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## **SUMMARY**

Recent archaeological reconnaissance identified a corridor of soil that corresponded to the plotted course of the vallum in close proximity to the road between Burgh-by-Sands and Carlisle. It would appear highly likely that this landscape feature represents the vallum and that the course identified by English Heritage remains correct.

English Heritage requested further fieldwork to ascertain whether other landscape and individual archaeological features were present pertaining to the vallum.

There existed no evidence for a berm or bank features synonymous elsewhere with the Roman vallum.

An undated metalled track measuring 2.70m in width within a holloway respected the vallum, its location approximately 18m south of the southern edge of the vallum.

All other features observed constituted modern services and disturbance.

## 1. INTRODUCTION

### 1.1 Project Origins

In 2007 Cumbria County Council's Historic Environment Service (CCHES) was consulted by Carlisle City Council regarding planning permission for a series of dwellings at Monkhill Farm, Monkhill, (planning application 1/07/0134).

Summarily, planning approval was refused, one of the impediments cited being the possibility of compromising the vallum belonging to Hadrian's Wall; Scheduled Monument No. 26118 in which the footprint of the development was to be located.

The evaluation in 2007, failed to identify the vallum in three separate trenches and it was suggested that the course of the monument may have been inaccurately located (Marshall 2007, 11). Moreover, if the course of the vallum lay elsewhere it could be potentially unprotected and not subject to statutory protection.

The development proposals fell into abeyance but the client now wishes to re-submit a planning application with an updated archaeological statement that includes new research.

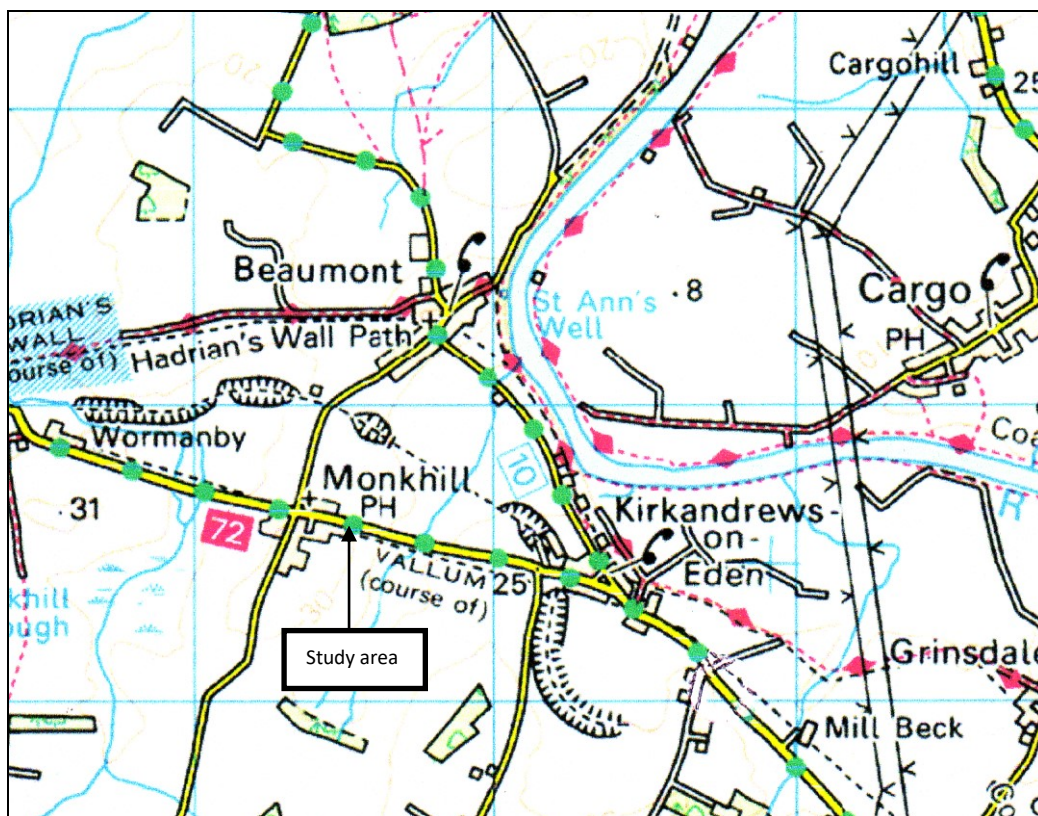


Figure 1. Site location (OS Copyright, Licence no. 100044205)

Gerry Martin Associates Ltd was commissioned by Mr William Bimson, the client to undertake a short Programme of Archaeological Reconnaissance relating to the proposed impact of the development following Scheduled Monument Consent.

This report describes the results of that archaeological reconnaissance and its archaeological context as summarised in the following report.

All projects are carried out in accordance with PPS 5 (2010) and the guidelines and recommendations issued by the Institute of Field Archaeologists and English Heritage.

Gerry Martin has achieved the accreditation level of MIfA (Member) with the Institute of Archaeologists (IfA).

## 2. METHODOLOGY

### 2.1 Project Design

The purpose of the archaeological reconnaissance was to confirm the course of the vallum (Figure 2) and identify any associated landscape or discreet archaeological features and thereby inform the architect and developer the optimum location for the development by avoiding the ancient monument (figure 3) and any other significant archaeological deposits.

Any archaeological reconnaissance at this stage was non-invasive maintaining the integrity of the monument but at the same time providing reliable and secure data for all parties involved in this project. This methodology was outlined in the Scheduled Monument Consent application subsequently granted by English Heritage in late March 2013.

The most effective method for achieving this aim was to drive two shallow trenches removing topsoil across the width of the development (figure 3), thereby ensuring that the course of the vallum, whilst any other linear features would be captured at some point.

In order to maintain the integrity of the monument, no excavation was proposed by the contractor, but limited cleaning of features was undertaken in order to define function and form.

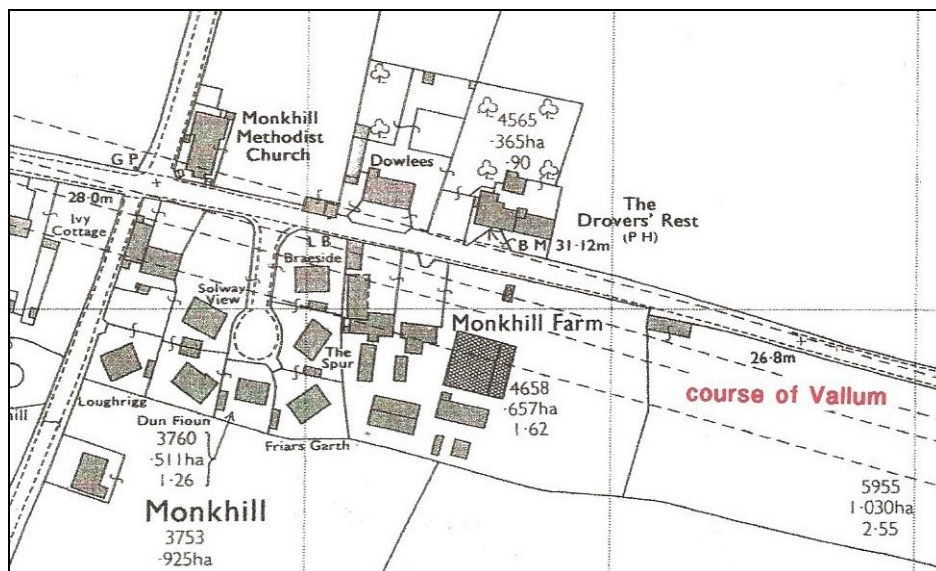


Figure 2. Site location in detail

The following report has been assembled to the relevant standards and protocols of the Institute of Field Archaeologists (Standard and Guidance for Archaeological Reports, 2008), combined with accepted best practice.

Fieldwork took place on March 26<sup>th</sup> and March 28<sup>th</sup> 2013.



Figure 3. Scheduled area (shaded red)

## 2.2 Archive

The archive has been compiled in accordance with the project design and the guidelines set out by English Heritage (1991) and the Institute of Field Archaeologists (1994).

The project seeks to promote and apply the Hadrian's Wall Research Strategy as outlined by English Heritage (Symonds & Mason 2009).

The archive will be deposited with an appropriate repository, Tullie House Museum, Carlisle and a copy of the report donated to the County Sites and Monuments Record, as a courtesy to the curatorial authority.

## 3. BACKGROUND

### 3.1 Location, topography and geology

The study area NY 34500 58560 is partially located along the course of the vallum and just south of the Burgh-Carlisle road. The site lies approximately 1 mile east of Burgh-by-Sands and 4 miles west of Carlisle.



The study area is situated on a prominent bluff at circa 30m OD, the land falling away to the east towards Monkhill Beck, a descent westwards and bounded by Solway marshland further north.

The local geology has produced a relatively heavy soil with a high clay content due to the local underlying pink Boulder Clay and orange alluvial sands and gravel laid during successive glaciations between 2,000,000 and 12,000 years ago.

Solid geology comprises of bedded Permian and Triassic red sandstone laid between 200,000,000 and 300,000,000 years ago.

#### **4. HISTORICAL CONTEXT**

##### **4.1 Desk-based assessment**

The study area (Figure 1, NY 34500 58560) lies within a landscape associated with Hadrian's Wall that forms part of a World Heritage Site.

In particular it lies to the south of the line of Hadrian's Walls vallum (Scheduled Monument no. 26118). In this area, the vallum diverges from the Wall. The vallum runs as a straight course by Monkhill and Wormanby to Burgh-by-Sands, lying south of the modern road to Monkhill and then crossing north. The ditch is well-developed at Monkhill Beck, just before its approach to (sic) Beaumont (Collingwood 1978, 245) actually Monkhill.

Aerial photographic evidence reveals a series of crop-marks immediately to the south of Monkhill Hall, an established property approximately 250m south of Monkhill Farm, thought to be part of a temporary Roman camp (Historic Environment no. 426), circa 65m x 45m in size, although no trace has been observed on the ground.

In 1995 aerial photography revealed a possible circular plan watchtower (HER no. 15237), 20m in diameter, close to modern farm buildings at Monkhill Hall.

New photographs taken during the summer of 2006 suggested an east-west aligned ditch approximately 130m in length, projecting westwards from a long, narrow north-south aligned enclosure (130m x 30m) approximately 300m southwards. This enclosure nestled against a long north-south aligned field boundary approximately 480m in length. Provisionally, these crop-marks have been interpreted as Roman ditches indicative of Roman rural settlement in this vicinity.

In close proximity to the putative watchtower (HER 15237), was a rectangular enclosure approximately 40m x 30m in size.

The possibility of Roman camps in this vicinity is unsurprising. At Cummersdale and Knockupworth, forts have been found during aerial reconnaissance (McCarthy 1999, 177) and this appears to reinforce the strategic importance of Carlisle and the established fort at Burgh-by-Sands during the late first and second centuries AD.

The area was probably a rich agricultural area during the Roman period growing wheat and barley for the nearby military centres. This produced a landscape of rectilinear field systems bounded by ditches, tracks and hedges with intermittent farmsteads. The typical farmstead was set inside a ditched and embanked enclosure, which varied in plan. Within the enclosure were rectangular and

circular plan buildings (suggestive of both native and Roman influence), cobbled yards and some degree of drainage (McCarthy 1993, 24-25). These farmsteads do not appear to be materially ostentatious reflecting functional use rather than any suggestion of social mobility or stratification.

Finally, a number of watching briefs and archaeological evaluations have been undertaken recently in this vicinity.

- A watching brief in 2005 on behalf of United Utilities, revealed two ditch cuts associated with the vallum at NGR 334325 558600 (Jefferson 2006, 245).
- A watching brief conducted at the adjacent property Monkhill Maulds during 2005 produced no cultural deposits of any antiquity (Martin 2005, 4).
- An evaluation at Hall Croft, Monkhill produced no deposits of any antiquity, a linear crop-mark identified as a modern drain (Martin 2007, 11).
- An evaluation within the development during 2007 failed to identify the course of the vallum (Marshall 2007, 10).
- An evaluation at land near Monkhill, Carlisle, (NY 34430 58900) that revealed probable Iron Age or earlier segmented field ditches (Martin 2008, 11)



Figure 4. 1831 Tithe map DRX/769/22



The 1831 tithe map DRX/769/22 denotes that the property was owned by William Dand who resided at the adjacent farmhouse, Monkhill Farm. The study area measured one acre and nineteen perches and the proportions of the field remained unchanged to the present day, albeit the boundary between the house and the study area has been removed.

Interestingly, the vallum is not depicted on the tithe map whilst at least one building in Monkhill straddled the course of the ditch. This suggests that a significant proportion of the vallum must have been backfilled by 1831.

The 1868 Ordnance Survey twenty five Inch map covers plots 314 and 315 (figure 5) and describes the study area as comprising of three elements; a small field or paddock (315), an enclosed front garden (314) and a suite of buildings and outbuildings with a rear garden (314).

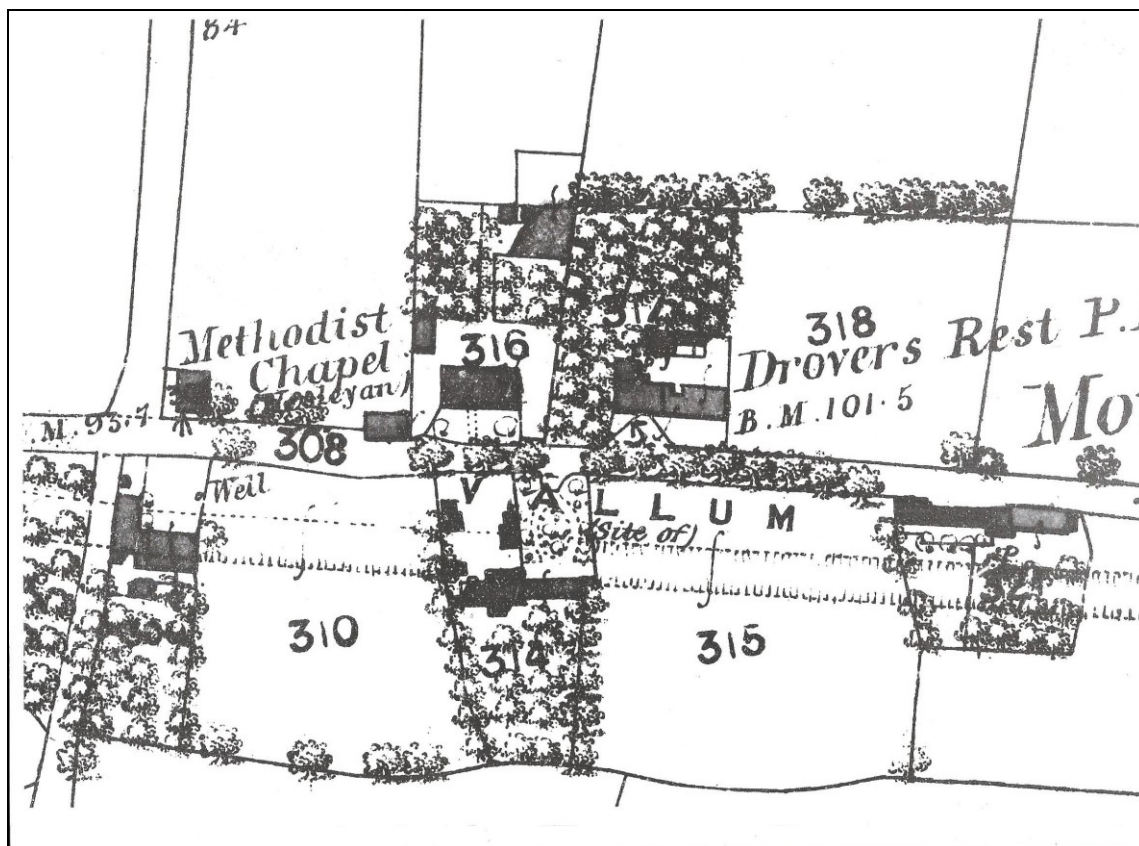


Figure 5. Ordnance Survey map of 1868

The 1868 map reveals a suite of buildings that included an east-west aligned structure (Monkhill Farm) within plot 314. The ancillary buildings do not occur on the 1831 tithe map. The spatial organisation represented by plots 314 and 315 has continued to the present.

The map does show Monkhill Farm but not as large as at present and does not illustrate a brick barn located in the north-west corner of the study area (Plot 314) presumably because it was constructed after 1868.

The vallum is clearly illustrated on the first edition map and enters the study area at its eastern end at virtually the same location as the scheduling suggests (figure 3) but maintains a straight course

whereas the scheduled monument veers slightly northwards to pass under the crossroads rather than traversing Monkhill Lane (figure 2).

The close proximity of a building representing Monkhill Farm to the vallum almost certainly proves that the ditch had been backfilled and was probably not visible at this time as a landscape feature. It appears highly likely that the representation of the vallum at this location was largely conjectural and cannot be relied upon as an accurate field record (Perriam pers comm).

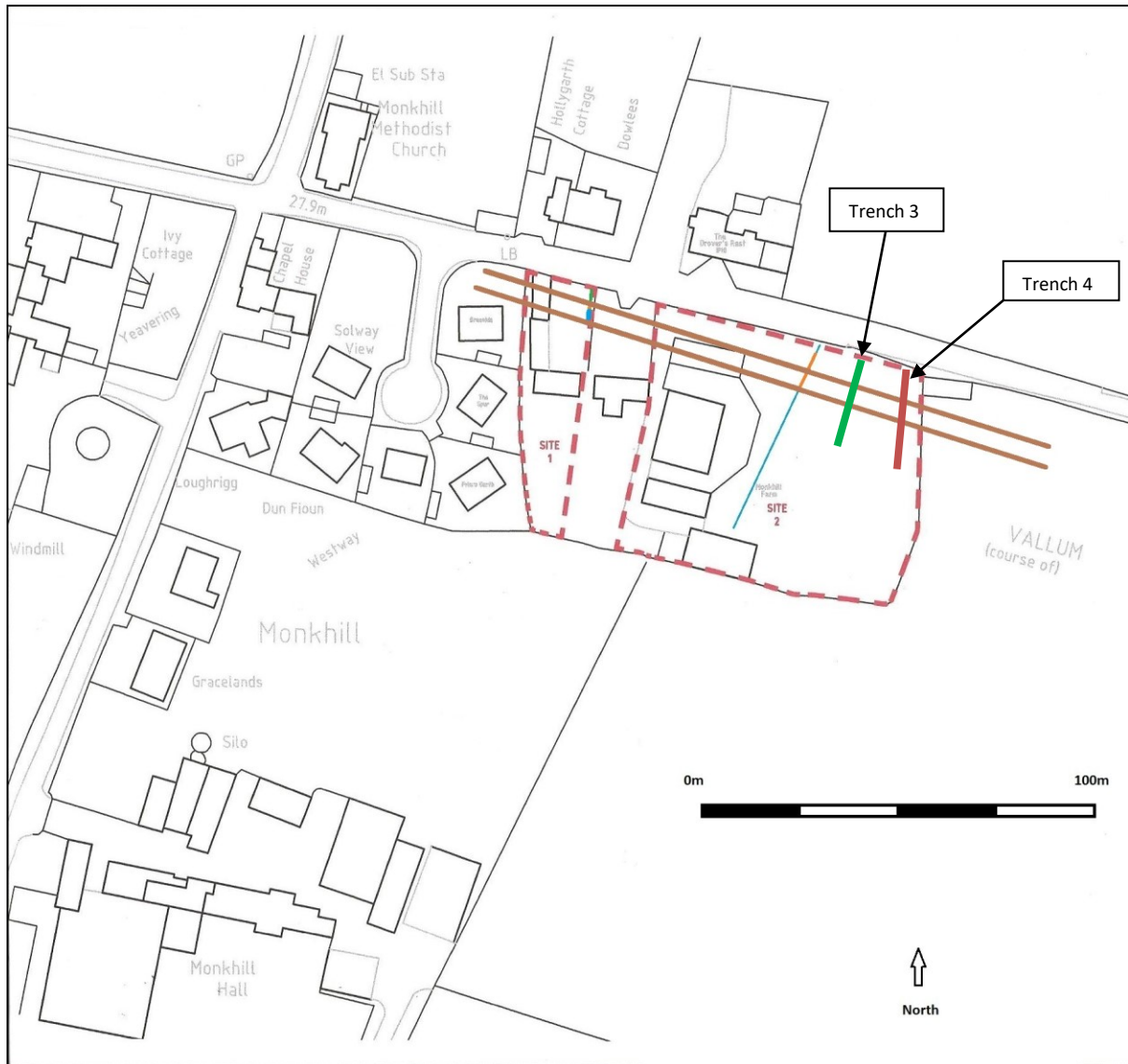


Figure 6. Course of vallum (brown outline) and location of proposed Trenches 3 and 4

## 5 RESULTS

### 5.1 Methodology

The objective of the archaeological investigation was to carry out a formal programme of archaeological observations and investigations. The specific aims of the fieldwork were to:

- Provide a record of those works associated with the removal of the topsoil

- Provide a record of any significant archaeological or architectural features encountered by intrusive activities
- Ascertain the archaeological issues involved with any future development of the site
- Provide reliable data in order for English Heritage to judge the planning application

The ground-works were undertaken by JCB excavating machine under archaeological supervision. This action consisted of observation of the spoil removal and monitoring the displaced soil. Revealed sections were checked for any past cultural activity and if necessary recorded according to the protocols of the GMA manual.

The trench was cleaned and all features investigated for their cultural origins. Scaled plans were drawn, photographs shot and the deposits documented according to the protocols of the GMA manual

Two trenches measuring 30m in length (figure 6) were undertaken extending from the southern edge of the vallum proceeding in a southerly direction. Any putative linear features that respected the vallum would be intercepted at a right-angle.

Trench 4 was excavated first. The intention was to keep as close as possible to the eastern limit of the development and thereby fixing a location for any linear features that exited the study area.

Trench 3 was roughly parallel with Trench 4 approximately 13m westwards. This trench would confirm any putative linear features respecting the vallum.

With the results from a trench (Martin 2012, 8-12) undertaken in error last year (figure 6, blue outline), there would be a spread of three observations which would provide an adequate sample for deducing whether associated linear features respected the vallum.

## 5.2 Results

The evaluation was undertaken in late March following an extended period of inclement and wet weather. The impervious drift geology impeded drainage producing a saturated soil. Moreover, land drainage had largely collapsed, forming localised soft spots where surface water gathered.

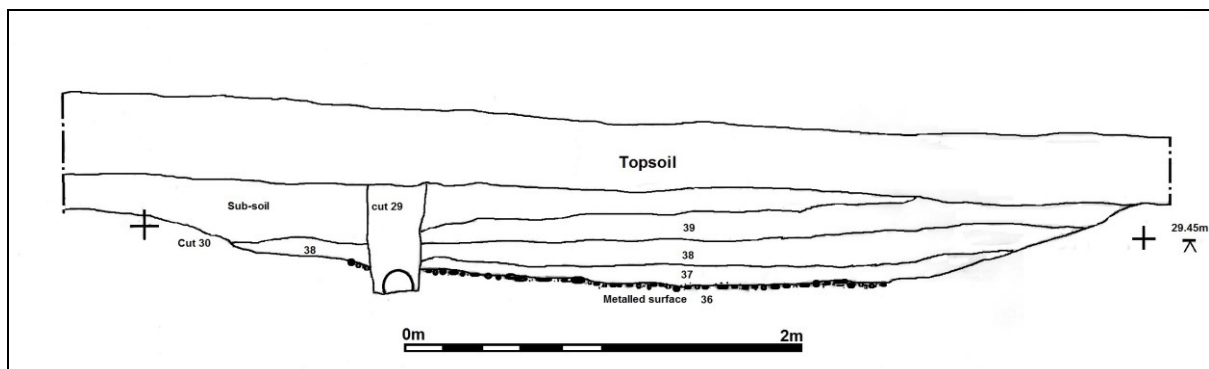


Figure 7. Section across road 30, Trench 3

Both trenches rested above virgin ground comprising pink Boulder Clay and sandy outwash.

Trench 4 being slightly lower than Trench 3 acted as a *de facto* sump allowing water to gather. In order to overcome this problem; a pump was employed to assist observations.

Trench 3 also suffered from inundation and a high degree of relatively recent intrusive activity that attempted to correct failing drainage.

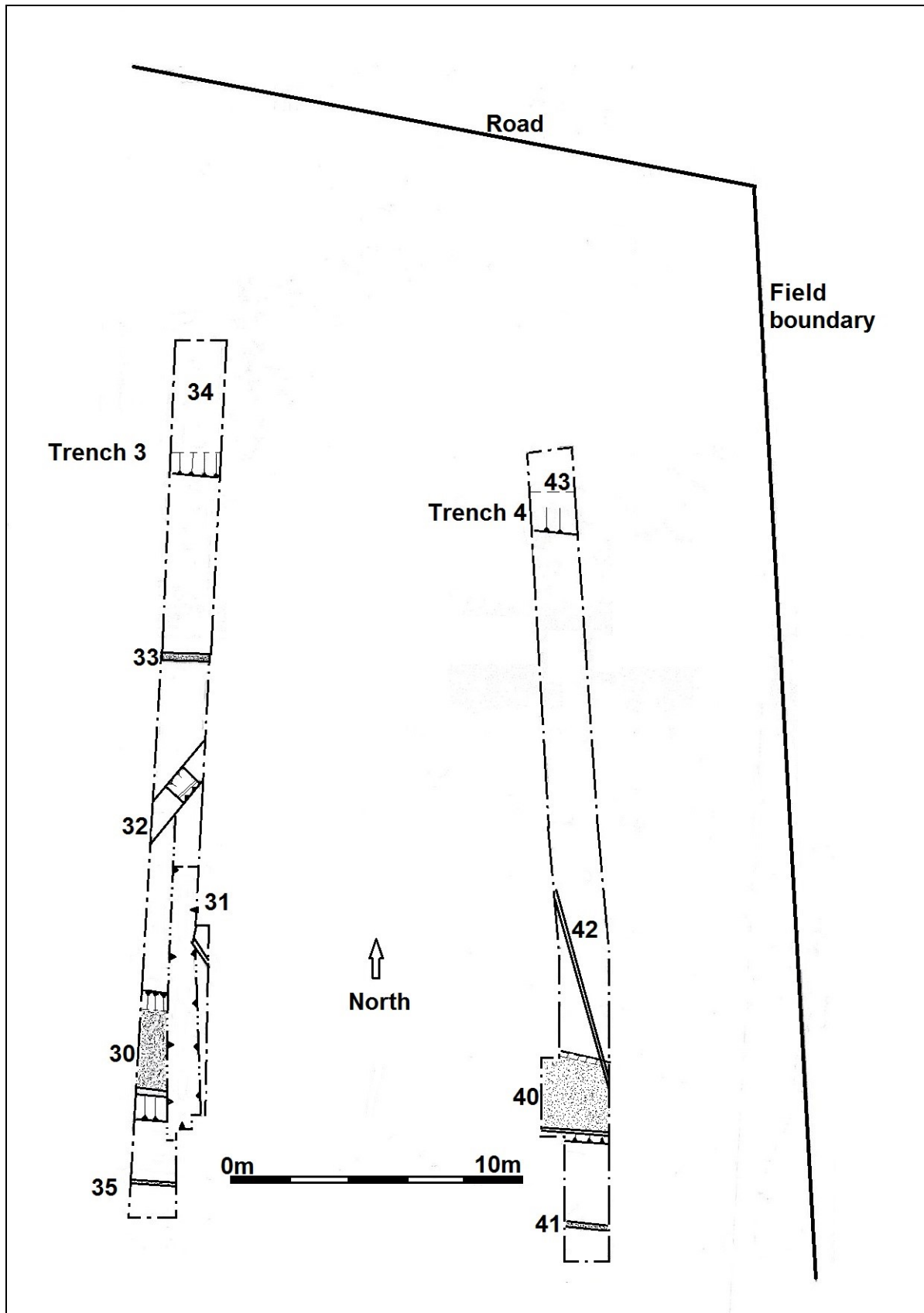


Figure 8. Plan of Trenches 3 and 4

### Trench 3

Trench 3 measured 1.60m in width and was 30m in length extending from NY 34494 58565 in the south to NY 34499 58594 in the north.

The following key observations (30-35) were undertaken within Trench 3 (figure 8)

30. Within an east-west aligned linear cut **30** measuring 4.50m in width and 0.46m in depth was a compacted single skin of small rounded pebbles 0.05m in thickness in a pale grey silt matrix overlying pink clay, forming a flat, metallised surface **36** measuring 2.70m in width (figure 9). Directly overlying a putative road or track was dark grey silt **37**, sealed by light grey-brown silt **38** that was covered by slightly pinkish brown sandy clay **39**. A land drain **29** complete with ceramic tile cut this sequence but was sealed by dark brown topsoil (figure 7).
31. Fill **28** of land drain **29** was penetrated by a modern north-south aligned intrusion **31** (figure 10). This feature was at least twelve metres in length and approximately 0.80m in width and comprised re-deposited pink clay **22** burying a flattened plastic land drain. Evidently, this was an *ad hoc* repair robbing a former ceramic land drain as the effectiveness of the drainage system deteriorated.
32. A northeast-south-west aligned cut **32** containing a plastic land drain backfilled by dark grey-brown sandy silt **27** (figure 12).
33. An east-west aligned stone land drain cut **33** filled with loosed rounded pebbles **26**; no soil matrix present (figure 13).
34. The southern edge of the vallum **34** filled by a tertiary fill of dark brown sandy silt **25** (figure 11).
35. An east-west aligned stone land drain cut **35** filled with loose rounded pebbles **24**; no soil matrix present (figure 14).

The topsoil cover within Trench 3 consisted of dark grey-brown loam. At the southern end of the trench it measured 0.55m in thickness, declining to 0.50m in thickness at 10m and 20m intervals before rising at the northern end.

Overlying the vallum, the cover measured 1.10m in depth comprising of 0.30m of topsoil, 0.20m of grey pebbly silt, 0.20m of made ground formed from clay and 0.30m of re-deposited brown soil containing modern glass from former greenhouses (figure 15).

There appeared to be no evidence for a bank or berm between the holloway **30** and the vallum **34** although tenuously the pinkish brown sandy silt **39** emanating from the north side of track **36** could represent wash from a putative bank.

The trench did reveal a system of ceramic land drains and *ad hoc* repairs **31-33** and **35** inserted in the 19<sup>th</sup> century and maintained since that date. This system had fallen into disrepair. Understanding this connectivity was difficult, the configuration appearing not to obey the natural fall of the land and the usual intervals between lines of tiles.





Figure 9. Holloway 30, Trench 3



Figure 10. Pipe Trench 31, Trench 3



Figure 11. South side of vallum 34, Trench 3





Figure 12. Pipe trench 32, Trench 3



Figure 13. Stone land drain 33, Trench 3



Figure 14. Stone land drain 35, Trench 3



Figure 15. Overburden above the vallum 34

#### Trench 4

Trench 4 measured 1.60m in width and 30m in length extending from NY 344507 58560 to the south and NY 34510 58590 to the north.

The following key observations (40-44) were undertaken within Trench 4 (figure 8).

40. Linear cut **40** corresponded to holloway **30** in Trench 3. The holloway was less pronounced approximately 3.50m in width and 0.30m in depth. Detailed observation was hindered following inundation by water but consisted of a metallated surface **46** formed from small rounded pebbles compacted to form a level surface. No roadside gully was present. Overlying the metallating was the same sequence as in Trench 3; dark grey silt **47**, sealed by light grey-brown silt **48** that was covered by slightly pinkish brown sandy clay **49**. A land drain **45** (the same as land drain **29**) complete with ceramic tile cut this sequence but was sealed by dark brown topsoil (figure 16).
41. An east-west aligned linear stone land drain **41** filled with loose rounded pebbles **23**; no soil matrix present (figure 17) being the same as land drain **35** in Trench 3.
42. A northwest-southeast aligned linear land drain **42** filled with extant ceramic tiles **23** (figure 18).
43. The southern edge of the vallum **43** filled by a tertiary fill of dark brown sandy silt **44** (figure 19).



The topsoil cover within Trench 4 consisted of dark grey-brown loam. At the southern end of the trench it measured 0.50m in thickness, rising to 0.65m in thickness at 10m and 0.60m in depth at 20m intervals before once more rising at the northern end.

Overlying the vallum, the cover measured 1.10m in depth comprising of 0.30m of topsoil, 0.20m of grey pebbly silt, 0.20m of made ground formed from clay and 0.30m of re-deposited brown soil containing modern glass from former greenhouses (figure 20).

At the mid-point of the trench, clay and debris had been deposited within the overburden.

There appeared to be no evidence for a bank or berm between the holloway **40** and the vallum **43**.



Figure 16. Holloway 40, Trench 4 in section



Figure 17. Stone land drain 41, Trench 4



Figure 18. Ceramic land drain 42, Trench 4



Figure 19. Vallum 43, Trench 4



Figure 20. Overburden above the vallum 43

### 5.3 Discussion

From north to south, the Roman frontier usually consisted of the following principal elements:

- A row of forts built 5 to 10 miles (16 km) north of the wall, used for scouting and intelligence such as Bewcastle
- A glacis and a deep ditch
- A berm with rows of pits holding entanglements
- The curtain wall
- A later military road (the Military Way)
- The Vallum.

The vallum was constructed after most of the forts had been added and the Wall completed.

Classically, the vallum comprises a steep-sided ditch usually 6m in width and 3m in depth with a flat base flanked by two mounds north and south, set back approximately 9m from the ditch edge and probably constructed to deny multiple crossings up to the Wall or to delimit a prohibited zone close to the Wall.

In this instance, south of the vallum and within the scheduled area, no archaeological features were encountered that could be directly associated with the Roman frontier system that would include either a bank or berm.

The only feature of potential antiquity encountered was an east-west aligned linear metalled track that filled a holloway **30** and **40**.

Cartographic evidence (figure 4) illustrates that the route was not extant in 1831, replaced by the current road from Carlisle to Burgh-by-Sands. Moreover, as the field system did not respect holloway **30/40** it can be assumed that the metalled track pre-dated this organisation of space.

The largely unchanged field systems in Monkhill almost certainly date at least to the Medieval period suggesting that the track fell into disuse by this time.



Aerial photography has suggested a number of landscape features within this area but none appear to corroborate the existence of this track, rather they reflect ditches associated with field systems and enclosures.

The close proximity of an undated metalled track to the vallum, a distance of approximately 18m, demonstrates that the track obeyed the alignment of the ditch. The margin could easily have accommodated any bank associated with the vallum, a putative feature that if it existed, has been totally slighted.

However, traces of a pink sand and clay **39** incoming from the north may tentatively indicate a former bank that when denuded began to drift into the holloway, as the track fell into disuse (figure 7).

The presence of a track behind the vallum bank may suggest that this was not part of the original military design, but a fortuitous use of available space albeit probably dating to the Roman period.

The metalled track lacked roadside gullies or drains and was only 2.70m in width, seemingly inadequate for bearing the traffic associated with a formal Roman road. Moreover, the holloway would have served as a *de facto* ditch as surface water must have accumulated during wet weather.

Indeed, when the track became buried following disuse, it inadvertently served as a soke-away, accounting for the “washed” appearance of the overlying silts **37-39**.

Although this track which may have linked the permanent Roman forts at Carlisle and Burgh-by-Sands possibly via the marching camps at Knockupworth (McCarthy op cit) and to a lesser degree Grinsdale, it appears probable that its main purpose was as a minor route serving farmsteads in close proximity to the frontier, quite possibly accessing local markets or military facilities in Carlisle or perhaps Burgh-by-Sands located only one mile away.

#### **5.4 Finds and environmental analysis**

Other than modern surface finds, predominantly broken panes of glass, no artefacts were present that warranted collection.

Inundation by water compromised any environmental sampling above the holloway although any future research may provide the opportunity to review this position.

#### **5.5 Development implications**

Excluding the course of the vallum, the recent evaluation strongly suggests that few if any archaeological features will be encountered within the scheduled area of the proposed development footprint.



The minor metalled road, approximately 18m from the southern edge of the vallum and 31m from the northern hedge appears to be either on the margins of the scheduled area or just outside of its limits.

Landscape feature will require monitoring such as a watching brief or limited excavation preceding the development. There is no direct evidence linking it to the initiation of the military frontier system, but it appears likely that it was current when the ditch was a major landscape feature. Undoubtedly, the metalled track respected the spatial arrangement of the vallum.

The metalled track appears to pass within the proposed buildings in Plots 1 -3 (figure 21) and the access road.

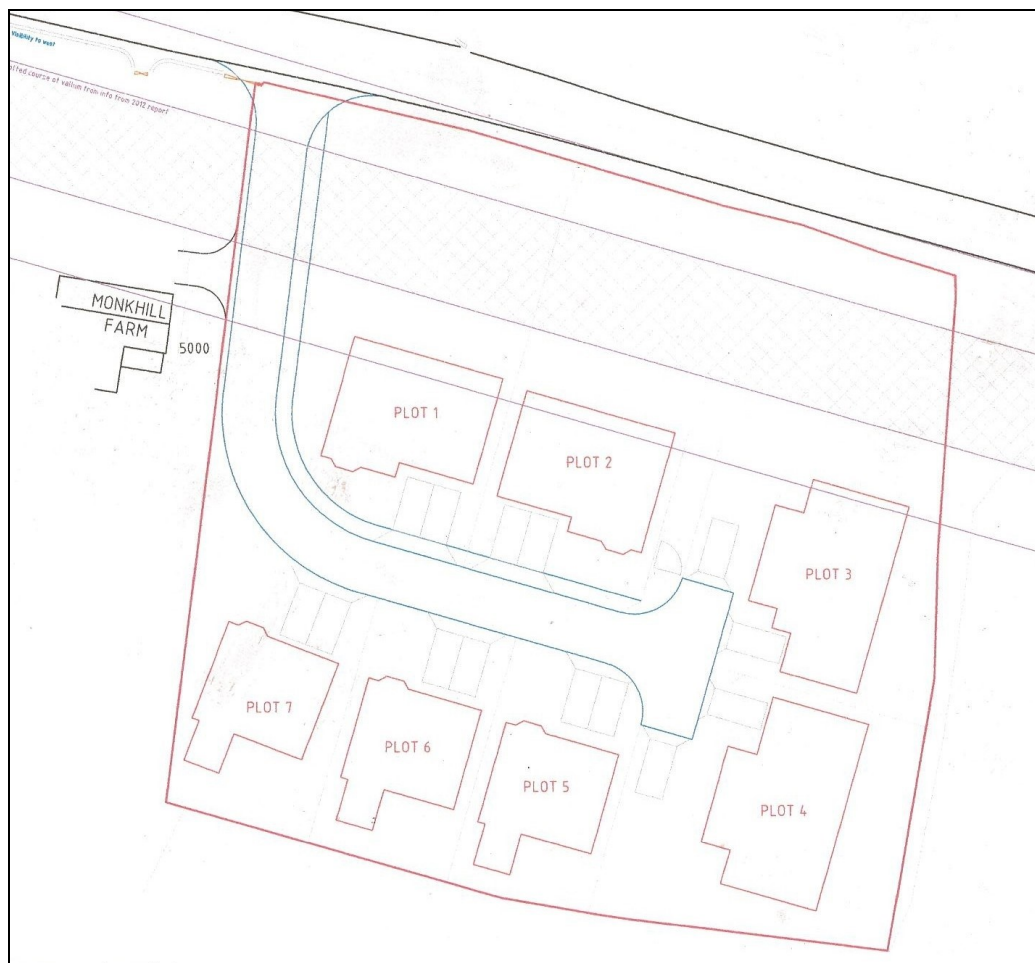


Figure 21. Lay-out for the proposed development

The topsoil cover was substantial being between 0.50m and 0.65m in depth leading to a thickness of 1.10m above the scheduled vallum.

If further spoil from the buildings' footings is deposited above the vallum, this should provide a substantial margin to protect the monument from clandestine interventions such as root activity or shallow features such as post-holes.

Former land drains within the study area no longer function and will require replacement in order to avoid soft or wet spots developing.

The intention of the developer is to build seven houses as part of a staged programme beginning with the plots on the southern side of the development. This will involve the insertion of footings and foundations excavated from ground level rather than wholesale clearance of the sites' topsoil.

The advantage of this methodology would be that only a small proportion of the site will be affected by removal of the overlying protective topsoil. Any potential archaeological deposits would therefore remain largely intact.

The disadvantage for the archaeological observer lies in a fragmented understanding of the site, albeit spatial organisation of this frontier margin should be achievable through a programme of watching brief observations.

In conclusion, the deposit model formulated by this archaeological evaluation suggests that due to the lack of associated landscape features and past settlement, the development will have minimal impact upon any putative archaeological deposits and will probably improve and sustain the integrity of the scheduled monument as future protection of the monument would be easier to manage.

## 6. ACKNOWLEDGMENTS

I am grateful to Mr William Bimson for commissioning the project and to Mr David Gray for his assistance with the plans and development details. I would also like to thank the staff of Carlisle Library with my research into the local history of the area and the staff of Cumbria Record Office, Carlisle with the map regression and other documentary research.

I am also grateful to Barry Harrison for his knowledge of the study area over the best part of sixty years and to Dennis Perriam for his suggestions regarding 19<sup>th</sup> century mapping.

## 7. BIBLIOGRAPHY

- |                 |   |
|-----------------|---|
| Andrews, G.     | Management of Archaeological Projects, English Heritage 2nd edition 1991, London  |
| Brown, D.H.     | Archaeological Archives a Guide to Best Practice in Creation, Compilation, Transfer and Curation, London 2007   |
| Hodgson, N.     | Hadrians' Wall 1999-2009. Newcastle 2009  |
| IFA             | Institute of Field Archaeologists' Standards & Guidance documents (Desk-Based Assessments, Watching Briefs, Evaluations, Investigation and Recording of Standing Buildings, Finds), London 2008 |
| Collingwood, J. | Handbook to the Roman Wall. Glasgow 1978  |

Jefferson, P.R. Cumberland and Westmorland Arch Trans, Kendal 2006

Martin, G.M.T. A Watching Brief conducted at Monkhill, Hall, GMA Report 10, 2005

Martin, G.M.T. An Archaeological Evaluation conducted at Hall Croft, Monkhill, GMA Report 21, 2007

Martin, G.M.T. An Archaeological Evaluation conducted at Land north of, Monkhill, GMA Report 25, 2008

Martin, G.M.T. An Archaeological Survey at Monkhill Farm, Monkhill, GMA Report 106, 2012

Martin, G.M.T. A Heritage Statement at Monkhill Farm, Monkhill, GMA Report 110, 2013

Marshall, G.J. Archaeological Evaluation Report, Land to the West of Monkhill Farm, Monkhill, GMA Report 34, 2007

McCarthy, M.R. Carlisle History and Guide. Trowbridge 1993.

McCarthy, M.R. *Survey and Excavation on Hadrian's Wall*. Hadrian's Wall 1989-1999 Ed Bidwell, P. Kendal 1999.

Symonds, M. & Mason, D.J.P. *Frontiers of knowledge. A Research Framework for Hadrian's Wall*, Durham, 2009

**CONTEXT TABLE**

Context	Type	Same as	Part of	Interpretation	Photo	Length	Width	Depth
22	Fill	-	31	Pipe trench	-	12m	0.80m	0.60m
23	Fill	-	42	Land drain	-	7.00m	0.20m	0.15m
24	Fill	45	35	Land drain	-	1.50m	0.30m	u/x
25	Fill	44	34	Vallum ditch	-	1.50m	4.50m	u/x
26	Fill	-	33	Land drain	-	1.50m	0.30m	u/x
27	Fill	-	32	Pipe trench	-	2.50m	0.80m	0.60m
28	Fill	-	29	Land drain	-	1.50m	0.26m	0.50m
29	Cut	-	-	Land drain	-	1.50m	0.26m	0.50m
30	Cut	40	-	Holloway	55-60, 64-65, 121-124	1.50m	4.50m	0.48m
31	Cut	-	-	Pipe trench	67-69	12m	0.80m	0.60m
32	Cut	-	-	Pipe trench	70-73	2.50m	0.80m	0.60m
33	Cut	-	-	Land drain	74-76	1.50m	0.30m	u/x
34	Cut	43	-	Vallum ditch	77-81	1.50m	4.50m	u/x
35	Cut	41	-	Land drain	84-86	1.50m	0.30m	u/x
36	Fill	46	30	Road metal	-	1.50m	2.70m	0.05m
37	Fill	47	30	Overburden	-	1.50m	3.00m	0.08m
38	Fill	48	30	Overburden	-	1.50m	3.90m	0.15m
39	Fill	49	30	Overburden	-	1.50m	3.50m	0.20m
40	Cut	30	-	Holloway	94-101	1.50m	4.50m	0.30m
41	Cut	35	-	Land drain	104-105	1.50m	0.30m	u/x
42	Cut	-	-	Land drain	106-111	7.00m	0.20m	0.15m
43	Cut			Vallum ditch	109-111, 115- 117	1.50m	2.50m	u/x
44	Fill	25	43	Vallum ditch	-	1.50m	2.50m	u/x

45	Cut	24	41	Land drain	-	1.50m	0.30m	u/x
46	Fill	36	40	Road metal	-	1.50m	2.70m	0.05m
47	Fill	37	40	Overburden	-	1.50m	3.00m	0.08m
48	Fill	38	40	Overburden	-	1.50m	3.90m	0.12m
49	Fill	39	40	Overburden	-	1.50m	3.50m	0.10m