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ENERGY AND CLIMATE CHANGE ENVIRONMENT AND SUSTAINABILITY INFRASTRUCTURE AND UTILITIES LAND AND PROPERTY MINING AND MINERAL PROCESSING MINERAL ESTATES WASTE RESOURCE MANAGEMENT



STORY HOMES LTD

LAND WEST OF SEATON ROAD, SEATON, WORKINGTON, CUMBRIA

HERITAGE IMPACT ASSESSMENT

December 2021





DATE ISSUED:	December 2021	
JOB NUMBER:	CL12622	
OASIS REFERENCE:	wardella2-502746	
REPORT NUMBER:	0.1	
NATIONAL GRID REFERENC	E: Centred on NY 0102	7 29818
STORY HOMES LTD		
LAND WEST OF SEATON ROA CUMBRIA	AD, SEATON, WORKINGTON	,
HERITAGE IMPACT ASSESSM	IENT	
December 2021		
PREPARED BY:		
Cat Peters	Principal Archaeologist	Ally
EDITED BY:		
Dave Jackson	Technical Director	
REVIEWED BY:		
Chloe Brownlee-Chapman	Regional Director	Blugman .

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SUMMARY

Wardell Armstrong LLP (WA) was commissioned by Story Homes Ltd to prepare a Heritage Impact Assessment (HIA) applicable to land west of Seaton Road, Seaton, Workington (centred on NGR NY 01027 29818). This HIA aims to show the impact of the scheme on the heritage significance of upstanding and below ground heritage assets within the study area.

The site comprises a parcel of agricultural land to the south-west of Seaton and north-west of modern housing on the opposite side of Seaton Road. The site is located *c*.1.2km to the south-west of the centre of Seaton and *c*.1.8km north-east of the centre of Workington, in Cumbria. It comprises a large arable field with hedgerows forming the north-western, south-western and south-eastern boundaries. The site has been allocated for housing within the Local Plan.

This study has found that this area was important in the late prehistoric period, and that the Romans established a fort to the north-west. It is possible that activity associated with these periods may have extended within the site. From at least the early 19th century, and likely since the major re-organisation of the landscape associated with enclosure in the 18th century, the site was associated with Calva, the farmstead surviving to the south-west. From then on it has remained relatively unaltered since the early 19th century, although the presence of an old shaft to the west may suggest that post medieval exploratory extractive activity has occurred within the area. A contemporaneous geophysical survey, the results of which have been compiled into a separate report, revealed no such evidence, but has identified a possible former east-west aligned land division, possible former trackway and curvilinear anomaly, which, based on the results of similar investigations to the south-west, may have prehistoric origins. Any conclusions regarding likely requirements for further mitigation works in terms of sub-surface archaeological potential would depend on the requirements of the local planning authority archaeologist.

Historic mapping indicates that the site has remained largely unaltered since 1826. As such, surviving field boundaries, particularly the north-western boundary which survives as a mature hedgerow, may have early origins, and may be protected under Hedgerow Regulations 1997. If it is possible for the housing development to retain the existing hedgerows, only indirect impacts on cultural heritage are anticipated, based on current knowledge. These indirect impacts would affect the mid-20th century watch post to the southwest and the mature hedgerow forming the north-western boundary of the site, which includes a bank and sandstone gatepost. The other hedgerows seem more modern in appearance and have concrete gateposts.



ACKNOWLEDGEMENTS

Wardell Armstrong LLP (WA) thanks Story Homes Ltd for commissioning the project and for all assistance throughout the work.

WA also thank Mark Brennand, at Cumbria County Council, for advice regarding the scope of the work and for provision of the Historic Environment Record dataset.

This report has been written by Cat Peters with the figures produced by Helen Phillips. The research and site visit were undertaken by Cat Peters. Dave Jackson managed the project and edited the report, and Chloe Brownlee-Chapman provided final quality assurance.



1 INTRODUCTION

1.1 **Circumstances of Project**

1.1.1 Wardell Armstrong LLP (WA) was commissioned Story Homes Ltd to prepare a Heritage Impact Assessment (HIA) applicable to land to the west of Seaton Road, Seaton, Workington (centred on NGR NY 01027 29818).

1.2 The Purpose of the Heritage Impact Assessment

- 1.2.1 This Heritage Impact Assessment is designed to assess the impact of the scheme on the heritage significance of upstanding and below ground heritage assets within the study area.
- 1.2.2 The Heritage Impact Assessment seeks to address in detail the issues of impacts on heritage significance of upstanding and below ground heritage assets and to do this it both seeks to understand the significance of the assets before evaluating the impact of the development proposals upon them.

1.3 Planning Policy and Legislative Framework

- 1.3.1 National planning policies on the conservation of the historic environment are set out in the *National Planning Policy Framework* (NPPF), which was updated by the Ministry of Housing, Communities and Local Government in July 2021 (MHCLG 2021). This is supported by *Planning Practice Guidance* (PPG) which was published in March 2014.
- 1.3.2 The NPPF draws a distinction between designated heritage assets and other remains considered to be of lesser significance. With regard to designated heritage assets, *'great weight should be given to the asset's conservation'*. The more important the asset, the greater the weight should be; substantial harm to or loss of a Grade II Listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, Grade I and II* Listed Buildings and Grade I and II* Registered Parks and Gardens and World Heritage Sites, should be wholly exceptional (NPPF, para 194). Therefore, preservation in-situ is the preferred course in relation for such sites unless exceptional circumstances exist.
- 1.3.3 The NPPF states that 'the effect of an application on the significance of a nondesignated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset' (NPPF, para 203). The NPPF advises



that local planning authorities should 'require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact' (NPPF, para 205).

1.3.4 The NPPF advises that local planning authorities should look for opportunities for new development within the setting of heritage assets to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably (NPPF, para 206).

1.4 Local Planning Policies

- 1.4.1 Seaton is included within the area covered by Allerdale Borough Council. Allerdale's Local Plan was adopted in July 2014. This includes policies on the Built and Historic Environment, two of relevance to this study include:
- 1.4.2 'Policy S27: Heritage Assets the historic environment including all heritage assets and their settings will be conserved and enhanced in a manner appropriate to their intrinsic historic value and significance, their importance to local character, distinctiveness and sense of place, and to other social, cultural economic or environmental benefits/values. The Council will work with partners to seek the conservation and enhancement of all designated or non-designated heritage assets within the Plan Area. In determining applications that could affect the significance (including character, appearance, historic value, value to people and setting) of a heritage asset and/or archaeological asset, the following factors will be taken into account:
 - The level of significance of the heritage asset(s).
 - The impact of the proposal on the significance (including setting) of the heritage asset(s).
 - How the significance and/or setting of the asset could be better revealed.
 - *Opportunities for mitigating climate change without damaging significance.*
- 1.4.3 Only proposals which do not harm any positive qualities of the heritage asset(s) will be approved, unless there is a clear and convincing public benefit to the proposal that will outweigh the harm caused to the asset(s). If the public benefits of a proposal outweighs and justifies the loss of a heritage asset, it must be fully recorded in accordance with agreed criteria which will be proportionate to the value and significance of the heritage asset... Schemes which help ensure a sustainable future for



Allerdale's heritage assets, especially those identified at being at risk of loss or decay will be supported' (Allerdale Borough Council 2014, 119-120).

1.4.4 'Policy S28: Hadrian's Wall World Heritage Site - There is a presumption in favour of preserving the fabric, integrity and authenticity of archaeological sites that form part of Hadrian's Wall World Heritage Site. Development that would have a detrimental effect on archaeological remains and their setting will be refused. Proposed development in the Buffer Zone should be assessed for its impact on the Outstanding Universal Value of the World Heritage Site, and particularly on key views both into and out of it. Development that would have an adverse impact on Outstanding Universal Value will be refused. Proposed developments outside the boundaries of the Buffer Zone will be assessed for their effect on the Outstanding Universal Value. Any proposals that would have an adverse effect on this will be refused. New development within Hadrian's Wall World Heritage Site and its Buffer Zone, which enhances or better reveals its significance, will be supported. Significant development proposals affecting Hadrian's Wall World Heritage Site and its Buffer Zone will require a formal environmental impact assessment to ensure their impacts and implications for the longer term are evaluated in full' (Allerdale Borough Council 2014, 122).



2 METHODOLOGY

2.1 Introduction

- 2.1.1 The preparation of this Heritage Impact Assessment has been undertaken in accordance with guidance recommended by Historic England and is consistent with the relevant standards and procedures of the Chartered Institute for Archaeologists, as set out in *Standard and Guidance for Historic Environment Desk-Based Assessment* (CIFA 2020). Note is also taken of Historic England guidance on understanding place (2017) and on the setting of heritage assets (2015).
- 2.1.2 The data underlying this Heritage Impact Assessment derives from Cumbria's Historic Environment (HER) dataset, on website sources and on archive material available at the time of this study. For the HER dataset, ongoing home-working and lack of access to the physical holdings at offices has meant that this data relies solely on the digital database. Similarly, for accessing original archive material, ongoing COVID-19 related constraints restricted access to archives only allowing the pre-ordering of documents cited on online catalogues. The impact of the development on heritage assets within a 750m study area, centred on the site, was assessed using a series of standard tables (*confer* Appendix 1).

2.2 **Documentary Sources**

- 2.2.1 Primary and secondary sources were used to provide the background to the historical character of the study area. Much of the information in this Heritage Impact Assessment is derived from internet sources and from the Historic Environment Record dataset.
- 2.2.2 Historic England's guidance on historic area assessments, conservation areas and heritage asset setting were used, with best practice planning guidance.

2.3 Site Visit

- 2.3.1 The site was visited on Wednesday 10th November 2021. The results of the survey are included within the main historic background chapter and summarised in the gazetteer (Appendix 2). The walkover survey aimed to:
 - test the survival of assets within the site identified by the research;
 - assess the site for upstanding remains of potential heritage interest;
 - identify any factors which may have affected the sub-surface survival of potential as-yet unknown heritage assets at risk from the Scheme.



2.3.2 The land was accessed from a public right of way and lane adjacent to the northeastern boundary of the site, which heads west from Seaton Road. The site comprised a single large arable field.

2.4 Impact Assessment Tables

2.4.1 The assessment of the impact of development proposals is undertaken using a series of heritage impact tables (Appendix 1). These tables use standard assessment methods as used by Government agencies, as for example those used in the Highway Agency's *Design Manual for Roads and Bridges LA104 (rev 1),* August 2020. These tables first establish the value/sensitivity of the heritage asset against set criteria, secondly, they estimate the magnitude of impact and, taking the results of these two together, allow a calculation of impact on overall heritage significance. These results are summarised in Appendix 2, Table 2.

2.5 Heritage Impact Assessment

- 2.5.1 For the purposes of this report, the terms *'site'* is used to refer to the area to be affected by the development, within the redline boundary (Figure 2) and the term *'study area'* is used for a wider 750m study area, centred on the site (Figure 3).
- 2.5.2 Several sources of information were consulted, in accordance with professional guidelines (CIfA 2020). A search of online resources was undertaken in order to identify any additional designated sites such as scheduled monuments, listed buildings and conservation areas in the study area. This was done in order to help assess the possible impact of a development on archaeologically sensitive areas.
- 2.5.3 **National Heritage List, England**: the online database of all designated assets (scheduled monuments, listed buildings, registered parks and gardens, battlefields etc.), maintained by Historic England (NHLE 2021), was searched for the 750m study area, and the results detailed in Appendix 2 and illustrated in Figure 3.
- 2.5.4 *Cumbria Archive Centre, Whitehaven (CACW):* an initial remote search was undertaken of the catalogues held by various archives. Ongoing COVID-19 measures meant that at the time of producing this report, public libraries and archives were subject to restrictions. Cumbria Archive Centres are open to the public but restrictions remain in place limiting the number of people who can visit and allowing only documents which have been pre-ordered to be viewed. This allowed for a limited research of primary sources, whereby online catalogues were checked, and details from written documents noted. Two estate plans were ordered, the earliest



unfortunately covering the Calva Estate in the Parish of Dean, to the south-east of Workington (DCU/Estate Plans/91). The second showed the site in 1826 and has been used in the baseline of this report (DCU/Estate Plans/17).

- 2.5.5 *Wardell Armstrong LLP:* various publications and unpublished reports on excavations and other work in the region are held within the Wardell Armstrong library and these were examined and are referenced as appropriate.
- 2.5.6 **Websites:** various websites were checked for information relevant to the site's assessment, including Google Earth[™], LiDAR Finder, and the British Geological Survey. These are listed, as appropriate, in the bibliography.

2.6 **Reporting**

- 2.6.1 A digital copy of the report will be sent to the Historic Environment Record at Kendal, where access will be made available on request.
- 2.6.2 Wardell Armstrong support the Online Access to the Index of archaeological investigations (OASIS) project. This project aims to provide an online index and access to the extensive and expanding body of grey literature created as a result of developer-funded archaeological work. As a result, details of the results of this study will be made available by Wardell Armstrong, as a part of this national scheme, under the code: wardella2-502746.

2.7 Glossary

- 2.7.1 The following standard terms are used throughout the report:
 - Designation the process that acknowledges the significance of a heritage asset and thus advances its level of consideration/protection within the planning process. Designated assets can either be statutory, like listed buildings, or nonstatutory such as registered parks and gardens or conservation areas.
 - Heritage Asset a building, monument, site, place, area or defined landscape positively identified as having a degree of heritage significance that merits consideration in planning decisions.
 - Mitigation action taken to reduce potential adverse impacts on the heritage significance of a place.
 - Setting the surroundings in which a heritage asset is experienced. The extent is not fixed and will vary according to the historic character of the asset and the evolution of its surroundings.



• Significance – the value of a heritage asset to present and future generations attributable of its heritage interest. That interest may be archaeological, architectural, artistic or historic (including historical associations).



3 DESCRIPTION

3.1 Location

- 3.1.1 The site is located on land to the west of Seaton Road, Seaton, Workington, Cumbria, centred on NGR NY 01027 29818 (Figure 1).
- 3.1.2 The site is located *c*.1.2km to the south-west of the centre of Seaton and *c*.1.8km north-east of the centre of Workington. It comprises a parcel of agricultural land to the west of Seaton Road, south-west of Seaton, on the opposite side of the road to modern housing developments (Figure 2).

3.2 Geology

- 3.2.1 The bedrock geology of the western part of the site is mapped as mudstone, siltstone and sandstone of the Pennine Middle Coal Measures Formation, a sedimentary bedrock formed approximately 310-318 million years ago in the Carboniferous Period (BGS 2021).
- 3.2.2 Superficial deposits are mapped Diamicton Devensian Till, formed up to 2 million years ago on the Quaternary Period (BGS 2021).

3.3 Historic Landscape Character

3.3.1 Cumbria's Historic Landscape Characterisation classifies the site as within an area of planned enclosure, with ancient enclosure to the north (Cumbria County Council 2009, 106). It lies within a broader area identified as West Cumberland Plain, the legacy being 'a largely modern landscape with many 20th and 21st century industrial forms including windfarms, moderate survival of 19th century industrial features and weak legibility of landscape elements of medieval origin' (ibid, 105).

3.4 Archaeological and Historical Background

- 3.4.1 This historical and archaeological background is compiled predominantly from primary and secondary sources consulted in November 2021 during continued COVID-19 pandemic related restrictions in England when restrictions remained in place at local libraries and archives. It is intended only as a summary of historical developments around the site. The locations of known heritage assets within the study area are represented in Figure 3 and summarised in Appendix 2.
- 3.4.2 **Prehistoric:** a henge site is known *c*.150m to the south-west of the site, truncated by a 19th century reservoir (Asset 15). Geophysical survey results indicate a ritual landscape comprising a late Neolithic double ditched henge monument, used also



during the Bronze Age, evidenced by two ring ditches and a cairn, with a series of associated ditches. Targeted test pitting across the site encountered nine struck flints of beach flint and a possible crude scraper.

- 3.4.3 **Roman:** evidence for activity in the Roman period within the study area comes from the known site of Burrow Walls Roman fort (Asset 1), 500m to the north-west of the site. As well as being a scheduled monument, it is also protected as part of the Frontiers of the Roman Empire World Heritage Site. A geophysical survey of the site revealed triple-ditched defences suggesting it may be a fortlet of pre-Hadrianic origin. No activity beyond the limits of the fort was recorded. The fort has been impacted by a railway line (Asset 12).
- 3.4.4 *Medieval:* Workington Hall was first established as a fortified tower in 1362 (Asset 4) and was the seat of the Curwen family. It was continually inhabited and extended until the 18th century, but it now a ruined structure. It included a mill, in existence on this estate by at least 1250 (Asset 5), powered by a millrace (Asset 6). A park and garden were formally laid out in the 1780s to accompany the Hall (Asset 3), previously a deer park. The whole complex lies at least 450m to the south-east of the site, on the south-east side of the River Derwent.
- 3.4.5 Seaton, to the north-east of the site, had its origins as two medieval villages, Low Seaton to the south, a linear settlement closer the River Derwent, and High Seaton to the north, also a linear settlement. To the west of High Seaton and north-west of Low Seaton a third settlement known as Winder Houses (Figure 5) is also known, though this may be later. Associated field patterns typical of medieval stripfields are shown on early 19th century maps (Figures 4 and 5), elements of which spread westwards as far as immediately to the north of the site. The boundaries of these can be seen on modern aerial imagery (not depicted) and associated ridge and furrow have been noted from historic aerial photographs (Asset 16).
- 3.4.6 **Post-medieval:** the River Derwent was utilised by a smelting and foundry site, established on its north bank in 1762, known as Bearpot Works (Asset 7), annotated 'Iron Forge' on Hodskinson and Donald's County map of 1783 (Plate 1). A manor plan of 1826 (Figure 4) annotates it as 'Seaton Iron Works' and the 1841 tithe map (Figure 5) as 'Beer-pot Ironworks'. It became one of the most important works in northern England, with its own tramway to link it to Workington's quays and its own community with workers' housing and a manager's house on the complex. The tithe map also shows a reservoir and canal, linking to Seaton Mill further east (Figure 5). It later



became a tinplate works, before closing in 1899. Cropmarks to the south-east of the millrace/canal cover a large area but are difficult to characterise (Asset 14). Early 19th century mapping (Figures 4 and 5) suggests this area comprised fields, although its possible pre-1826 ironwork features extended into this area.

- 3.4.7 The Workington area became a hub of industry in the post medieval period. This included smaller works, such as the odd coal shaft (Asset 19) and the soapery (Asset 17) to the south-west, shown on early 19th century mapping and on First and Second Editions of the Ordnance Survey series, but perhaps closed by 1925, and much larger works, such as the Haematite Steelworks to the north-west. The extent of these works explains the complex of railway lines established to transport the materials (Assets 8, 9, 10, 11 and 12). A new bridge was also established to cross the River Derwent in 1841 (Asset 2).
- 3.4.8 Despite these major alterations in the vicinity and the associated population boom, the site itself appears to have remained unaltered. County maps of 1783 and 1823 suggest the area to the north of the 'Iron Forge' and west of Seaton remained rural (Plates 1 and 2). In 1826 the site formed part of the Earl of Lonsdale's landholding, then the largest landholder in Seaton, and was associated with Calva (Asset 18), a farmstead likely dating to the redistribution of land following enclosure (Figure 4). It is annotated on Greenwood's plan of 1823 (Plate 2), and a building is marked at its approximate location on Hodskinson and Donald's earlier County map of 1783 (Plate 1). In 1841 the site remained the same, still owned by the Earl of Lonsdale, and known as 'Great Calva Slice' (Figure 5). The same triangular-shaped field is shown on the First Edition Ordnance Survey map of 1866 (Figure 6), Second Edition Ordnance Survey map of 1900 (Figure 7) and on the Third Edition Ordnance Survey map of 1925 (Figure 8). The historic Ordnance Survey maps show a benchmark on the south-eastern boundary of the site, adjacent to Seaton Road. This would indicate a drystone wall, since removed.
- 3.4.9 Small-scale changes within the 750m study area are shown on 19th century mapping, including an old shaft to the west of the site (Asset 19) and a former rifle range to the north-west of the site (Asset 20), in existence by 1866 (Figure 6). There is no other evidence for coal extraction in the vicinity, although the possibility that this may have also affected the site cannot be ruled out. The population boom did begin to alter the area by the turn of the 20th century, with the appearance of a reservoir to the south-west of the site and a pair of semi-detached villas to the north-east by 1900 (Figure 7).



- 3.4.10 *Modern:* additional houses were added to the north-east by 1925 (Figure 8) and a Royal Observer Corps watch post bunker was erected to the south of the site during the Second World War (Asset 13). The site visit confirmed that this still survives in the field to the south-west of the site, and although the entrance hatch is no longer in place, a ladder receding into the bunker is still in position (Plate 3). In the mid-20th century, a housing estate was established to the south-east of the site, on the opposite side of Seaton Road, and by the early 1970s a new reservoir had been established to the north, resulting in the creation of an access lane running adjacent to the north-eastern boundary of the site, and truncating the triangular field, otherwise unaltered since 1826.
- 3.4.11 **November 2021:** a geophysical survey of the site, undertaken to inform on sub-surface potential to accompany this report, the full results written into a separate report (Wardell Armstrong 2021), has identified a possible former east-west aligned land division, possible former trackway and curvilinear anomaly, which, based on the results of similar investigations to the south-west, may have prehistoric origins. The results also indicate minimal post medieval or modern disturbance suggesting good levels of sub-surface survival.
- 3.4.12 The site visit undertaken as part of this HIA, also in November 2021, has confirmed that the south-eastern boundary of the site adjacent to Seaton Road is formed of a hedgerow (Plate 4), not a drystone wall as suggested by historic Ordnance Survey mapping, which might suggest a 20th century removal, perhaps to widen the road and allow for a bus shelter at the boundary. The lane adjacent to the north-eastern boundary is also a 20th century insertion, truncating the triangular field previously occupying this plot, with only a marginal strip of vegetation as a boundary to the site (Plate 5). An incomplete gnarled hedgerow with lots of gaps forms the south-western boundary, with the gate posts there being concrete and triangular topped (Plates 6 and 7). Located beside the south-eastern gate in this boundary, close to the watch post bunker (Asset 13), was a fragment of stone with some lettering apparent (Plate 8). A more mature banked hedgerow (Plates 9 and 10) with single sandstone gate post (Plate 11) forms the north-western boundary of the site (Asset 21). The site itself drops down from the Seaton Road level before sloping gradually north-westwards (Plate 12). To the north-east, two houses are under construction, and to the south-east, on the opposite side of Seaton Road, is a modern housing development.
- 3.4.13 The views from the site are long and far reaching, wind turbines in the sea to the northwest, and the western fells to the east. Despite this, there is no intervisibility from the



site to known designated assets in the vicinity (Assets 1-4), and of the non-designated assets, only the 20th century watch post bunker (Asset 13) is visible on the higher ground to the south-west, although the south-western boundary hedgerow limits this visibility.



4 DISCUSSION

4.1 **Summary of Baseline**

- 4.1.1 The baseline dataset, based on research and a site visit, has shown that there is potential for late prehistoric and/or medieval activity within the site based on nearby known heritage assets. This has been confirmed by the results of an associated geophysical survey (Wardell Armstrong 2021). There is no known evidence for modern activity within the site which may have affected any such subsurface remains.
- 4.1.2 The surviving hedgerow noted as being banked and mature forming the north-western boundary of the site respects a boundary shown on 1826 mapping, and therefore may be protected under Hedgerow Regulations 1997 (DEFRA 1997).
- 4.1.3 The built-up nature of the area around the site, hedgerow boundaries around the arable field and the higher land to the south-west, mean that a development within the site would have minimal impacts on the setting of heritage assets in the wider study area, although setting impacts on the surrounding field boundaries (Asset 21) and the nearby watch post (Asset 13) are anticipated.

4.2 **Development Proposals**

- 4.2.1 The site has been included as an 'Identified Site' within Part 2 of Allerdale's Local Plan, 'Site Allocations'. This document was designed to ensure that 'sufficient land is available in appropriate locations to deliver the development requirements and policies set out in the Local Plan (Part 1)' (Allerdale Borough Council 2020, 1). Policy SA1 on 'Identified Sites' states that 'sites allocated on the Policies Map for development and redevelopment shall be protected and delivered for their specified use in accordance with site specific policies and other relevant polices in the Local Plan' (ibid, 10). The site comprises 'Identified Sites Ist... will be permitted provided the scheme is in accordance with the relevant site specific policy requirements (SA8 to SA29) and other relevant policies set out in the Local Plan' (ibid, 25). Several sitespecific requirements have been set out within the Site Allocations document for the Seaton Road Site, two of which are relevant to this study:
 - A Hedgerow Assessment will be required. The hedgerow running along the eastern boundary of the site adjacent to Seaton Road shall be retained and incorporated in the scheme, where compatible with highway visibility splays and footways. Other hedgerows bounding the site should be retained outwith



boundary fencing defining domestic gardens. Suitable compensation planting should be provided where hedgerows cannot be retained.

- There is the potential for currently unknown archaeological remains to survive buried on the site and so it is advised that any future application should be accompanied by an archaeological desk-based assessment and the results of a geophysical survey (Allerdale Borough Council 2020, 35-36).
- 4.2.2 Detailed plans of the residential development of the site have not yet been drafted.



4.3 Heritage Statement

- 4.3.1 No Impacts: a total of 21 heritage assets have been identified within the study area with the potential to be affected by a development within the site. Of these, the majority (19) either no longer exist or are not intervisible with the site (Appendix 2, Table 2). For these 19, a magnitude of impact of no change is anticipated, which would result in an impact of neutral significance, and therefore is unlikely to require further consideration (applicable to Assets 1-12 and 14-20).
- 4.3.2 **Adverse Impacts**: for the remaining two heritage assets, the mid 20th century watch post to the south-west (Asset 13) and the north-western boundary of the site, a banked mature hedgerow with sandstone gatepost (Asset 21), indirect impacts on setting are anticipated. Direct impacts are not expected because the watch post lies outside the site boundary, and one of the site-specific requirements is that 'hedgerows bounding the site should be retained outwith boundary fencing defining domestic gardens' (Allerdale Borough Council 2020, 35-36).
- 4.3.3 Sub-surface archaeological potential revealed by the research has been confirmed by the results of an associated geophysical survey of the site which has identified a possible former east-west aligned land division, possible former trackway and curvilinear anomaly, which, based on the results of similar investigations to the southwest, may have prehistoric origins (Wardell Armstrong 2021). The results also indicate minimal post medieval or modern disturbance suggesting good levels of sub-surface survival. Direct, permanent, impacts to these features will be likely as a result of the development.

4.4 Conclusions

- 4.4.1 If it is possible for the housing development to retain the existing hedgerows, only indirect impacts on cultural heritage are anticipated, based on current knowledge. However, there is the potential for as-yet unknown archaeological remains, particularly of the prehistoric and/or Roman periods, to survive within the site, based on known sites in close proximity, confirmed by the results of a geophysical survey of the site. Groundworks required for access tracks, services and foundations, would have the potential to directly impact any surviving sub-surface remains.
- 4.4.2 The details of any further mitigation are dependent on the requirements of the local planning authority archaeologist.



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APPENDIX 1: HERITAGE IMPACT ASSESSMENT TABLES

In ascribing levels of **importance** to heritage assets, the Design Manual for Roads and Bridges, LA 104 Environmental Assessment and Monitoring (Highways England 2019) has been used (Table 1).

Value (sensitivity)	Typical description
Very High	Very high importance and rarity, international scale and very limited potential for substitution
High	High importance and rarity, national scale, and limited potential for substitution
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale
Negligible	Very low importance and rarity, local scale

Design Manual for Roads and Bridges, LA 104 Environmental Assessment and Monitoring (Highways England 2019)

The **magnitude of impact** is measured from the condition that would prevail in a 'do nothing' scenario and it is assessed without regard to the importance of the receptor (Highways England, 2019). The worst magnitude of impact would be Loss of resource and/or quality and integrity of resource and severe damage to key characteristics, features, or elements. In ascribing the magnitude of impact, guidance presented in the Design Manual for Roads and Bridges, LA 104 Environmental Assessment and Monitoring (Highways England 2019) has been used (Table 2).

Table 2: Establishing the magnitude of impact

Magnitude of impact (change)		Typical description
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe
		damage to key characteristics, features, or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive
		restoration; major improvement of attribute quality.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial
		loss of/damage to key characteristics, features, or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features, or elements;
		improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality, or vulnerability;
		minor loss of, or alteration to, one (maybe more) key characteristics,
		features, or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key
		characteristics, features, or elements; some beneficial impact on
		attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more
		characteristics, features, or elements.
	Beneficial	Very minor benefit to or positive addition of one or more
		characteristics, features, or elements.
No change		No loss or alteration of characteristics, features, or elements; no
		observable impact in either direction.

Design Manual for Roads and Bridges, LA 104 Environmental Assessment and Monitoring (Highways England, 2019)



The **significance of impact** is devised by cross referencing the importance of the receptor with the magnitude of the impact, see Table 3. In some cases, the significance of impact is shown as being one of two alternatives. In these cases, a single description should be decided upon with reasoned judgement for that level of significance chosen.

	Very High	Neutral	Slight	Moderate/large	Large or very large	Very large
tance	High Neutral		Slight	Slight or moderate	Moderate or large	Large or very large
Value/Importance	Medium	Neutral	Neutral/slight	Slight	Moderate	Moderate or large
Value	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight
		No change	Negligible	Minor Magnitude of impa	Moderate ct	Major

Table 3: Establishing the significance of impact

Design Manual for Roads and Bridges, LA 104 Environmental Assessment and Monitoring (Highways England, 2019)

Significance Category	Typical Description
Very large	Effects at this level are material in the decision-making process.
Large	Effects at this level are likely to be material in the decision-making process.
Moderate	Effects at this level can be considered to be material decision-making factors.
Slight	Effects at this level are not material in the decision-making process.
Neutral	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Table 4: Significance categories

Design Manual for Roads and Bridges, LA 104 Environmental Assessment and Monitoring (Highways England, 2019)



APPENDIX 2: GAZETTEER OF HERITAGE ASSETS

Table 1: the table below summarises known heritage assets within a 750m study area and includes assets from Cumbria's Historic Environment Record (HER) and the National Heritage List England (NHLE) Historic England web resource. The locations of all known heritage assets are shown in Figure 3. For those previously unknown heritage assets, a level of 'low' significance has been attributed; it is possible, with enhanced understanding of these assets, that they may be considered of greater significance.

Asset	Reference	Site Name	Period	Description	Grid Reference	Value
No.						
1	NHLE 1000098; NHLE	Frontiers of the	Roman;	The World Heritage Site Frontiers of the Roman Empire (Hadrian's	300360,530040	Very
	1007161; HER 841	Roman Empire;	Medieval	Wall) includes the Scheduled area of Burrows Roman fort but no		High
		Burrow Walls		buffer zone. The scheduled area also includes a hall of medieval date.		
		Roman Fort		A geophysical survey in 2016 show the triple ditched defences,		
				perhaps even indicative of a pre-Hadrianic fort. No activity beyond		
				the fort or clear evidence of gateways in the defences were revealed		
2	NHLE 1327212	Workington	Post	Grade II listed roadbridge, dated 1841	300777,529075	Medium
		Bridge	Medieval			
3	NHLE 1001262	Workington Hall	Post	Grade II listed park and garden laid out in the 1780s to accompany		Medium
		Park	Medieval	Workington Hall. Formerly a deer park. The hall (originally mid 14^{th}		
				century) stands to the west (Asset 4)		
4	NHLE 1144479; NHLE	Workington Hall	Medieval;	Grade I listed fortified tower house with additions of 14 th , 15 th , 16 th	300771,528794	High
	1020458; HER 3690		Post	and 18 th century, now in ruins. Scheduling protects the buried		
			Medieval	remains of Workington Hall tier house and later medieval fortified		
				house		



Asset	Reference	Site Name	Period	Description	Grid Reference	Value
No.						
5	HER 11498	Workington Hall	Medieval;	A water powered corn mill existed on Curwen family lands in 1125	301200,529060	Low
		Mill	Post	although its location is unclear. Workington Hall mill was likely		
			Medieval	established by 1250 and is included in an inventory of 1329. It was		
				converted into a sawmill in 1907. It was powered by a millrace (Asset		
				6)		
6	HER 11501	Workington Hall	Medieval;	The millrace is labelled on a plan of 1777, and the south gut mill race	299800,529050	Low
		mill race	Post	on a plan of 1569 and almost certainly has medieval origins. A section		
			Medieval	of the original course between Workington Bridge and Workington		
				Hall Mill is now within the registered park (Asset 3)		
7	HER 4691	Bearpot	Post	A smelting and foundry site established at Bearpot in 1762, later	301200,529400	Low
		(Seaton) Works	Medieval	becoming one of the most important works in northern England. A		
				tramway connected the works to Workington quays. It formed a		
				small community, with workers' housing and a manager's house. It		
				later became a tinplate mill. The works finally closed in 1899		
8	HER 11531	L&NWR Railway	Post	The Cockermouth, Keswick and Penrith Railway was opened in 1864	313950,529900	Low
			Medieval	linking the terminus of the (L&NWR) Cockermouth to Workington		
				line, which had opened in 1847, to the main railway network at		
				Penrith. It was primarily a goods route, eventually closing to freight		
				in 1865, and to passengers in 1966. Elements form a PROW with		
				areas partially filled		
9	HER 12391	Cleator and	Post	The Cleator to Workington junction Railway ran from Cleator Moor	299770,527560	Low
		Workington	Medieval	to Siddick Junction via Moresby Parks, Distington, Workington		
		Junction Railway		Central. It opened in 1878. A northern junction ran from Workington		
				Central to Limefoot via Seaton, Great Broughton, which closed in		
				1964		



Asset	Reference	Site Name	Period	Description	Grid Reference	Value
No.						
10	HER 40507	Cleator And	Post	Section of railway linking the Cockermouth, Keswick and Penrith	300520,539060	Low
		Workington	Medieval	Railway built in 1864 (Asset 8) and the Cleator and Workington		
		Junction		Junction Railway (Asset 9) VIA Workington Bridge Station (Asset 11).		
		Railway-		Now dismantled and the area reverted to agricultural use		
		Workington				
		Bridge Branch				
11	HER 40506	Workington	Post	Railway station on the Cleator and Workington Junction Railway,	300730,529130	Low
		Bridge Station	Medieval	apparently rebuilt in 1881		
12	HER 40773	Cleator and	Post	A stretch of the Cleator and Workington Junction Railway to the	300310,529870	Low
		Workington	Medieval	north of Workington, joining the Maryport and Carlisle Railway,		
		Junction		Derwent Branch (HER 11773), cutting through Burrow Walls Roman		
		Railway:		Fort (Asset 1). Built between 1867 and 1900 and since dismantled		
		Northern				
		Extension				
13	HER 12774	Hawk Hill ROC	Modern	A Royal Observer Corps Bunker, thought to have been destroyed	301044,529606	Low
		Watch Post		seemingly still intact with entrance visible in 2016. November 2021		
				site visit for this project confirmed its survival. The hatch door no		
				longer survives but the ladder leading into the bunker is still in place		
14	HER 17693	Cropmarks	Unknown	A large number of cropmarks on aerial photographs on land to the	301600,529350	Low
				east of the Bearpot Works (Asset 7). They include the former route		
				of the railway (Asset 8) and perhaps traces of ridge and furrow or		
				subsoiling. It is difficult to distinguish clear archaeological features		



Asset	Reference	Site Name	Period	Description	Grid Reference	Value
No.						
15	HER 44270	Calva Hill Henge	Prehistoric	Geophysical survey at Calva Hill revealed strong evidence for a	300810,529418	Low
				prehistoric ritual landscape, including a late Neolithic double ditched		
				henge monument and two Bronze Age ring ditches and a cairn. A		
				series of associated ditches are also present. Half of the enclosure		
				has been destroyed by the 19 th century reservoir. Test pits		
				encountered nine struck flakes of beach flint and a possible crude		
				scraper		
16	NMP 1495771	Ridge and	Post	Post medieval ridge and furrow is visible as earthworks and	301049,531367	Low
		Furrow	Medieval	cropmarks on air photographs in the parish of Seaton, centred at NY		
				0080 3163. Nearly all appear to be no longer extant or has been built		
				over on the latest 1976 and 1986 Ordnance Survey vertical		
				photography and 2002 NMR oblique photography		
17	1826 Manor Map	Site of soapery	Post	Soapery shown on 1826 Manor map and historic OS mapping, though	300772,528999	Low
			Medieval	gone by mid 20 th century		
18	1826 Manor Map	Calva	Post	A building also shown at this approximate location on Hodskinson	300795,529205	Low
			Medieval	and Donald's 1783 County map and annotated on Greenwood's 1823		
				County map. Still marked on modern OS mapping		
19	First Ed OS map	Old Shaft	Post	Old Shaft shown in field to the west of the site on First Ed OS	300616,529789	Low
			Medieval	mapping, but on no other maps		
20	First Ed OS map	Former Rifle	Post	Rifle range shown on First Ed OS mapping, truncated by railways by	299982,529760 -	Low
		Range	Medieval	1900, and relocated further to the north. Not shown at all after 1900	300286,530220	
21	1826 Manor Map,	Mature banked	Post	Surviving banked mature hedgerow forming north-western	300981,529917	Medium
	Site Visit	hedgerow	Medieval	boundary of site, respecting boundary shown on 1826 mapping.		
				Possible kest bank and a single stone gatepost allowing access to		
				adjacent field		



Table 2: the table below is a summary of the heritage assets listed above including the significance of each asset, the assessed magnitude of impact of the Scheme based on available knowledge and assumptions ahead of detailed design proposals being confirmed and concluding in the overall magnitude of impact of the Scheme on the heritage significance of each asset, using the three tables in Appendix 1.

Asset	Site Name	Significance	Magnitude of Impact	Significance of
No.				Impact
1	Frontiers of the Roman Empire; Burrow Walls Roman Fort	Very High	No observable impact- no change	Neutral
2	Workington Bridge	Medium	No observable impact- no change	Neutral
3	Workington Hall Park	Medium	No observable impact- no change	Neutral
4	Workington Hall	High	No observable impact- no change	Neutral
5	Workington Hall Mill	Low	No observable impact- no change	Neutral
6	Workington Hall mill race	Low	No observable impact- no change	Neutral
7	Bearpot (Seaton) Works	Low	No observable impact- no change	Neutral
8	L&NWR Railway	Low	No observable impact- no change	Neutral
9	Cleator and Workington Junction Railway	Low	No observable impact- no change	Neutral
10	Cleator And Workington Junction Railway- Workington Bridge	Low	No observable impact- no change	Neutral
	Branch			
11	Workington Bridge Station	Low	No observable impact- no change	Neutral
12	Cleator and Workington Junction Railway: Northern Extension	Low	No observable impact- no change	Neutral
13	Hawk Hill ROC Watch Post	Low	Some measurable change to setting – minor adverse	Neutral or Slight
14	Cropmarks	Low	No observable impact- no change	Neutral
15	Calva Hill Henge	Low	No observable impact- no change	Neutral
16	Ridge and Furrow	Low	No observable impact- no change	Neutral
17	Site of soapery	Low	No observable impact- no change	Neutral
18	Calva	Low	No observable impact- no change	Neutral



Asset	Site Name	Significance	Magnitude of Impact	Significance of
No.				Impact
19	Old Shaft	Low	No observable impact- no change	Neutral
20	Former Rifle Range	Low	No observable impact- no change	Neutral
21	Mature banked hedgerow	Medium	Some measurable change to setting – minor adverse	Slight



APPENDIX 3: PLATES



Plate 1: Extract from Hodskinson and Donald's Plan of 1783





Plate 2: Extract from Greenwood's Plan of 1823





Plate 3: Asset 13 to south of site, facing north-west



Plate 4: South-eastern boundary of site, facing south-west





Plate 5: North-eastern boundary of site, facing north-west



Plate 6: South-western boundary of site, facing south-east





Plate 7: Example of one of three gateposts within south-western boundary of site



Plate 8: Stone with writing adjacent to south-western boundary of site





Plate 9: North-western boundary of site, facing south-west



Plate 10: Example of banked hedge forming north-western boundary of site





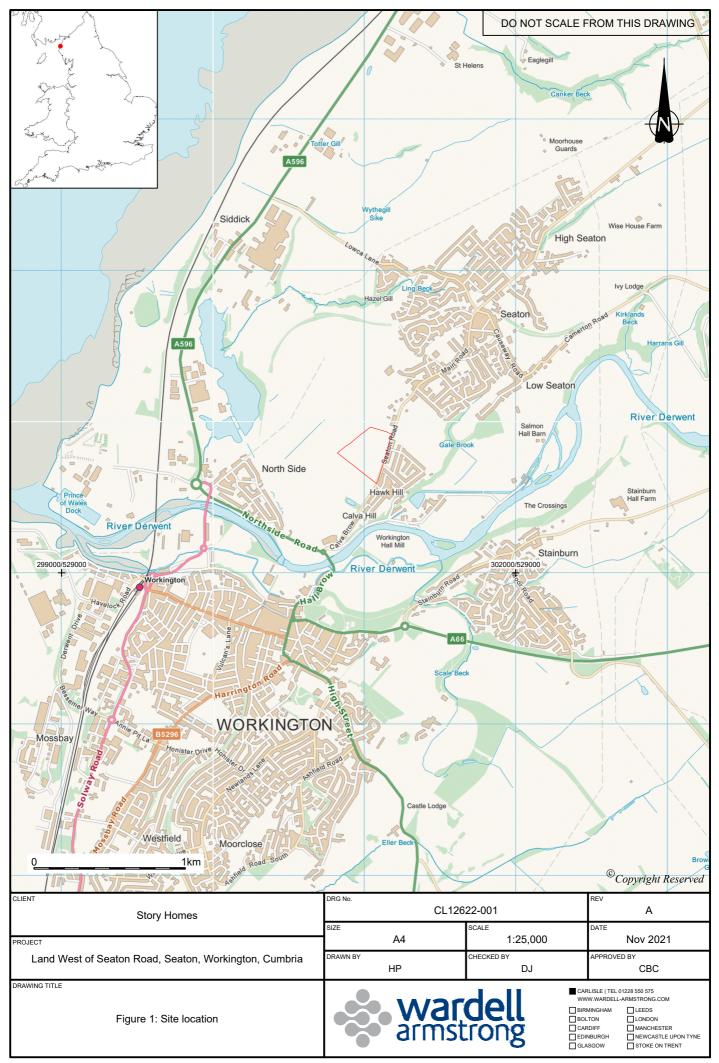
Plate 11: Sandstone gatepost within north-western boundary of site



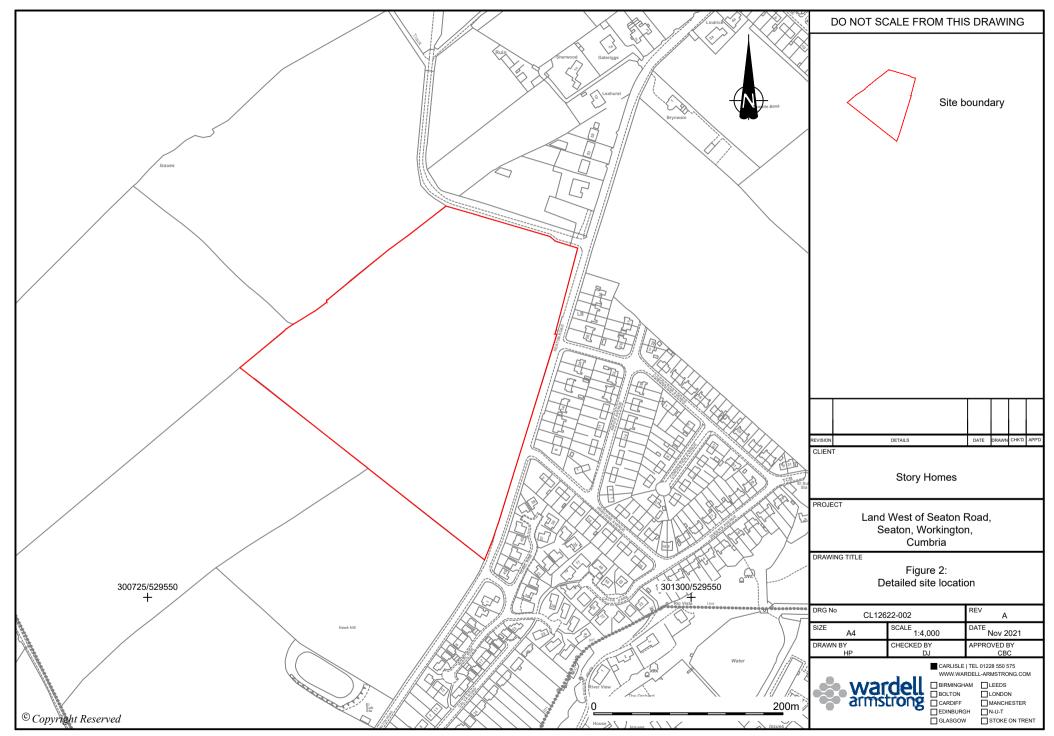
Plate 12: General view of sloping nature of site, facing north-west from south-western boundary

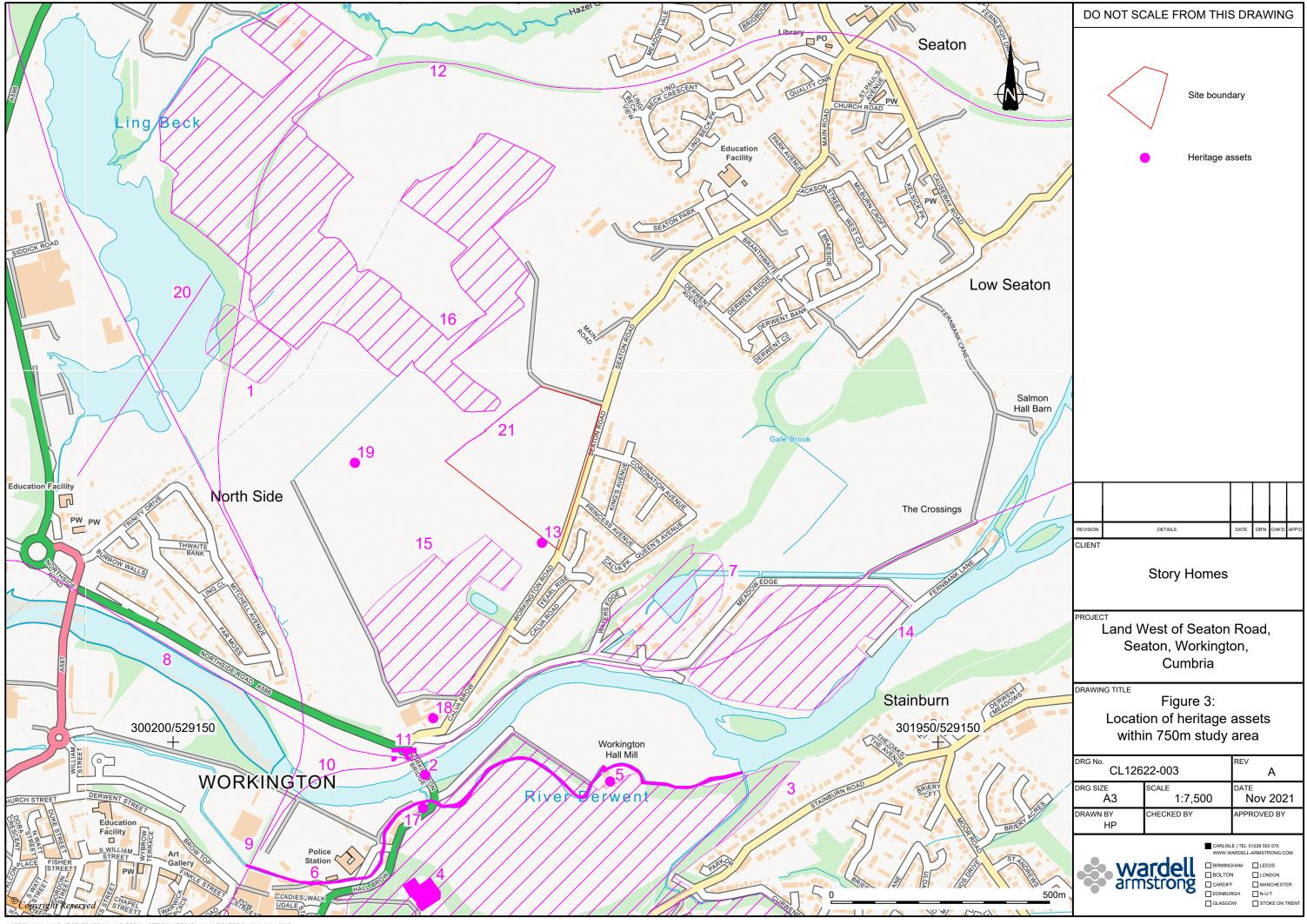


APPENDIX 4: FIGURES

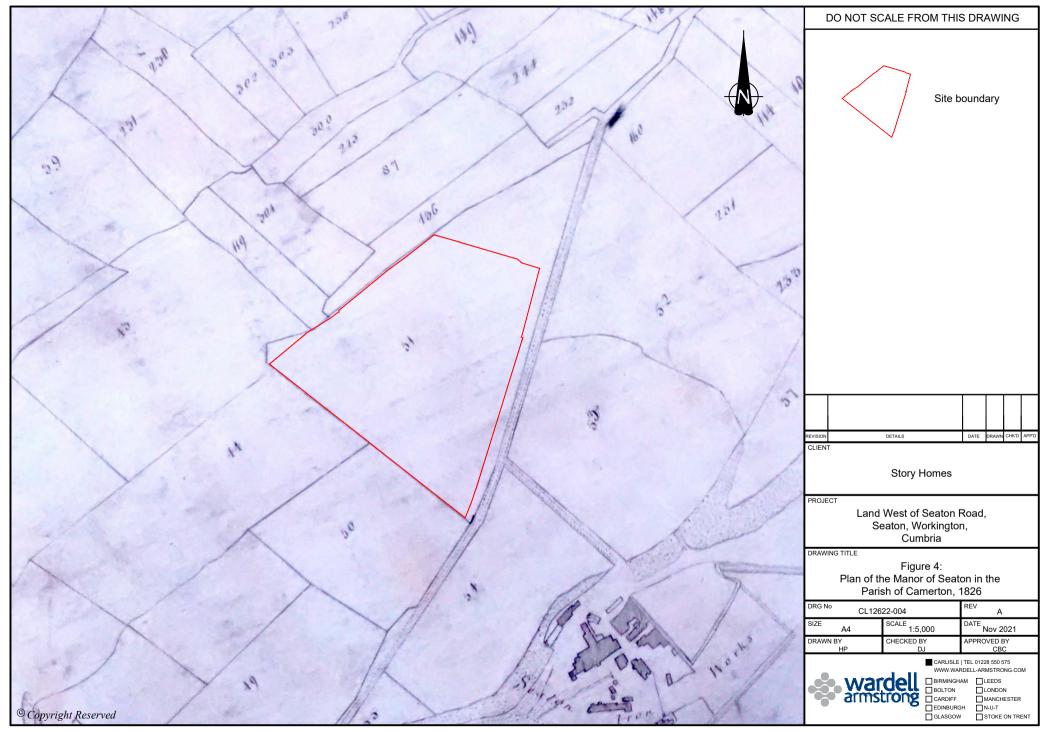


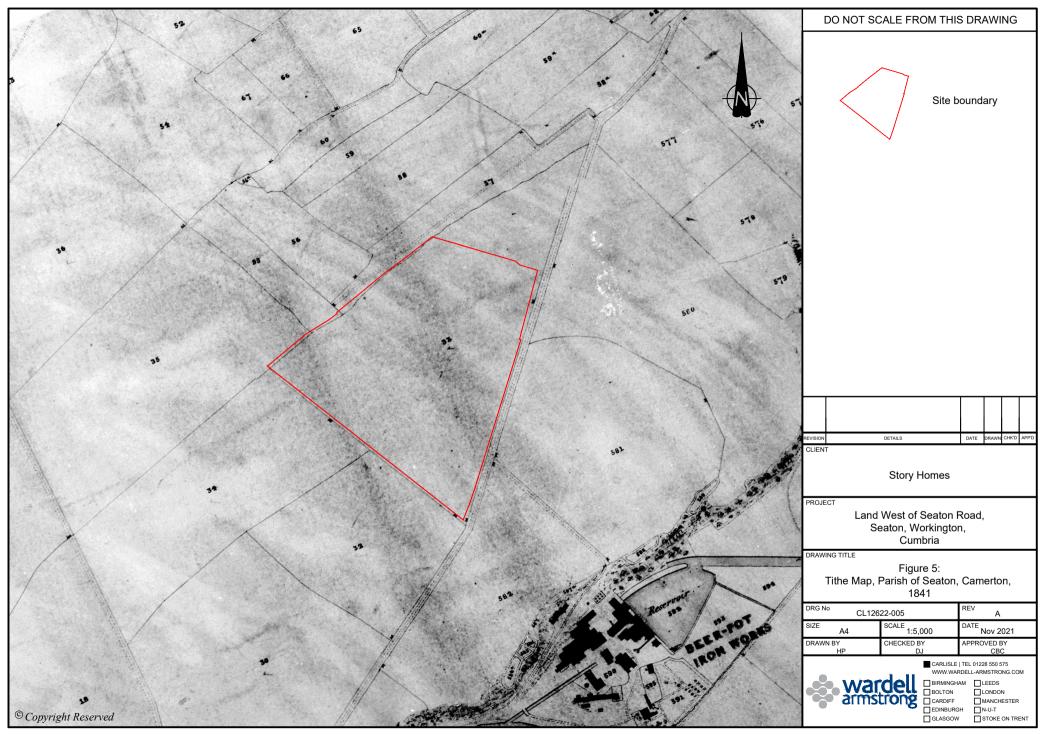
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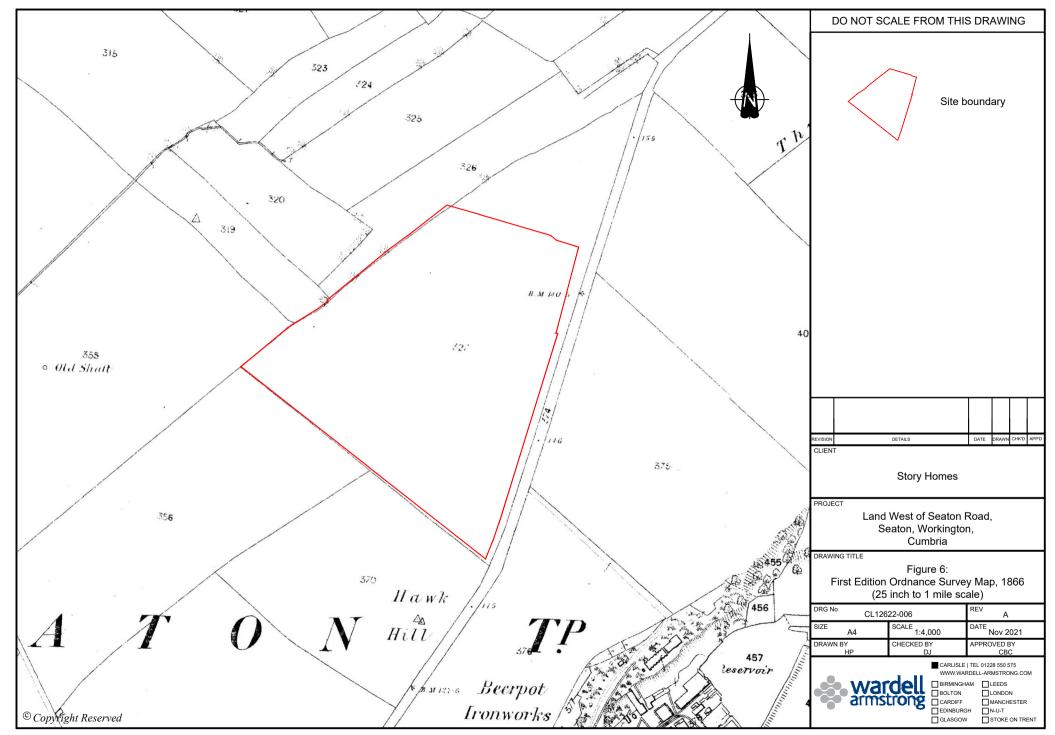




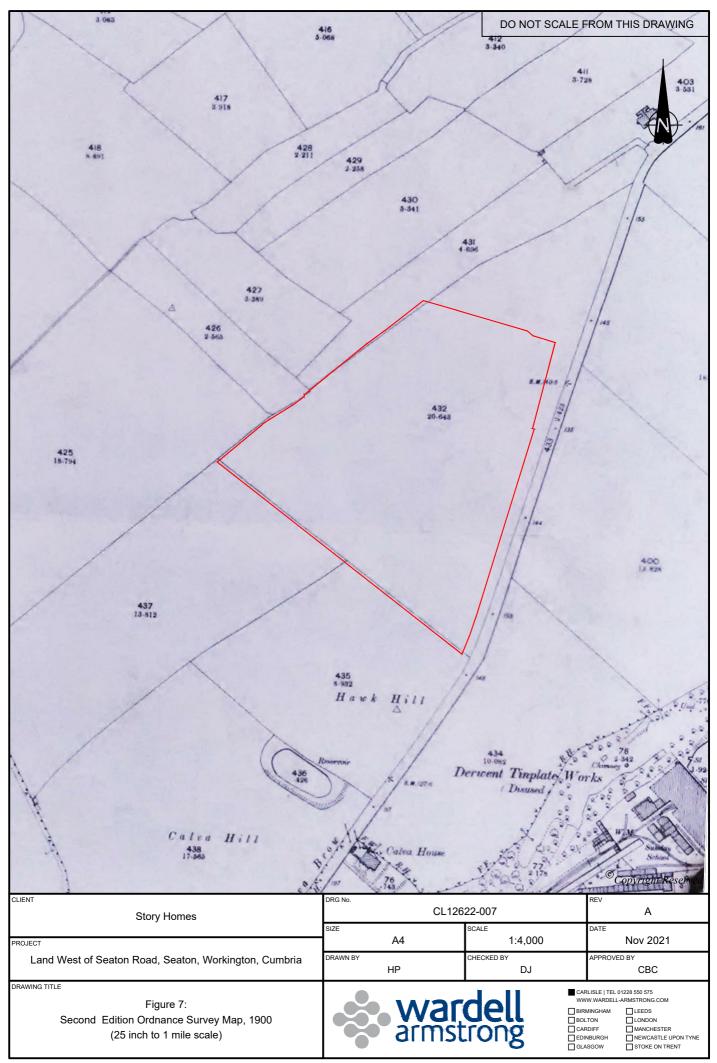
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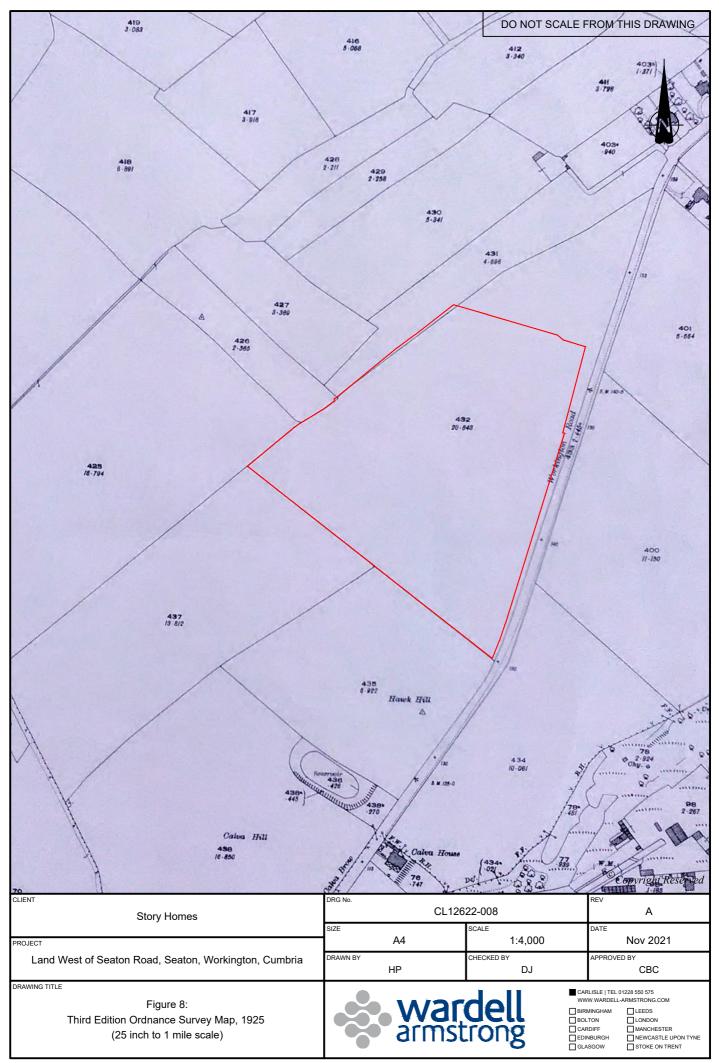




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wardell-armstrong.com

STOKE-ON-TRENT Sir Henry Doulton House Forge Lane Etruria Stoke-on-Trent ST1 5BD Tel: +44 (0)1782 276 700

BIRMINGHAM Two Devon Way Longbridge Technology Park Longbridge Birmingham B31 2TS Tel: +44 (0)121 580 0909

BOLTON 41-50 Futura Park Aspinall Way Middlebrook Bolton BL6 6SU Tel: +44 (0)1204 227 227

BRISTOL Desklodge 2 Redcliffe Way Bristol BS1 6NL

BURY ST EDMUNDS 6 Brunel Business Court

6 Brunel Business Court Eastern Way Bury St Edmunds Suffolk IP32 7AJ Tel: +44 (0)1284 765 210 CARDIFF Tudor House 16 Cathedral Road Cardiff CF11 9LJ Tel: +44 (0)292 072 9191

CARLISLE Marconi Road Burgh Road Industrial Estate Carlisle Cumbria CA2 7NA Tel: +44 (0)1228 550 575

EDINBURGH Great Michael House 14 Links Place Edinburgh EH6 7EZ Tel: +44 (0)131 555 3311

GLASGOW 2 West Regent Street Glasgow G2 1RW Tel: +44 (0)141 433 7210

LEEDS 36 Park Row Leeds LS1 5JL Tel: +44 (0)113 831 5533 LONDON

Third Floor 46 Chancery Lane London WC2A 1JE Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE City Quadrant 11 Waterloo Square

Newcastle upon Tyne NE1 4DP Tel: +44 (0)191 232 0943

TRURO Baldhu House Wheal Jane Earth Science Park Baldhu Truro TR3 6EH Tel: +44 (0)187 256 0738

International offices:

ALMATY 29/6 Satpaev Avenue Hyatt Regency Hotel Office Tower Almaty Kazakhstan 050040 Tel: +7(727) 334 1310

MOSCOW 21/5 Kuznetskiy Most St. Moscow Russia Tel: +7(495) 626 07 67

