Site type **Strip field system**
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**, 7m between furrows, ridges 3m wide across the top and stand to a height between 0.2m-0.5m
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number **40**
Site name
NGR **NY 55859 22810**
HER No **None**
Statutory Designation None
Site type **Ridge and furrow**
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**, 7m between furrows, ridges 3m wide across the top and stand to a height of 0.2m
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number **41**
Site name
NGR **NY 55861 22740**
HER No **None**
Statutory Designation None
Site type **Ridge and furrow**
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**, 7m-10m between furrows, ridges 3m wide across the top and stand to a height of 0.2m
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number **42**
Site name
NGR **NY 55748 22743**
HER No **None**
Statutory Designation None
Site type **Hollow Way**
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Hollow Way that is likely to be related to the medieval shrunken village (Site **02**). This survives across three fields to a length of 120m and a width of 3m at the base and standing to a maximum height of 0.5m. There is a slight bank surviving. The hollow Way joins up with Maudy Lane (Site **48**).
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number **43**
Site name
NGR **NY 55773 22758**
HER No **None**
Statutory Designation None
Site type **Headland**

Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Headland for ridge and furrow (Site **44**) and survives to a length of 40m and 3m wide and stands to a height of 0.3m. This is part of Site **24**.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 44
Site name
NGR NY 55823 22711
HER No None
Statutory Designation None
Site type Ridge and furrow
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**, 7-12m between furrows, ridges 3-4m wide across the top and stand to a height of 0.3m. The sixth ridge from the south west is a burgage plot boundary due to its distance from the others, but also lines up with plot from the main road.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 45
Site name
NGR NY 55747 22779
HER No None
Statutory Designation None
Site type Ridge and furrow
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**, three furrows visible and two ridges, no access.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 46
Site name
NGR NY 55746 22696
HER No None
Statutory Designation None
Site type Ridge and furrow
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**. Two sets of ridge and furrow, the south-west set are 7m between furrows, ridges 3m wide across the top and stand to a height of 0.3m. The north-east set are closer together with the spacing between the furrows being 5-6m. Burgage plot boundaries and ridge and furrows are missing within this field.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 47
Site name
NGR NY 55710 22747
HER No None
Statutory Designation None

Site type	Ridge and furrow
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ridge and furrow that is part of Site 24 , 7m between furrows, ridges 3-4m wide across the top and stand to a height of 0.3m
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	48
Site name	Maudy Lane
NGR	NY 55754 22622
HER No	None
Statutory Designation	None
Site type	Hollow
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Hollow Way that is still in use, but is likely to have been an original lane for the medieval village. The holloway is 3m wide at the base and stands to a height of 1m. Site 42 joins up with this lane.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	49
Site name	
NGR	NY 55562 22575
HER No	None
Statutory Designation	None
Site type	Ridge and furrow
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ridge and furrow that is part of Site 24 , 7m between furrows, ridges 3-4m wide across the top and stand to a height of 0.3m
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number	50
Site name	
NGR	NY 55523 22950
HER No	None
Statutory Designation	None
Site type	Ridge and furrow
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ridge and furrow that is part of Site 24 , 7m between furrows, ridges 3-4m wide across the top and stand to a height of 0.3m
Assessment	The site lies close to the proposed pipeline route but will not be affected by the works.

Site number	51
Site name	
NGR	NY 55685 23015
HER No	None
Statutory Designation	None
Site type	Ridge and furrow
Period	Medieval

Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**, no access private gardens.
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number 52
Site name
NGR NY 55812 23080
HER No None
Statutory Designation None
Site type Strip field system
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Buragage plot boundary 2-3m wide on top and stands to a height of 0.2-0.3m.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 53
Site name
NGR NY 55812 23080
HER No None
Statutory Designation None
Site type Ridge and furrow
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Ridge and furrow that is part of Site **24**, very vague and faint.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 54
Site name
NGR NY 55852 22990
HER No None
Statutory Designation None
Site type Unknown
Period Unknown
Sources Walkover survey
Description Linear feature of large to medium boulders surviving to a length of 13m and 1.20m wide.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 55
Site name
NGR NY 55993 23147
HER No None
Statutory Designation None
Site type Strip field boundary
Period Medieval
Sources Aerial Photographs; HER, walkover survey
Description Burgage plot boundary that is part of Site **24**, this survives as single sided bank to a height of 0.75m and 2-3m wide and is visible for 165m in length.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	56
Site name	
NGR	NY 56020 23081
HER No	None
Statutory Designation	None
Site type	Ridge and furrow
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ridge and furrow that is part of Site 24 , 7m between the furrows, the ridges are 3-4m wide on top and they stand to a height of 0.2m. This ridge and furrow is incomplete and is apparent on both sides of burgage plot boundary (Site 57).
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	57
Site name	
NGR	NY 56020 23081
HER No	None
Statutory Designation	None
Site type	Strip field boundary
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Burgage plot boundary that is part of Site 24 , this bank runs right up to the garden wall of a post-medieval house that appears to have taken over two burgage plots. This bank also runs through headland (Site 58). The bank survives to a width of 3-4m and stands to a height of 0.3m
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	58
Site name	
NGR	NY 56031 23038
HER No	None
Statutory Designation	None
Site type	Headland
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Headland that is associated with ridge and furrow (Site 56) that is part of Site 24 , this survives for 70m and a width of 3-4m and to a height of 0.3m.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	59
Site name	
NGR	NY 56123 23123
HER No	None
Statutory Designation	None
Site type	Strip field system
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Strip field system that is part of Site 24 . Two burgage plot boundary banks that are 2m wide and stand to a height of 0.3m. Within the burgage plots are four furrows in each that are 7m apart and survive to a height of 0.2m and ridges that are 3-4m wide on top. This also has the headland surviving to.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number	60
Site name	
NGR	NY 56356 23036
HER No	None
Statutory Designation	None
Site type	Ridge and furrow
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ridge and furrow that is part of Site 24 , four furrows that are 7m apart with a 10m gap before the burgage plot boundary to the south-west. This survives for a length of 30m.
Assessment	The site is crossed by the proposed pipeline route and will be affected by the works.

Site number	61
Site name	
NGR	NY 56377 23057
HER No	None
Statutory Designation	None
Site type	Earthwork
Period	Unknown
Sources	Walkover survey
Description	Hollowed-out platform that is 13m long and 9m wide and is 9m to the north east of Site 60.
Assessment	The site is crossed by the proposed pipeline route and will be affected by the works.

Site number	62
Site name	
NGR	NY 56371 23012
HER No	None
Statutory Designation	None
Site type	Drainage ditch
Period	Post-medieval
Sources	Walkover survey
Description	Drainage ditch that runs into a stream at the north-east end and has a three stone slab crossing point 20m from the south west end. The ditch is 3m wide and stands to a height of 0.25-0.5m
Assessment	The site lies close to the proposed pipeline route but will not be affected by the works.

Site number	63
Site name	
NGR	NY 56707 22935
HER No	None
Statutory Designation	None
Site type	Field boundary
Period	Post-medieval
Sources	Walkover survey
Description	A removed field boundary in ditch form that is 0.8m wide and stands to a height of 0.15m and the width of the field.
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number	64
Site name	
NGR	NY 57092 23001
HER No	None
Statutory Designation	None
Site type	Drainage ditches
Period	Post-medieval
Sources	Walkover survey
Description	Two drainage ditches running north-east/south-west, 15m apart. The eastern ditch survived to a length of 135m, 4m wide and to a height of 0.25m and ran into a stream shown on the OS map. The western ditch survived to a length of 130m, 1m wide and to a height of 0.15m.
Assessment	The site is crossed by the proposed pipeline route and will be affected by the works.

Site number	65
Site name	
NGR	NY 55678 26823
HER No	None
Statutory Designation	None
Site type	Strip field system
Period	Medieval / Post-medieval
Sources	Walkover survey
Description	Ridge and furrow with strip field boundaries. Four strip field boundaries that are 10-16m apart with only the eastern boundary having furrows to the east of it. The furrows are 3-5m apart and the ridges 2m wide on top. All the features stand to a height of 0.15m.
Assessment	The site lies close to the proposed pipeline route and maybe affected by the works.

Site number	66
Site name	Wetherriggs Pottery
NGR	NY 55461 26299
HER No	None
Statutory Designation	None
Site type	Clay extraction pit
Period	Post-medieval
Sources	Walkover survey, reconstruction drawing within the Wetheriggs Pottery
Description	This is the clay extraction pit of the Wetheriggs Pottery (Site 10) in the form of a field, this was established by a reconstruction drawing within Wetheriggs Pottery.
Assessment	The site lies outside the proposed pipeline route and will not be affected by the works.

Site number	67
Site name	
NGR	NY 58592 25055
HER No	None
Statutory Designation	None
Site type	Strip field system
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Removed burgage plot boundary and headland, which are part of Site 21 . The burgage plot boundary survives for a length of 112m, 2-3m wide and stands to a height of 0.25m. The headland survives to a length of 22m.
Assessment	The site lies close to the proposed pipeline route but will not be affected by the works.

Site number	68
Site name	
NGR	NY 58642 25031
HER No	None
Statutory Designation	None
Site type	Strip field system
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Removed burgage plot boundary, which is part of Site 21 . It survives to a length of 130m, 2-3m wide and stands to a height of 0.25m
Assessment	The site lies close to the proposed pipeline route but will not be affected by the works.

Site number	69
Site name	
NGR	NY 58726 24996
HER No	None
Statutory Designation	None
Site type	Strip field system
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	There are three sets of ridge and furrow, burgage plot boundaries and a headland, which all belong to Site 21 . The east and west furrows are set 3m apart and the central set are 6m apart. A possible burgage plot boundary divides the central and eastern set of furrows by 5m. The ridges are 2-3m wide on top and survive to a height of 0.25m-0.3m. The western set only survive to a length of 4m. At the north end of the field is the headland which survives to length of 50m, 1.5m wide and 0.2-0.3m high.
Assessment	The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number	70
Site name	
NGR	NY 58809 24424
HER No	None
Statutory Designation	None
Site type	Earthworks
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Earthworks containing a double platform, one bank and two ditches. Of unknown function, but is likely to be part of Site 21 .
Assessment	The site lies close to the proposed pipeline route but will not be affected by the works.

Site number	71
Site name	
NGR	NY 58540 24791
HER No	None
Statutory Designation	None
Site type	Strip field system
Period	Medieval
Sources	Aerial Photographs; HER, walkover survey
Description	Ridge and furrow that is part of Site 21 , but this ridge and furrow is with in an oval shaped ditch around the edge of the field, it has been suggested that the oval ditch is where horses have been exercised. The furrows are set 7m apart and the ridges are 3-4m wide and stand to a height of 0.2m. The oval ditch is

Assessment 4m wide and stands to a height of 0.2m. On the southern side of the field is the remains of the burgage plot boundary with its distinctive reverse 'S' shape. The burgage plot boundary is 2m wide and stands to a height of 0.15m. The site lies outside the proposed pipeline route and will not be affected by the works.

Site number 72
Site name
NGR NY 57021 22883
HER No None
Statutory Designation None
Site type Earthworks
Period Unknown
Sources Walkover survey
Description Series of earthworks of unknown use or origin. Some of the earthworks are likely to be disused boundaries, but the others have no obvious function.
Assessment The site lies in close proximity to the pipeline route and could be affected by the works, unless the ground disturbance caused by the pipeline remains entirely within the existing highway.

Site number 73
Site name
NGR NY 55544 26608
HER No None
Statutory Designation None
Site type Field boundary
Period Post-medieval
Sources Walkover survey
Description Removed field boundary that is in the form of a bank and is 0.5m wide and stands to a height of 0.15m and a length of 59m.
Assessment The site lies outside of the proposed pipeline route and will not be affected by the works.

Site number 74
Site name
NGR NY 58701 25077
HER No None
Statutory Designation None
Site type Well
Period Possible Medieval
Sources Ordnance Survey Map, walkover survey
Description This is a stone-capped well that is marked on the modern OS map, but is just beyond the headland of Site 69 and suggests that it may have belonged to the medieval dwelling that may have occupied this site.
Assessment The site lies outside the proposed pipeline route and will not be affected by the works.

6. SIGNIFICANCE OF THE REMAINS

6.1 INTRODUCTION

6.1.1 In total, 74 sites were identified within the study area during the desk-based assessment and walkover survey. Twenty six of these sites were recorded in the Cumbria HER, Site **27**, was identified through cartographic analysis. There is one Scheduled Ancient Monument (Site **10**) within the study area and 16 listed buildings (Table 2), which were not added to the gazetteer.

Period	No of Sites	Site Type
Mesolithic	1	Findspot (12)
Neolithic	0	
Bronze Age	1	Findspot (06)
Iron Age	0	
Romano-British	2	Road (09), Road (07)
Early Medieval	0	
Late Medieval	10	Road (07), Shrunken Village (20), Hall House and Pele tower (22), Ridge and Furrow (23, 31, 37-41, 44-47, 49-51, 53, 56, 59, 60, 65, 69, 71) and associated features (43, 52, 55, 57, 58, 67, 68), Shrunken Village (02), Holloways (29, 30, 36, 42), Earthworks (35, 70), Wells (34, 74), Findspot (24, 16, 17, 18, 19)
Post-medieval	10	Barn (25), Farmstead (05), Railway (11), Pottery kiln and works (10, 66), Quarry (01, 04, 03) Road (07), Road bridge (21), Farmhouse (22), Agrarian features (28, 62, 63, 64, 73)
Unknown	2	Findspot (14), Ring Ditch (15), Earthworks (32, 33, 54, 61, 72)

Table 3: Number of sites by period

6.2 CRITERIA

6.2.1 There are a number of different methodologies used to assess the archaeological significance of sites; that to be used here is the ‘Secretary of State’s criteria for scheduling ancient monuments’ which is included as Annex 4 of PPG 16 (DoE 1990). The sites previously listed (*Section 4*, above) were each considered using the criteria, with the results below.

6.2.2 The isolated findspots which date from the prehistoric period (Sites **06, 12, 13** and **14**) are significant to their period if they are considered within the context of the wider prehistoric landscape. This would include, although just outside the study area, the site at Leacet Hill which comprises an enclosure or linear boundary, associated cremation cemetery, and pits. The site, on further investigation may prove to have associated field systems or settlement

features. Also significant to their period within the study area are the two shrunken medieval villages (SMV's) of Great Strickland (02) and Cliburn (20). Both sites have associated areas of ridge and furrow (24, 31, 37, 40, 41, 44-47, 49-51, 53, 56 and 60), strip enclosures and earthworks (35, 36, 38, 39, 42, 43, 48, 52, 55, 57-59, 65, 67-69, 70 and 71) visible on aerial photographs and the walkover survey, and have been identified as Hazard areas by the HER, Cumbria. Further investigation of these sites may provide information on what was a common occurrence in northern England during the fourteenth and fifteenth centuries. Villages were abandoned or relocated normally as a result of bouts of plague, livestock disease, harvest failures and constant warring with Scotland (Winchester 1987). The Hall and Pele Tower at Cliburn (23) are also significant to their period as they provide information on medieval manors and architectural styles in north-west England. The Old Pottery Kiln at Wetheriggs (Sites 10, 66) is significant to its period, reflected in its Scheduling. The pottery was constructed in 1855 and the kiln remained in regular use until 1959, a testament to its longevity. The site provides information on a genuine rural industry with a longstanding tradition of the production of traditionally patterned Westmorland salt-glazed earthenware.

- 6.2.3 Other features identified by the walkover survey, such as post-medieval agrarian features (Sites 28, 62, 63, 64 and 73) and earthworks of an indeterminate function and date (Sites 32, 33, 54, 61 and 72), have a low local value
- 6.2.4 **Rarity:** the various strip enclosures, field systems and earthworks associated with the SMV's of Great Strickland (Site 02) and Cliburn (Sites 21 and possibly Site 15) are significant in their rarity at a local and regional level, being relatively untouched by modern development. The pottery at Wetheriggs is also rare on both a local and regional level. None of the other sites are considered to be particularly rare.
- 6.2.5 **Documentation:** the discussion of Cliburn Hall and Pele Tower (Site 23), and the SMV's (Site 02 and 21) in various historic documents dating from the medieval period enhances their significance. The majority of the post-medieval sites are recorded, mainly in cartographic form, supported by aerial photographic evidence. Commonholme Bridge (Site 08) is mentioned in documents from 1679. The remainder of the sites are not viewed as significant through documentation. Brakenber Quarry (Site 04), Maudy Lane Quarry (Site 03) and Oaklands Quarry (Site 01) were all identified through documentary sources and aerial photographs. Street Road (Site 07) forms part of the road from Newby to Penrith. Documentary evidence begins in 1647, but the road may be of medieval or even Roman origin.
- 6.2.6 **Group Value:** the individual findspots of prehistoric date (Sites 06, 12, 13 and 14) are significant as a group when viewed as part of a wider early prehistoric landscape, particularly with the potential for related agricultural and settlement activity. The numerous settlements, strip enclosures, earthworks and field systems, surrounding Great Strickland (Site 02) and Cliburn (Site 21) are extremely significant in their group value as they create an example of a holistic landscape in north-west England during the initial post-conquest period and may have origins at an even earlier date. The remainder of the sites are not considered to have significant group value.

- 6.2.7 **Survival/Condition:** the medieval settlement enclosure and field system cropmark sites, listed in the Gazetteer (*Section 5*), were identified through aerial photography and cartographic analysis, illustrating their survival. The fabric of the medieval villages of Great Strickland and Cliburn survives relatively unaltered, as confirmed by the walkover survey, which also confirmed the good condition of the remaining earthworks and field systems. Cliburn Hall (Site **23**) also survives although it has been subject to considerable alterations after 1965 which caused the building to be removed from the Listed buildings register. Cliburn Town Bridge (Site **22**) survives in a fair condition. Street Road (Site **07**) survives as a modern road. The Old Pottery at Wetheriggs survives in good condition and the kiln, workshops, drying sheds, kiln room, steam house and blunger are all Grade II Listed; the walkover identified the clay extraction site (Site **66**), which has been backfilled. Bradley Farm Barn (Site **26**) was Grade II Listed for its group value but was delisted in December 2006 for being in a ruinous condition. The Eden Valley Railway (Site **11**) is dismantled and survives as an earthwork, having closed in 1962.
- 6.2.8 **Fragility/Vulnerability:** the many cropmark sites listed (*Section 4*), mostly dating from the medieval period, which were identified through aerial photography and cartographic analysis, are classed as a Hazard Area and, as such, are both fragile, and vulnerable to any sub-surface groundworks. Earthwork sites such as the SMV's (Sites **02** and **21**) would be extremely vulnerable to sub-surface works. The medieval strip-field systems identified around Great Strickland and Cliburn have been relatively undisturbed by modern development.
- 6.2.9 **Diversity:** Cliburn (Site **21**), as well as being a medieval settlement with associated strip enclosures and field systems, has also produced evidence from the Romano-British period (two fragmentary inscribed Roman stones incorporated into the inner porch door of St Cuthbert's church, although these are of unknown provenance) and the prehistoric period, in the form of individual findspots (Sites **12**, **13** and **14**). There is also a series of small circular cropmarks (Site **15**) visible on aerial photographs of Cliburn which could be ring ditches, but they are of unknown date.
- 6.2.10 **Potential:** the presence of several significant earlier prehistoric sites (Sites **06**, **12**, **13**, and **14**) within the study area suggests a potential for further prehistoric remains. The cropmarks and cultivation features surrounding Great Strickland (Site **02**) and Cliburn villages (Site **21**) indicate a potential for further remains relating to their medieval antecedents. The unclassified cropmarks identified (for example, Site **15**) have the potential to be part of a relict rural landscape, possibly dating from prehistoric to the post-medieval period. If Street Road proves to be of earlier origin, either Roman or medieval, there is potential for associated activity (Site **07**).

6.3 SIGNIFICANCE

- 6.3.1 Table 4 shows the sensitivity of sites scaled in accordance with its relative importance with guideline recommendations for a mitigation strategy.

Importance	Examples of Site Type	Negative Impact
National	Scheduled Monuments (SMs), Grade I, II* and II Listed Buildings	To be avoided
Regional/County	Conservation Areas, Registered Parks and Gardens (Statutory Designated Sites) Sites and Monuments Record/Historic Environment Record	Avoidance recommended
Local/Borough	Sites with a local or borough value or interest for cultural appreciation Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Low Local	Sites with a low local value or interest for cultural appreciation Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Negligible	Sites or features with no significant value or interest	Avoidance unnecessary

Table 4: Criteria used to determine Importance of Sites

- 6.3.2 In total, 22 sites (Sites **02, 04, 05, 07, 09, 11-21, 25, 49, 51, 60** and **69**) identified during the desk-based assessment may be affected by the proposed pipeline route all of which have been included on the Cumbria HER, which suggests a regional or county-level significance. This is based on the current state of knowledge and the subsequent discovery of additional features or evidence relating to these sites could alter their assessed levels of significance.
- 6.3.3 A single additional site, Site **27**, that was identified from map regression, analysis may be affected by the scheme, unless the groundworks for the scheme remain within the current highway. It is considered to be of local significance.
- 6.3.4 A further ten sites (Sites **33, 34, 49, 51, 60, 61, 63, 64, 69** and **72**) identified during the walkover survey may be affected by the proposed pipeline route. Sites **33, 34** and **72** are considered to be of regional or county-level significance. Site **61** lies close to Site **60** and may be of some importance. Sites **63** and **64** are regarded as of low-level significance.

7. IMPACT AND RECOMMENDATIONS

7.1 IMPACT

7.1.1 In its Planning Policy Guidance *Note 16*, the Department of the Environment (DoE) advises that archaeological remains are a continually diminishing resource and ‘*should be seen as finite, and non-renewable resource, in many cases, highly fragile and vulnerable to destruction. Appropriate management is therefore essential to ensure that they survive in good condition. In particular, care must be taken to ensure that archaeological remains are not needlessly or thoughtlessly destroyed*’. It has been the intention of this study to identify the archaeological potential of the study area, and assess the impact of redevelopment, thus allowing the advice of the DoE to be enacted upon. Assessment of impact has been achieved by the following method:

- assessing any potential impact and the significance of the effects arising from redevelopment;
- reviewing the evidence for past impacts that may have affected the archaeological sites;
- outlining suitable mitigation measures, where possible at this stage, to avoid, reduce or remedy adverse archaeological impacts.

7.1.2 The impact is assessed in terms of the sensitivity or importance of the site to the magnitude of change or potential scale of impact during the future redevelopment scheme. The magnitude, or scale, of an impact is often difficult to define, but will be termed as substantial, moderate slight, or negligible, as shown in Table 5, below.

Scale of Impact	Description
Substantial	Significant change in environmental factors; Complete destruction of the site or feature; Change to the site or feature resulting in a fundamental change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Moderate	Significant change in environmental factors; Change to the site or feature resulting in an appreciable change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Slight	Change to the site or feature resulting in a small change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Negligible	Negligible change or no material changes to the site or feature. No real change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.

Table 5: Criteria used to determine Scale of Impact

7.1.3 The interaction of the scale of impact (Table 5) and the importance of the archaeological site (Table 4) produce the impact significance. This may be calculated by using the matrix shown in Table 6 below.

Resource Value (Importance)	Scale of Impact Upon Archaeological Site			
	Substantial	Moderate	Slight	Negligible
National	Major	Major	Intermediate/Minor	Neutral
Regional/County	Major	Major/Intermediate	Minor	Neutral
Local/Borough	Intermediate	Intermediate	Minor	Neutral
Local (low)	Intermediate / Minor	Minor	Minor/Neutral	Neutral
Negligible	Neutral	Neutral	Neutral	Neutral

Table 6: Impact Significance Matrix

7.1.4 The extent of any previous disturbance to buried archaeological levels is an important factor in assessing the potential impact of the development scheme. In the northern part of the study area few known sites were recorded and only one unknown site (65) was identified during the walkover survey. Further south, around Cliburn and Great Strickland the sites identified are mainly clustered within the immediate vicinity of the two villages. The landscape has changed little over the centuries and the most likely cause of long-term damage or degradation is agricultural and forestry activity. The effects of modern deep-ploughing on sub-surface remains can be severe, and it is possible that currently unidentified sites within the study area may have been adversely affected by such activity.

7.1.5 The impact of such plough damage will depend upon the nature of the site and the scale and duration of ploughing in the particular area. Sites comprising deeply cut ditches or pits, for example, will be more likely to survive as residual features than shallow negative features.

7.2 IMPACT ASSESSMENT

7.2.1 Following on from the above considerations, the significance of effects has been determined based on an assumption that there will be earth-moving works associated with the development, and the present condition of the archaeological assets/sites. The results are summarised in Table 8, below, in the absence of mitigation. *The following may require review once detailed design proposals are known.*

7.2.2

Site Number	Nature of Impact	Importance	Scale of Impact	Impact Significance
02	Disturbance of related artefacts or features by groundworks	Regional or county	Slight	Minor

Site Number	Nature of Impact	Importance	Scale of Impact	Impact Significance
04	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
05	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
07	Disturbance of related artefacts or features by groundworks	Regional or county	Moderate	Intermediate
09	Disturbance of related artefacts or features by groundworks	Regional or county	Moderate	Intermediate
11	Disturbance of related artefacts or features by groundworks	Regional or county	Slight	Minor
12	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
13	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
14	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
15	Disturbance of related artefacts or features by groundworks	Regional or county	Moderate/none if groundworks remain within confines of highway	Intermediate/none
16-19	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
20	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
21	Disturbance of related artefacts or features by groundworks	Regional or county	Slight	Minor

Site Number	Nature of Impact	Importance	Scale of Impact	Impact Significance
25	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
27	Disturbance of related artefacts or features by groundworks	Local/Borough	Slight/none if groundworks remain within confines of highway	Minor/none
33	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
34	Disturbance of related artefacts or features by groundworks	Regional or county	Moderate/none if groundworks remain within confines of highway	Intermediate/none
49	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
51	Disturbance of related artefacts or features by groundworks	Regional or county	Slight/none if groundworks remain within confines of highway	Minor/none
60	Disturbance of related artefacts or features by groundworks	Regional or county	Moderate	Major
61	Disturbance of related artefacts or features by groundworks	Local/Borough	Moderate	Intermediate
63	Disturbance of related artefacts or features by groundworks	Negligible	Slight/none if groundworks remain within confines of highway	Negligible/none
64	Disturbance of related artefacts or features by groundworks	Negligible	Neutral	Neutral
69	Disturbance of related artefacts or features by groundworks	Regional or county	Moderate/none if groundworks remain within confines of highway	Intermediate/none
72	Disturbance of related artefacts or features by groundworks	Regional or county	Moderate/none if groundworks remain within confines of highway	Intermediate/none

Table 8: Assessment of the impact significance on each site during development

8. RECOMMENDATIONS FOR ARCHAEOLOGICAL MITIGATION

8.1 INTRODUCTION

- 8.1.1 In terms of the requirement for further archaeological investigation and mitigation, it is necessary to consider only those sites that will be affected by the proposed development. Current legislation draws a distinction between archaeological remains of national importance and other remains considered to be of lesser significance. Those perceived to be of national importance may require preservation *in situ*, whilst those of lesser significance may undergo preservation by record, where high local or regional significance can be demonstrated.
- 8.1.2 Through the desk-based assessment evaluation trenching is recommended in the sections of the pipeline easement in close proximity to Leacet Hill and the known Bronze Age remains. Topographic survey and targeted watching brief are recommended on the sections of the route around Cliburn Hall (Site **23**). An Evaluation is recommended for Site **15**, unless all groundworks within this area remain within the current highway. A topographic survey is recommended for Site **60**, which is part of the ridge and furrow (Site **2**). A topographic survey is also recommended for the hollowed-out platform (Site **61**).
- 8.1.3 Depending upon the results of the topographic survey, further recommendations for mitigation may be forthcoming. Where phases of detailed archaeological investigation, such as walkover survey and topographic survey, identify the presence of significant remains of archaeological interest that cannot be preserved *in situ*, archaeological excavation would be necessary, in order to preserve the sites by record.
- 8.1.4 Finally, due to the significant nature of archaeological sites along the proposed route of the pipeline, and the proximity of the route to known prehistoric and medieval remains, it is recommended that a permanent presence watching brief should be maintained during all ground disturbing activities. In particular the area around Cliburn Hall (Site **23**) and both SMVs of Cliburn (Site **21**) and Great Strickland (Site **2**) should be targeted. Site-specific recommendations for further investigation are summarised in Table 9.

Site Number	Significance	Impact Significance	Recommendations
02	Regional/county	Minor	Targeted watching brief
04	Regional/County	Minor/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
05	Regional/County	Minor/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
07	Regional/County	Intermediate	Targeted watching brief
09	Regional/County	Intermediate	Targeted watching brief

Site Number	Significance	Impact Significance	Recommendations
11	Regional/County	Minor	Targeted watching brief
12-14	Regional/County	Minor/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
15	Regional/County	Intermediate/none	Evaluation Trenching, unless all groundworks within this area remain within the current highway
16-20	Regional/County	Slight/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
21	Regional/County	Slight	Targeted watching brief
25	Regional/County	Slight/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
27	Local/Borough	Slight/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
33	Regional/County	Slight/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
34	Regional/County	Moderate/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
49	Regional/County	Slight/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
51	Regional/County	Slight/none	Targeted watching brief, unless all groundworks within this area remain within the current highway
60	Regional/County	Major	Full topographic survey and targeted watching brief
61	Regional/County	Major	Full topographic survey and targeted watching brief and further investigation if recommended by topographic results
64	Negligible	Neutral	None
69	Regional/County	Intermediate	Targeted Watching Brief , unless all groundworks within this area remain within the current highway, in which case none.
72	Regional/County	Moderate	Targeted Watching Brief , unless all groundworks within this area remain within the current highway, in which case none.

Table 8: Summary of site-specific recommendations for further archaeological investigation and provisional mitigation

9 BIBLIOGRAPHY

9.1 PRIMARY SOURCES

Inclosure Award for Cliburn Parish, WQR/1/15, 1820

Plan of the Township of Great Strickland, Westmorland WDRC/8/167, 1838

Ordnance Survey First Edition 6" to one mile Westmorland Sheet VIII, 1863

Ordnance Survey First Edition 25" to one mile Westmorland Sheet VIII, 2, 3 and 7

Ordnance Survey Second Edition 25" to one mile Westmorland Sheet VIII, 2, 6 and 10 1898

Ordnance Survey Third Edition 6" to one mile Westmorland Sheet VIII, SW, NE, NW, 1920

Ordnance Survey 6" to one mile sheet NY 52 NE Cumberland and Westmorland, 1957

Ordnance Survey, 1983, *Soils of Northern England, Sheet I*

9.2 AERIAL PHOTOGRAPHS

CCC 1751, 16, 18-20, 24, 25

CCC 2467, 7-10

CCC 2803, 2

CCC 2823, 9-11

CCC 2824, 5

CCC 2825 28-33

CCCP 3073, 23, 24

MU CS 98A, 18

9.3 SECONDARY SOURCES

Bulmer, T 1895 *A History and Topography and Directory of Westmorland*, Preston, 324-7

Bulmer, T 1905 *A History and Topography and Directory of Westmorland*, Preston, 140-2

CFA, 2003, *Hackthorpe, Penrith, Cumbria, Archaeological Excavation*, unpub client rep.

Cherry J & Cherry PJ, 1983 'Prehistoric Habitation Sites in West Cumbria: Part 1, the St Bees Area and North to the Solway', *TWCAAS* 83, 1-14

Cherry J & Cherry PJ, 1995 'Prehistoric Habitation of the Cumbrian Limestone Uplands: Occupation Sites found between 1986 and 1993', *TCWAAS* 95, 1-22

Cherry J & Cherry PJ, 2000 'a Late Mesolithic assemblage from Levens Park', *TCWAAS* 100, 25-32

Clare, T, 1981 *Archaeological Sites of the Lake District*, Ashbourne

Collingwood, WG, 1926, 'An Inventory of the Ancient monuments of Westmorland and Lancashire North-of-the-Sands', in *Transactions of the Cumberland and Westmorland Antiquity and Archaeological Society (TCWAAS)*, n.ser vol. XXVI

Countryside Commission, 1998, *Countryside Character, Volume 2: North West*, Cheltenham

Department of the Environment (DoE), 1990 *Planning Policy Guidance Note 16*, London

English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London

Higham, N, 1986 *The Northern Counties to AD 1000*, London

Hodgson, J, and Brennan, M, 2006 Prehistoric period resource assessment, in M Brennan (ed) *The archaeology of north west England, an archaeological research framework for north west England: volume 1, resource assessment*, 23–58

Institute of Field Archaeologists, 1999 *Standard and guidance for archaeological Desk-based Assessments*

James, R, 2006 'A Bronze Age Enclosure and Cremation Cemetery at Leacet Hill, Brougham', *TCWAAS*, 3rd ser. vol. VI

LUAU, 1997 *Crooklands, Clifton, Cumbria Archaeological Assessment Report* unpubl rep

Newman, C 2006 The Medieval Period Resource Assessment, in M Brennan (ed) *The archaeology of north west England, an archaeological research framework for north west England: volume 1, resource assessment*, 115-145

Nicolson, J, and Burn, R, 1777 *The History and Antiquities of the Counties of Westmorland and Cumberland*, vol. I

OA North, 2002 *Land at Hackthorpe, Penrith, Cumbria: Evaluation Report*, unpub client rep.

OA North, 2005 *Hackthorpe Wastewater Treatment Improvements, Cumbria: Desk-Based Assessment and Rapid Walkover Survey*, unpub client rep.

Parker Pearson, M, 2000 *Bronze Age Britain*, London
Rollinson, W, 1978, *A History of Cumberland and Westmorland*, London

Roberts, BK, 1993 Five Westmorland Settlements: A Comparative Study, *Trans Cumberland Westmorland Antiq Archaeol Soc nser*, **93**, 131-143

Rollinson, W, 1978, *A History of Cumberland and Westmorland*, London

Royal Commission on the Historic Monuments of England (RCHME), 1936 *An Inventory of the Historical Monuments in Westmorland*

White, AJ, 1996 Medieval Towns in R Newman (ed) *The Archaeology of Lancashire*, Lancaster, 125-38

Whellan, W, 1860 *The History and Topography of the Counties of Cumberland and Westmorland*, Manchester, 789-90

Winchester, AJL, 1987 *Landscape and Society in Medieval Cumbria*, Edinburgh

10. ILLUSTRATIONS

10.1 FIGURES

Figure 1: Site Location Map

Figure 2a: Plan of Gazetteer Sites (North)

Figure 2b: Plan of Gazetteer Sites (South)

Figure 3: Ordnance Survey First Edition 6" to one mile, 1863

Figure 4: Ordnance Survey Second Edition 25" to one mile, 1899

Figure 5: Ordnance Survey Third Edition 6" to one mile, 1920

10.2 PLATES

Plate 1: Site **59**, ridge and furrow and burgage plot boundaries

Plate 2: Site **60**, ridge and furrow

Plate 3: Site **69**, ridge and furrow

Plate 4: Site **39**, burgage plot boundaries

Plate 5: Site **48**, Maudy Lane hollow way

Plate 6: Site **36**, hollow way to the south of Great Strickland

Plate 7: Site **42**, continuation of hollow way to the south of Great Strickland

Plate 8: Site **35**, earthworks relating to Great Strickland (Site **02**) shrunken village

Plate 9: Site **70**, earthworks outside Cliburn church that relate to the shrunken village (Site **21**)

Plate 10: Site **34**, stone-covered well at Great Strickland

Plate 11: Site **74**, stone-capped well at Cliburn

Plate 12: Site **10**, reconstruction drawing of Wetherriggs Pottery showing the location of the clay extraction pit (Site **66**)

Plate 13: Site **01**, Oaklands Quarries

Plate 14: Site **11**, dismantled North Eden Railway/North Eastern Railway, Darlington Section, Eden Valley Branch

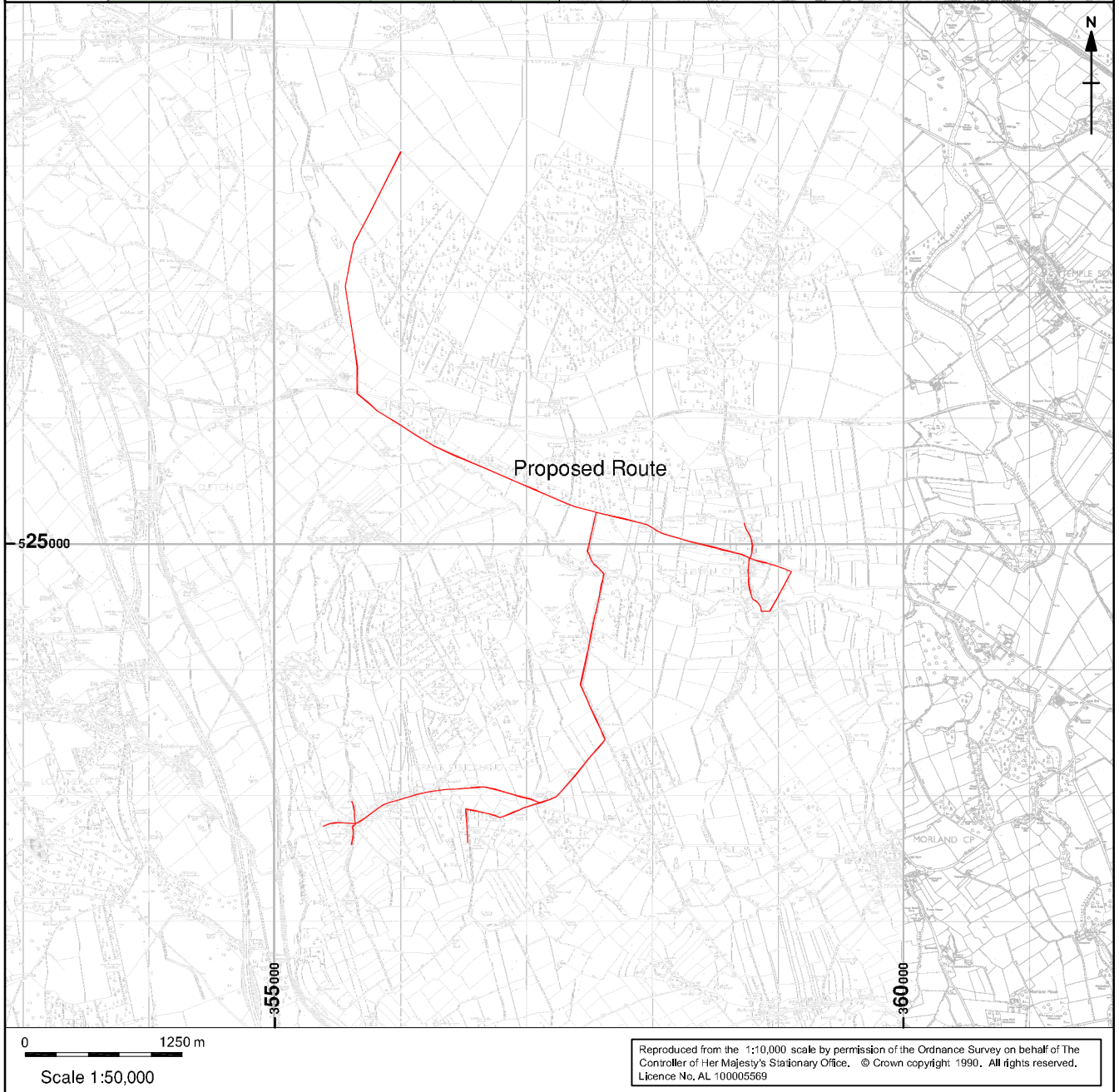


Figure 1: Site Location

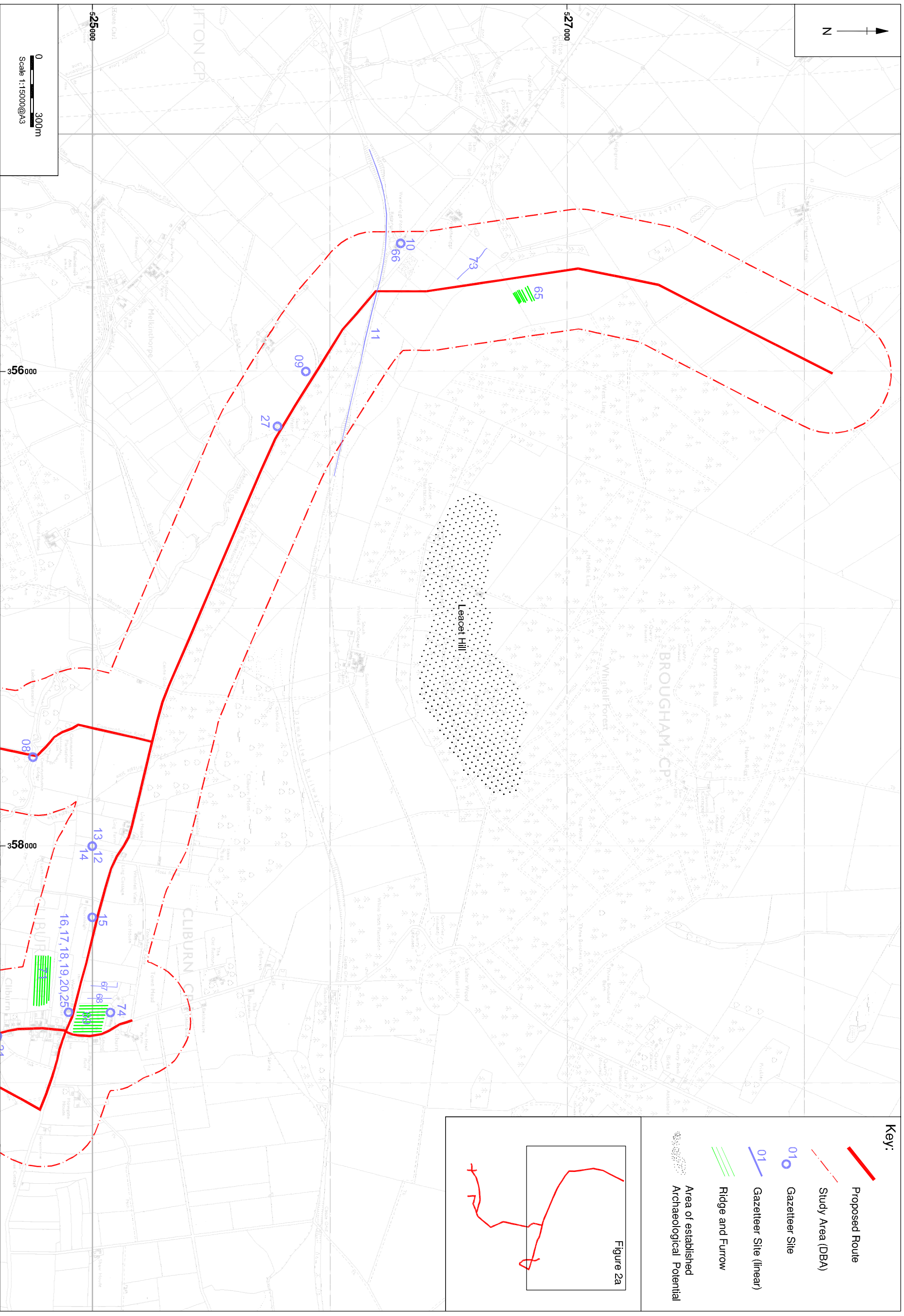


Figure 2a: Plan of gazetteer sites (north)

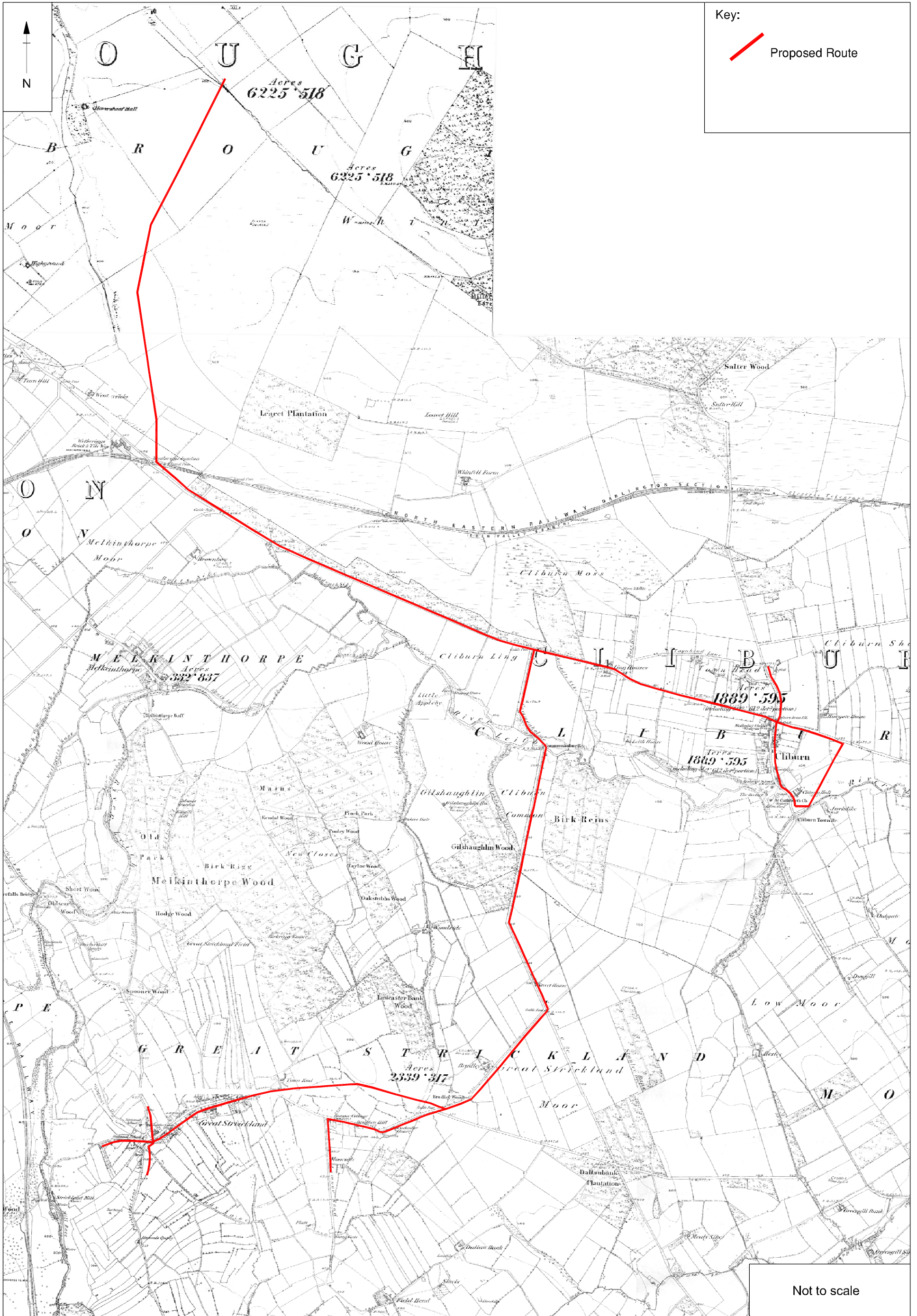


Figure 3: Ordnance Survey First Edition 6 inch to 1 mile, 1863

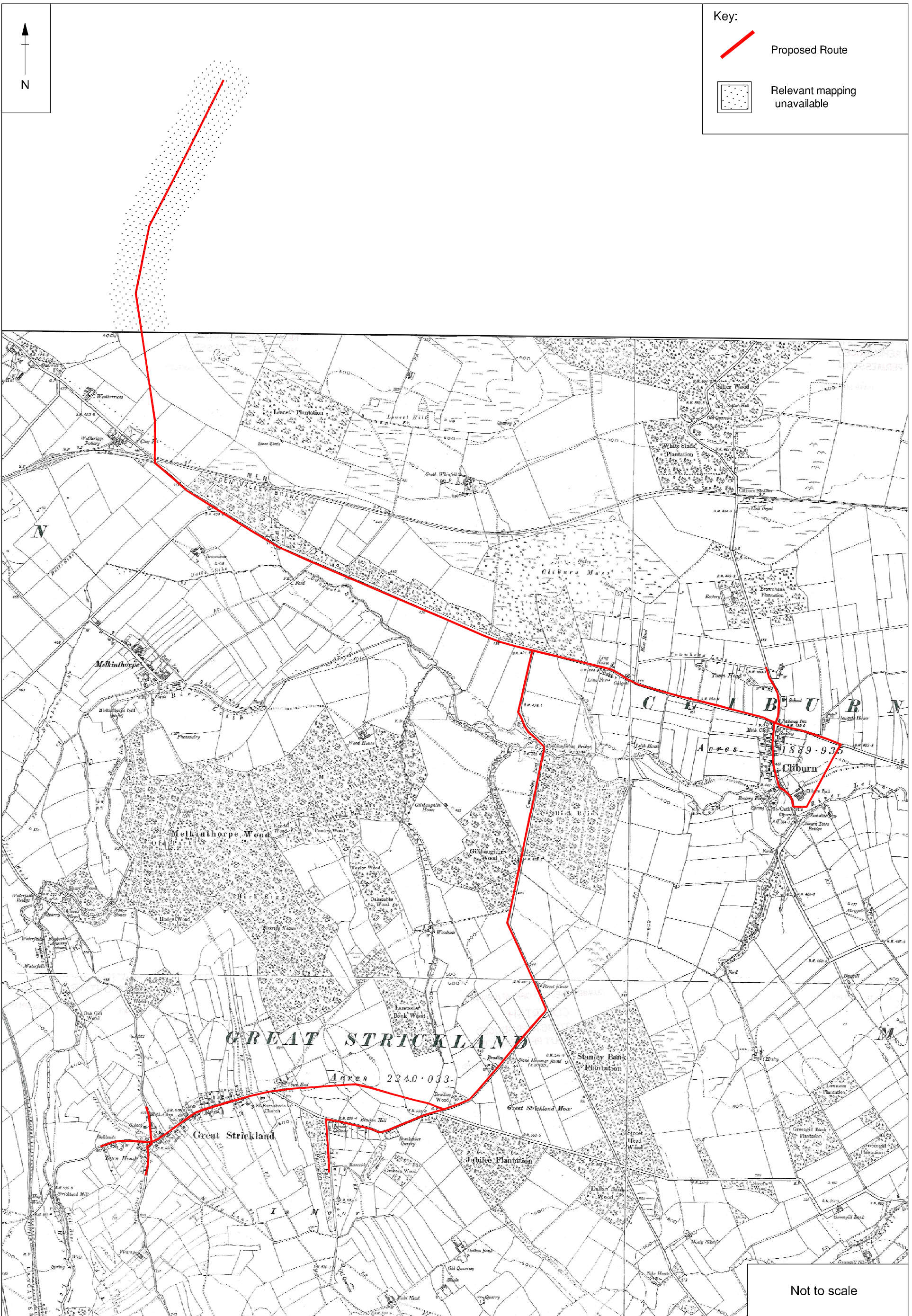
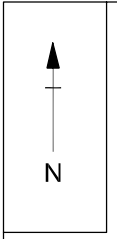


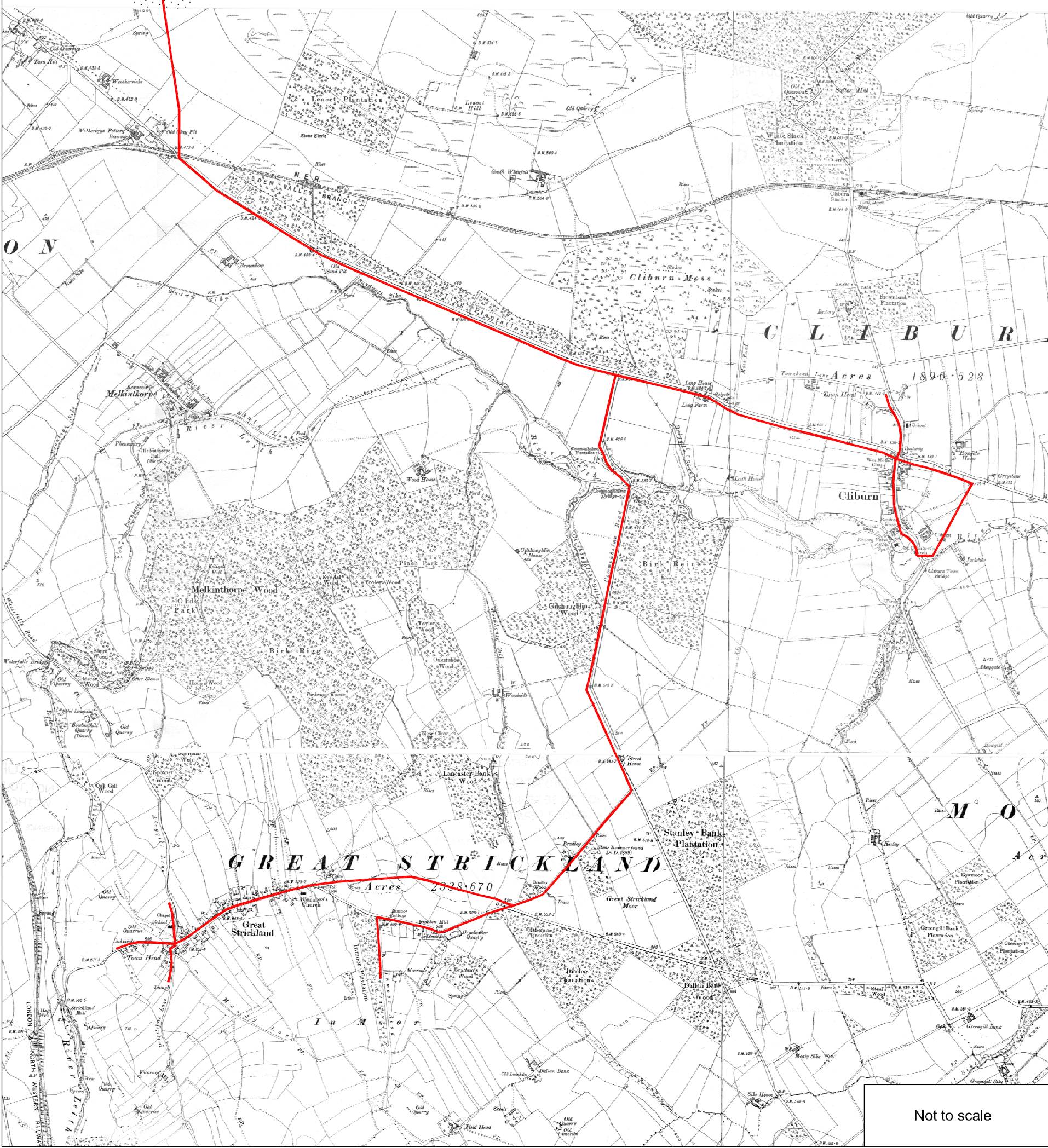


Figure 4: Ordnance Survey Second Edition 6 inch to 1 mile, 1899



Key:

-  Proposed Route
-  Relevant mapping unavailable



Not to scale

Figure 5: Ordnance Survey Third Edition 6 inch to 1 mile, 1920



Plate 1: Site **59**, ridge and furrow and burgage plot boundaries



Plate 2: Site **60**, ridge and furrow



Plate 3: Site **69**, ridge and furrow



Plate 4: Site **39**, burgage plot boundaries



Plate 5: Site **48**, Maudy Lane hollow way



Plate 6: Site **36**, hollow way to the south of Great Strickland



Plate 7: Site **42**, continuation of hollow way to the south of Great Strickland



Plate 8: Site **35**, earthworks relating to Great Strickland shrunken village (Site **02**)



Plate 9: Site **70**, earthworks to the east of Cliburn Church



Plate 10: Site **34**, stone-capped well at Great Strickland



Plate 11: Site **74**, stone-capped well at Cliburn



Plate 12: Site **10**, reconstruction drawing of Wetheriggs Pottery showing the location of the clay extraction pit (Site **66**)



Plate 13: Site **01**, Oaklands Quarries



Plate 14: Site **11**, dismantled North Eden Railway/North Eastern Railway, Darlington Section, Eden Valley Branch

APPENDIX 1: PROJECT BRIEF

**BRIEF FOR A DESK-BASED ASSESSMENT & WALKOVER SURVEY
ON THE PIPELINE ROUTE BETWEEN
CLIBURN AND WHINFELL FOREST, PENRITH, CUMBRIA**

Issued by the

County Historic Environment Service

Environment Unit, Economy, Culture and Environment



Date of Brief: 11 February 2008

This Design Brief is only valid for 1 year after the above date. After this period the County Historic Environment Service should be contacted. Any specification resulting from this Brief will only be considered for the same period.

1. SITE DESCRIPTION AND SUMMARY

Site: Proposed pipeline route between Cliburn and Whinfell Forest, Penrith

Grid Reference: between NY 5890 2440 and NY 5710 2720

Length of Pipeline: 4 kilometres

Detailed specifications and tenders are invited from appropriately resourced, qualified and experienced archaeological contractors to undertake the archaeological project outlined by this Brief and to produce a report on that work. The work should be under the direct management of either an Associate or Member of the Institute of Field Archaeologists, or equivalent, and any response to this Brief should follow IFA Standard and Guidance for Archaeological Desk-Based Assessments, 2001. The project should not commence until approval of a specification has been issued by the County Historic Environment Service.

2. PLANNING BACKGROUND

- 2.1 Cumbria County Council's County Historic Environment Service (CCCHES) has been consulted by United Utilities regarding a proposed pipeline route between Cliburn and Whinfell Forest, Penrith.
- 2.2 Further information concerning the location, extent, survival and significance of the known archaeological remains on the proposed pipeline route, as well as the potential for unknown archaeological remains to survive, is required. This Design Brief sets out the requirements for an archaeological desk-top assessment and walkover survey. An archaeological field evaluation and/or watching brief will also be required as a subsequent phase of investigation. The scope of the evaluation and/or watching brief will be dependant on the results of the desk-based assessment and walkover survey and will require the production of a separate Design Brief from this office.
- 2.3 This advice is given in accordance with the advice of the Code of Practice on Conservation, Access and Recreation 2000.

3. ARCHAEOLOGICAL BACKGROUND

- 3.1 The proposed pipeline route passes through an area that seems to have been a focus of prehistoric activity. Leacet Hill Stone Circle (Scheduled Monument no. 23660), Leacet Hill Bronze Age cremation cemetery (HER no. 16692) and a series of archaeologically excavated features on Leacet Hill (HER no. 16693) lie close to the proposed route and clearly attest to Bronze Age ritual activity, burial, and agricultural practices. Cropmark evidence (HER 5129) and flint tool finds (HER 2855) suggest this activity may have been widespread.
- 3.2 The route also passes close to the medieval village of Cliburn (HER 13603).

4. SCOPE OF THE PROJECT

4.1 Objectives

- 4.1.1 To collate and assess existing information about the archaeology of the site and to determine as fully as possible from the available evidence the nature, survival, quality, extent and importance of any archaeological remains within the development area.
- 4.1.2 To provide a detailed assessment of areas of archaeological potential and survival based on the above research and assess the potential for the use of particular investigative techniques in order to aid the formulation of any necessary mitigation strategy, including further evaluation, excavation, building recording and/or preservation of archaeological remains.
- 4.1.3 To assess the potential state of preservation for any archaeological deposits that may exist on the site, and where possible to model those deposits.
- 4.1.4 To assess the extent of any ground disturbance associated with any previous intrusive development and the potential archaeological implications of any potential development proposal.

4.1.5 To identify any remains of archaeological significance surviving above ground within the working easement of the proposed pipeline.

4.2 *Work Required*

Desk-Based Assessment

- ❖ A reassessment of aerial photographic evidence and, where relevant, a replotting of appropriate archaeological and topographical information by a suitably qualified specialist at a scale of 1:2500.
- ❖ Collation and assessment of any relevant information held in the County Historic Environment Record.
to identify important sites
to assess the potential of *known* sites
- ❖ Assessment of relevant published sources including articles in national, regional and local journals. A useful directory of the major archive, museum and library collections in Cumbria can be found in Winstanley, M & David, R, 2006, *A Guide to Cumbrian Historical Sources*, Lancaster University.
- ❖ Assessment of relevant unpublished documents including, where appropriate, reports compiled by heritage conservation professionals and students theses.
- ❖ Collation and assessment of all cartographic information relevant to the area.
to identify historic landuse
to identify any early buildings
to provide an assessment of the potential extent of disturbance to the archaeological resource
- ❖ Assessment of available geotechnical data (e.g. bore holes, test pits): relevant logs must be included as appendices
to assess the condition and status of buried deposits
to identify local geological conditions
- ❖ Assessment of the topography and landuse of the area through maps and site visits.
to assess the **archaeological potential** of areas not identified through the County Historic Environment Record
- ❖ Provision of a detailed assessment of areas of archaeological potential and survival based on the above research.

Walkover Survey

- ❖ A walkover survey of the pipeline route, encompassing the proposed working easement as a minimum, before any ground works commence.
- ❖ Any surface features of potential archaeological interest should be recorded together with areas of potentially significant disturbance, and hazards and constraints to undertaking further archaeological work on site (including the siting of live services, Tree Preservation Orders and public footpaths).
- ❖ The extent (for sites over 10m in size) and location of the archaeological sites should be recorded at an accuracy of +/- 1m.

5. SPECIFICATION

5.1 Before the project commences a project proposal must be submitted to and approved by the County Historic Environment Service.

5.2 Proposals to meet this Brief should take the form of a detailed specification prepared in accordance with the recommendations of *The Management of Archaeological Projects*, 2nd ed. 1991, and must include:

- ❖ A description of the methodology to be employed

- ❖ A description of the report that will be produced
- ❖ Details of key project staff, including the names of the project manager, supervisor and any other specialist sub-contractors to be employed
- ❖ Details of project staffing, expressed in terms of person days
- ❖ A projected timetable for all work including the production of the report

5.3 Any significant variations to the specification must be agreed by the County Historic Environment Service in advance.

6. REPORTING AND PUBLICATION

6.1 The archaeological work should result in a report, this should include as a minimum:

- ❖ A site location plan, related to the national grid
- ❖ A front cover/frontispiece which includes the planning application number and the national grid reference of the site
- ❖ A concise, non-technical summary of the results
- ❖ A description of the methodology employed, work undertaken and the results obtained, including maps and other illustrations, as appropriate
- ❖ A discussion of the archaeological implications of the proposed development, identifying areas of greatest archaeological potential within the development site and areas where this is at greatest risk in terms of the development proposals
- ❖ Plans at an appropriate scale and related to the national grid showing any features of archaeological significance identified in the desk-based assessment and walkover survey
- ❖ Clear identification of any hazards to undertaking further archaeological work on site
- ❖ Recommendations for further archaeological work.
- ❖ The dates on which the project was undertaken

6.2 Two copies of the report should be deposited with the County Historic Environment Record within two months of completion of fieldwork. This will be on the understanding that the report will be made available as a public document through the County Historic Environment Record.

6.3 The involvement of the County Historic Environment Service should be acknowledged in any report or publication generated by this project.

6.4 Should further archaeological work result from the desk-based assessment, the results may need to be made available for inclusion in a summary report to a suitable regional or national archaeological publication.

6.5 Cumbria HER is taking part in the *Online Access to Index of Archaeological Investigations (OASIS)* project. The online OASIS form at <http://ads.ahds.ac.uk/project/oasis> must therefore also be completed as part of the project. Information on projects undertaken in Cumbria will be made available through the above website, unless otherwise agreed.

7. THE ARCHIVE

7.1 An archive must be prepared in accordance with the recommendations in Brown, DH, 2007, *Archaeological Archives A Guide To Best Practice In Creation, Compilation, Transfer and Curation*, Archaeological Archives Forum. Arrangements must be made for its long term storage and deposition with an appropriate repository. A copy shall also be offered to the National Monuments Record.

7.2 The County Historic Environment Service must be notified of the arrangements made.

8. PROJECT MONITORING

8.1 One weeks notice must be given to the County Historic Environment Service prior to the commencement of the project.

9. FURTHER REQUIREMENTS

- 9.1 It is the archaeological contractor's responsibility to establish safe working practices in terms of current health and safety legislation, to ensure site access and to obtain notification of hazards (eg. services, contaminated ground, etc.). **The County Historic Environment Service bears no responsibility for the inclusion or exclusion of such information within this Brief or subsequent specification.**
- 9.2 The Code of Conduct of the Institute of Field Archaeologists must be followed.

10. FURTHER INFORMATION

For further information regarding this Brief, contact

Jeremy Parsons
Assistant Archaeologist
Cumbria County Council
County Offices
Kendal
Cumbria LA9 4RQ
Tel: 01539 773431
Email: Jeremy.Parsons@cumbriacc.gov.uk

For further information regarding the County Historic Environment Record, contact

Jo Mackintosh
Historic Environment Records Officer
Cumbria County Council
County Offices
Kendal
Cumbria LA9 4RQ
Tel: 01539 773432
Email: jo.mackintosh@cumbriacc.gov.uk