

HERITAGE

Story Homes Ltd

Lizard Lane, Whitburn
South Tyneside
Tyne and Wear

Heritage Assessment

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South Tyneside
Tyne and Wear

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1. INTRODUCTION

- 1.1 BWB Consulting Ltd (BWB) was instructed by Story Homes Ltd to undertake a Heritage Assessment on a site on land off Lizard Lane, Whitburn, South Tyneside, Tyne and Wear, ('the Site').
- 1.2 The purpose of the assessment is to assess the potential for archaeological remains to be present within the Site. It also considers any potential impacts on other heritage assets including Scheduled Monuments, in line with the requirements of National Planning Policy Framework (NPPF).¹

Site Location and Topography

- 1.3 The Site comprises a currently undeveloped irregular shaped parcel of land. It is bordered by Lizard Lane to the west, Kitchener Road to the north, Mill Lane (the A183) to the east, and a residential estate and primary school to the south.
- 1.4 The Site is located at the northern extent of the village of Whitburn in South Tyneside, Tyne and Wear, and is centred at NGR NZ 40568 63386. Whitburn village lies on the North East coast, three miles north of the city of Sunderland and four miles south of the town of South Shields. It is surrounded by open countryside, part of the South Tyneside Green Belt, and is on a gentle south facing slope overlooking Sunderland. The slope is part of the Durham magnesian limestone plateau which ends in a series of headlands and cliffs at the North Sea.
- 1.5 The proposed site boundary is shown on **Figure 1.1**.

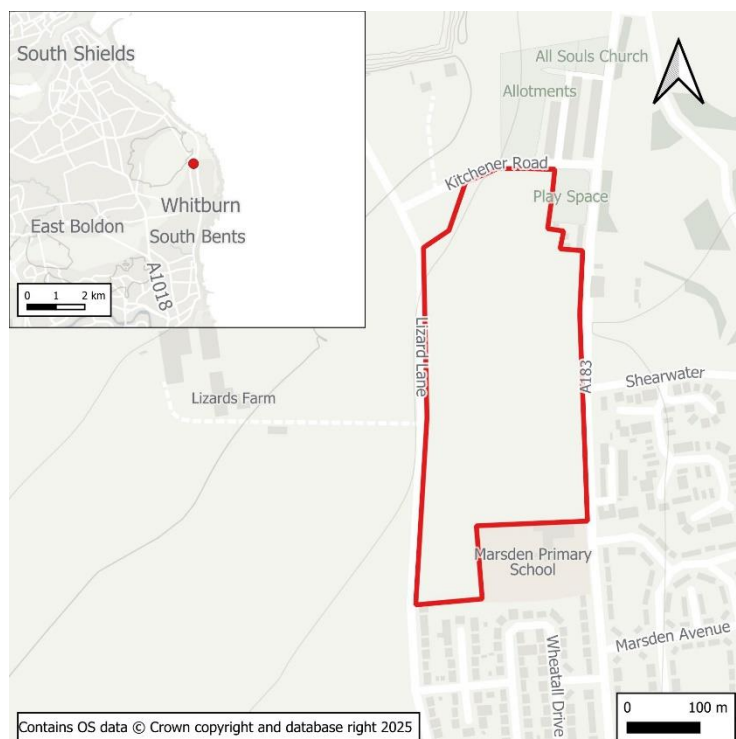


Figure 1 Site Location

¹ Ministry of Housing, Communities & Local Government, 2012 (as amended 2024) *National Planning Policy Framework*, Chapter 16, paragraph 207.

Geology and Soils

- 1.6 According to the online British Geological Survey (BGS) mapping, the underlying bedrock geology across the Site comprises Roker Formation of dolostone, a sedimentary bedrock formed between 272.3 and 252.2 million years ago during the Permian period.
- 1.7 The overlying superficial deposits in the eastern part of the Site are Devensian sand and gravel glaciofluvial deposits. In the western part of the Site, the superficial deposits are Devensian - Diamicton Till.²
- 1.8 The soils across the Site are varied. The majority of the Site comprises slightly acid loamy and clayey soils, with freely draining lime-rich loamy soils in the northwest corner, and slightly acid but base-rich loamy and clayey soils in the southeast corner.³

² British Geological Survey, *Geology of Britain Viewer* <https://geologyviewer.bgs.ac.uk>

³ LandIS, *Soilscapes*, <https://www.landis.org.uk/soilscapes>

2. PLANNING BACKGROUND

National Planning Policy Framework (NPPF)⁴

- 2.1 Chapter 16 of the NPPF, 'Conserving and Enhancing the Historic Environment', sets out the Government's planning policies for England and how these are expected to be applied to planning policy and the historic environment.
- 2.2 The preservation and enhancement of heritage assets forms an important part of the NPPF and is one of the core planning principles that should be used to underpin plan-making and decision-taking. The core principle outlined in paragraph 202 states that heritage assets should be:
- *'conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.'*
- 2.3 Chapter 16, paragraph 207, of the NPPF requires that the relevant Historic Environment Record (HER) be consulted and any heritage assets likely to be affected by the proposed development have their significance assessed using appropriate expertise. Where an application site may influence heritage assets, an appropriate desk assessment should be provided to inform the planning authority's decision making and, where appropriate, field evaluation will be undertaken to further inform planning decisions.
- 2.4 Paragraph 209 states, *'where there is evidence of deliberate neglect of, or damage to, a heritage asset, the deteriorated state of the heritage asset should not be taken into account in any decision'*.
- 2.5 Paragraph 210 of the NPPF is a fundamental consideration in determining planning applications. It states that local planning authorities should take account of the following three points:
- *'the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*
 - *the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*
 - *the desirability of new development making a positive contribution to local character and distinctiveness.'*
- 2.6 Paragraph 212 states that *'great weight should be given to a designated heritage asset's conservation'*, irrespective of the level of harm to its significance. It also states that *'the more important the asset, the greater the weight should be'*.
- 2.7 Chapter 16, paragraph 213, of the NPPF adds that any harm to, or loss of, the significance of a designated heritage asset *'should require clear and convincing justification'*.

⁴ Ministry of Housing, Communities & Local Government, 2012 (as amended 2024) *National Planning Policy Framework*, Chapter 16.

- 2.8 Chapter 16, paragraphs 214 and 215 state that that any harm caused by the proposal to heritage assets *'should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use'*.
- 2.9 Paragraph 216 states that *'the effect of an application on the significance of a non-designated 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.'*

Local Policy

- 2.10 The Site lies within the administrative boundary of South Tyneside Council. The South Tyneside Publication: draft Local Plan 2023-2040, which has been submitted to the Secretary of State for examination in public⁵, sets out the planning policies used to guide and determine future planning applications in South Tyneside. The following policies cover the assessing the acceptability of the proposed development:

Policy SP24: Heritage Assets

1. Development proposals that protect and where possible enhance the rich and diverse historic environment of the borough will be supported.
2. Development shall, where possible, make a positive contribution to strengthening links between culture and the historic environment through a better understanding of heritage significance.
3. Every effort will be made to put heritage assets to viable uses consistent with their heritage significance.

Policy 44: Archaeology Heritage Assets

1. Development that would affect a known or potential archaeological site, whether designated as a Scheduled Monument or non-designated, will require the results of a desk-based assessment to be submitted as part of the planning application. An archaeological evaluation may also be required to identify the most appropriate course of action. Proposals on sites where archaeological interest has been established by a previous find recorded in the Historic Environment Record will not be determined until the potential impact of the proposed development on archaeological deposits and remains has been adequately assessed and evaluated, and any adverse impacts can be avoided, minimised, or mitigated. In the absence of adequate information, applications will be refused.
2. Opportunities for information gain and investigations as part of proposed development will be maximised and added to the Historic Environment Record of the heritage asset, based on heritage significance. A balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

⁵ South Tyneside Council, 2024, South Tyneside Publication draft Local Plan 2023-2040, <https://www.southtyneside.gov.uk/article/21078/Publication-Draft-Local-Plan-2023-2040>

4. Where development has the potential to include heritage assets with archaeological interest, an appropriate desk-based assessment and, where necessary, field evaluation, will be required to allow any impact to be assessed.

Policy 45: Development Affecting Non-Designated Heritage Assets

1. Development should conserve and, where possible, enhance the character, appearance and setting of non-designated heritage assets. Proposals that manage development in such a way that sustains or enhances the significant of heritage assets and their settings will be supported.

2. Development that could affect previously unrecognised heritage assets will be expected to provide sufficient information for any impacts to be assessed.

3. In determining applications that would result in substantial harm to, or total loss of, a non-designated heritage asset or its setting, proposals must demonstrate that the public benefits of the development would outweigh any harm or loss.

3. INFORMATION SOURCES

- 3.1 The following sources of information have been consulted to meet the requirements of the assessment and are in line with guidelines laid down by the Chartered Institute for Archaeologists.⁶

Designated Heritage Assets

- 3.2 Historic England's National Heritage List for England Database was consulted for information on all designated Scheduled Monuments, Listed Buildings, Registered Parks and Gardens, Registered Battlefields, Conservation Areas and World Heritage Sites within the study area.⁷

Archaeological Archives and Databases

- 3.3 Information on previous archaeological finds and investigations within the study area was obtained from a search of the Tyne and Wear Historic Environment Record (HER).

Published and Unpublished Sources

- 3.4 A range of published and unpublished material has been researched and consulted. This includes academic articles together with general sources on the area and its wider archaeological and historical background. These are listed in the bibliography.

⁶ Chartered Institute for Archaeologists, 2020, *Standard and Guidance for Historic Environment Desk-based Assessment*.

⁷ Historic England, *The National Heritage List for England*, <https://historicengland.org.uk/listing/the-list>.

4. ASSESSMENT METHODOLOGY

- 4.1 An assessment was undertaken to determine the risk of encountering archaeological remains within the site and to assess the impact upon any heritage assets. It draws together information from the Historic Environment Record including reports on previous archaeological interventions within the study area. A selection of historical documents, Ordnance Survey maps, and aerial photographs are also assessed to facilitate this. The baseline archaeological background is based on a 1km study area of the Site.
- 4.2 The assessment methodology follows the guidance set out in Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment⁸. The impact assessment is undertaken with reference the *Principles of Cultural Heritage Impact Assessment in the UK*.⁹

5. BASELINE ASSESSMENT

- 5.1 The assessment considers in detail the heritage baseline within a 1km study area around the Site (see **Appendices 1 and 2**). Tabulated gazetteers summarising pertinent information for individual records are presented in **Appendix 1**. **Appendix 2** contains the figures. **Figure 2** contains the location of designated heritage assets, **Figure 3** depicts the location of non-designated heritage assets and **Figure 4** shows the location of previous archaeological events. **Appendix 3** contains historic maps of the area. **Appendix 4** includes the photographs for the walkover.
- 5.2 Where designated heritage assets, such as Listed Buildings, are mentioned in the text, the relevant Historic England list entry numbers are given. Non-designated heritage assets included on the Tyne and Wear Historic Environment Record (HER) are followed by the relevant HER number.
- 5.3 Within the study area, 15 archaeological events and 103 HER records are listed. These records date from the prehistoric to modern periods and include archaeological artefacts and features, buildings and structures.

Designated Heritage Assets

- 5.4 The study area does not lie within a World Heritage Site, nor does it contain a Scheduled Monument, Registered Battlefield or designated Registered Park and Garden, as defined by Historic England.
- 5.5 The National Heritage List for England (NHLE) records six designated assets within the study area.
- 5.6 The nearest designated asset to the Site is the Scheduled Monument Area of Lizard Farm, Heavy Anti-Aircraft Battery (**List Entry 1419998; HER 1795**). Occupying a level site within view of the North Sea, approximately 300m to the northwest of the Site, the Scheduled Area includes the buried, earthwork and standing remains of a multi-phase

⁸ English Heritage, 2008, *Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment*.

⁹ IEMA/IHBC/CIfA *Principles of Cultural Heritage Impact Assessment in the UK* (2021)

Second World War heavy anti-aircraft gun battery and radar site, as well as a Cold War heavy anti-aircraft gun and radar site.

- 5.7 Approximately 500m to the north of the Site, is the Grade II* Listed Souter Point Lighthouse (**List Entry 1185593; HER 2489**). When it opened in 1871, it was the most advanced lighthouse in the world. It was designed by Sir James N. Douglas of Trinity House, with cottages for the engineer and four keepers, engine house, boiler house and workshops constructed together around a courtyard. The engine house with foghorn is also Grade II listed (**List Entry 1355068; HER 8371**), as are the walls extending from Mill Lane enclosing the Lighthouse and linked buildings (**List Entry 1185616; HER 8059**). Further to the north along Mill Lane (A183) is the Scheduled Monument Area of the 19th century Marsden Lime Kilns (**List Entry 1005911; HER 1002**).
- 5.8 The Grade II Listed 18th century Whitburn Mill (**List Entry 1355075; HER 1029**) is also located off Mill Lane (A183) to the southeast of the Site and within the residential area of north Whitburn.
- 5.9 Due to the location of the proposed development, the impact on the setting of the listed buildings and Scheduled Monument Areas is negligible. The Site is shielded to the north by higher ground (**Photo 1; Appendix 4**) and to the south and southeast by a school and residential buildings (**Photo 2**). The Anti-Aircraft Battery to the northwest of the Site lies on a much higher elevation than the Site (Photos **3, 4** and **5**) and it is likely that the proposed two-storey residential homes will not impede the intended clear view from the battery to the North Sea. On this basis the designated heritage assets are not considered further in this assessment.

Archaeological and Historical Background

- 5.10 The following outlines the archaeological and historical background of the study area and is compiled from a review of the Tyne and Wear HER as well as available secondary sources.

Prehistoric

- 5.11 The earliest evidence of human occupation in Whitburn dates back to the Mesolithic period (10000–4000 BC). In March 1989, flint knapping waste was recovered from the cliff face at Potter's Hole, along with lumps of burnt daub from a timber structure (**HER 1998**). Further investigation identified a Mesolithic site, appearing as a band of peaty material c. 1m below ground with associated structural features and a pit cut into the limestone bedrock. The Potter's Hole site is one of considerable archaeological importance as Mesolithic sites with associated structures are exceptionally rare.¹⁰
- 5.12 Flint waste and tools of probable Mesolithic date have been found at several sites along the Whitburn coast (**HERs 842, 844, 845** and **846**) as well as at Souter Point (**HER 857**), on New Road (**HER 854**), at Marsden Quarries (**HER 855**) and at unrecorded locations in the general Marsden area (**HER 856**).

¹⁰ Pers comm. S. Speak, 1991, Tyne and Wear Museums, Archaeological Potential of the Area around Potter's Hole, Tyne and Wear; The Arbeia Society, 2004, *The Coast from South Shields to Whitburn - Archaeology and History* (Local Heritage Initiative Survey)

- 5.13 In 1923, a Neolithic (4000-2200 BC) flint tanged and barbed arrowhead was found in the school garden at Marsden (**HER 852**). Neolithic flint tools and hand-worked pieces have also been recorded at Marsden (**HER 853**).¹¹
- 5.14 The evidence for human activity in the area during the prehistoric period extends to the Bronze Age (2600-700 BC). In 1929, during road widening near Wheatall Farm, approximately 500m to the south of the Site, a Bronze Age cist burial was found. The cist contained a contracted inhumation aged c. 35 years, a barbed and tanged arrowhead, other worked flints and limpets (**HER 847**).

Roman

- 5.15 While no definitive Roman settlement has been identified at Whitburn, the area has yielded numerous Roman coins and metal harness fittings, indicating at least some Roman presence or activity. However, the HER does not record any findspots of Roman artefacts within the study area.

Medieval Period

- 5.16 Whitburn is first mentioned in the Boldon Book of 1183, a survey of land belonging to the Bishop of Durham, Hugh du Puiset. The village is recorded as *Whitberne* meaning a freshwater stream or burn, probably referring to the stream running through the village pond and on to the sea at Bents Cottages to the south of the village. Other possible origins of the name are "*Hwita Byrgen*" or Hwita's tumulus, i.e. the place where Saxon nobleman Hwita was buried, and "*Kwit-Berne*", the Anglo-Saxon or early English word for a tithe barn, which was sited off Church Lane. During the medieval period, the village developed as a two-row green village, a layout still evident today.¹²
- 5.17 The Site lies some distance north of the medieval core of Whitburn, therefore there is limited medieval evidence within the study area. There is documentary evidence of a medieval windmill at Whitburn, however, the exact location is unknown. The HER records the location at the site of the 18th century mill which survives and perhaps marks the site of the earlier medieval mill (**HER 962**).
- 5.18 There are several areas of medieval ridge and furrow as have been mapped by historic aerial photography, including on Whitburn Common Fields (**HER 887**), near Whitburn (**HER 12585**) and on Boldon Flats (**HER 11686**).

Post-medieval

- 5.19 Until the mid-19th century, Whitburn was a largely agricultural and fishing community. During the early Victorian period the population remained almost constant at about 800, and the 1851 Census shows only 115 homes in Whitburn. However, the population quickly began to grow due to increased industrialisation, particularly glassmaking, shipbuilding and mining.¹³
- 5.20 There were numerous quarries in the study area, the majority of which were limestone quarries (HERs **2325, 2326, 2327, 2328, 2417, 2418, 2419, 2420, 2421, 2422, 2424, 2487, 2488**).

¹¹ Miket, R., 1984, *The Prehistory of Tyne and Wear: An Inventory of Prehistoric Discoveries in the Metropolitan County of Tyne and Wear*, Northumberland Archaeological Group Publication Series

¹² South Tyneside Council, 2006, *Whitburn Conservation Area. Character Appraisal*, <https://www.southtyneside.gov.uk/article/3894/Character-appraisals-and-management-plans>

¹³ South Tyneside Council, 2006, *Whitburn Conservation Area. Character Appraisal*, <https://www.southtyneside.gov.uk/article/3894/Character-appraisals-and-management-plans>

and **2426**). In 2016 a tunnel was uncovered at a limestone quarry which possibly ran between other quarries (**HER 17541**). Historic maps have shown there was also a sandstone quarry (**HER 2423**), an undesignated quarry (**HER 2576**), and an Old Quay to the south of Byer's Hole which was also the site of a sulphur mineral spring (**HER 2425**).

- 5.21 Whitburn Colliery was established in the 1870s (**HER 2493**). It became a major employer and contributed to the local economy and population growth. The 1891 Census gives a figure of 3738 living in Whitburn, comprising wealthy industrialists, entrepreneurs, coalminers, quarrymen and fishermen.¹⁴ A new village was also built for colliery workers and their families in the 1870s, directly north of Souter Lighthouse. This new village was named Marsden (**HER 6805**) and comprised of nine streets with a total of 135 houses with a population of around 600. A road (**HER 6820**) with a toll house (**HER 6819**) connected the village to Lizard Lane.
- 5.22 The colliery also contributed to the development of a local railway network. The South Shields, Marsden and Whitburn Colliery Railway, known as the Marsden Rattler (**HER 2466**), was built by the Harton Coal Company in 1873 and was carrying passengers by 1888. The line ran from Whitburn Colliery to the North Eastern Paper Mills (**HER 2496**), and had a station at Marsden (**HER 2485**). Other railway lines (**HERs 2483, 2484 and 2494**) connected other quarries (**HER 2491 and 2492**) and the limekilns (**List Entry 1005911; HER 1002**) to the main South Shields, Marsden and Whitburn Colliery Railway line.
- 5.23 Whitburn Colliery closed in 1968 due to operational challenges, including water ingress from undersea shafts. Marsden village was also demolished in the 1960s. The HER records several late 19th century buildings and institutions of the former Marsden village as documented on historic maps. These comprise a Methodist Church (**HER 6806**), the Church of St Andrew (**HER 6821**), a school (**HER 6807**), mission room (**HER 6808**) and the post office (**HER 6809**).
- 5.24 The wider area around Whitburn and Marsden remained largely agricultural in the post-medieval period, with several farmsteads in the study area, comprising Lizards (**HER 6830**), Lizard House (**HER 6831**), Welling's Farm (**HER 6832**), Well House Farm (**HER 6833**), and Hope House Farm (**HER 19170**) which was located immediately to the east of the Site. Hope House Farm was later taken over by Whitburn Colliery and the main farmhouse became a public house called Whitburn Lodge. The pub survives but as of 2025, is derelict and fire damaged. Several areas of post-medieval and medieval to post-medieval ridge and furrow have been mapped by historic aerial photography (**HER 12583**). Some areas are no longer extant on later air photographs and others have now been built over.
- 5.25 The remaining post-medieval HER assets within the study area comprise, two reservoirs (**HERs 2486 and 2490**), a well (**HER 6834**), South Shields Golf Club (**HER 16956**) and two shipwreck sites off the coast (**HERs 13820 and 15080**).

Modern

- 5.26 During the First World War, Whitburn had primary shore and cliff defences. Within the study area are several WWI military sites, comprising the Lizard Farm Radar Station (**HER 5523**) and the Lizard Lane Command Post (**HER 1835**) to the west of the Site, Marsden Kitchener Battery (**HER 4616**) and Lizard Point 'Target Rock' (**HER 6836**) to the north of

¹⁴ *ibid.*

the Site, and the Whitburn Rifle Ranges to the southeast of the Site, which were used during WWI for practice trenches and garrison accommodation (**HER 2587**).

- 5.27 The coastline at Whitburn often came under attack from German bombing raids during the Second World War. The village also suffered damage from bombing raids, leading to the loss of historical structures like the tithe barn. As well as the Lizard Farm, Heavy Anti-Aircraft Battery (**List Entry 1419998; HER 1795**), other various coastal defence installations and monitoring stations were located at Whitburn and along the coastline. These comprise the bombing decoy at Wellands Farm (**HER 5515**), a Searchlight Battery (**HER 5539**), the Coastal Battery at Lizard Lane (**HER 11691**), Marsden Radar Station (**HER 12582**) and a Royal Observer Corps Monitoring Post (**HER 5884**). There were also several pillboxes (**HERs 5350, 5355, 5427, 12580, 12581, 13605 and 13606**), with one located immediately to the west of the Site (**HER 1794**), and aircraft obstruction sites (**HERs 11695 and 12584**).
- 5.28 The Whitburn Rifle Ranges were again used by the military during WWI for practice trenches (**HER 12586**) and two pillboxes and numerous military buildings were constructed on the site (**HER 12587**). Historic aerial photography has recorded another temporary military depot near Whitburn Golf Club (**HER 11685**).
- 5.29 The remaining modern HER assets in the study area relate to sites and buildings, mostly in the former Marsden village area north of the Site. These comprise the Whitburn mine shaft (**HER 2588**), Swinness Coal Depot (**HER 15486**), Marsden Ambulance Hall (**HER 15487**), Marsden Miners' Institute Reading Room (**HER 15488**), Mill Lane Primitive Methodist Church (**HER 6822**), Marsden allotment gardens (**HER 15489**), Marsden bowling green (**HER 15490**), and Marsden Miners' Welfare Field (**HER 15491**). There is also the site of a modern shipwreck, the Island Prince which ran aground near Marconi Point in 1927 (**HER 13878**).

Unknown date

- 5.30 There are two heritage assets of unknown date within the study area.
- 5.31 In the latter part of the 19th century, during the quarrying of limestone on the east escarpment of the Cleadon Hills near Whitburn Lizards, old sea-caves were uncovered. Five feet apart, the two caves were reported to be 140ft above sea level, 15ft from the top of the cliff, and to run west into the hill. As well as animal bones, both caves contained human bones (**HERs 867 and 868**). The position and arrangement of the bones was not recorded and by the end of the century, the site had been quarried away. Although the exact date of the animal and human bones has not been determined, the caves were included in Miket's 1984 gazetteer of prehistoric sites.¹⁵

Previous Archaeological Investigations

- 5.32 A total of 15 archaeological investigations have been undertaken within the study area. These are listed in **Appendix 1** and shown in **Appendix 2, Figure 4**. Investigations relevant to the archaeological potential of the Site are discussed below.

¹⁵ Miket, R., 1984, *The Prehistory of Tyne and Wear: An Inventory of Prehistoric Discoveries in the Metropolitan County of Tyne and Wear*, Northumberland Archaeological Group Publication Series

- 5.33 In 1999, a geophysical survey was undertaken at the WW2 anti-aircraft battery site, south of Hillhead Poultry Farm, approximately 300m to the west of the Site (**Event 2023**). This was in an area close to known prehistoric activity. The survey identified a number of field boundaries, ridge and furrow, possible WW2 defences and a curvilinear feature of unknown origin (Timescape Archaeological Surveys, 1999).
- 5.34 A desk-based assessment was carried out in 2023 in advance of a proposed development at Whitburn Lodge, immediately to the east of the Site (**Event 5456**). The report concluded that the site has low potential for archaeological remains dating prior to the late 19th century and 20th century Whitburn Colliery. Archaeological remains comprising brick and concrete foundations relating to Whitburn Colliery were identified as probably present in the northern and eastern parts of the site.

Cartographic Analysis and Historic Photography

- 5.35 The Ordnance Survey (OS) 1862 (**Appendix 3, Figure 5**) depicts the Site over two agricultural fields between Lizard Lane to the west and Mill Lane to the east. Hope House Farmstead is depicted immediately outside the northeast boundary of the Site. The area north and south of the Site, and either side of Lizard Lane and Mill Lane, is made up of agricultural fields with scattered farmsteads and quarries across the landscape.
- 5.36 By the OS of 1921 (**Appendix 3, Figure 6**) Whitburn Colliery is depicted to the northeast of the Site which has incorporated the former Hope House Farmstead. The railway line connecting Whitburn Colliery to the North Eastern Paper Mills is shown, and the line running north from the Colliery to the village of Marsden. Along the railway line to Marsden are several village buildings including the Methodist Church and St Andrew's Church. There are new buildings on Mill Lane to the southeast of the Site and a reservoir is depicted to the north of the Site. The wider area to the west of Lizard Lane remains agricultural fields with farmsteads and small old quarries.
- 5.37 There is further development to the south and east of the Site on the OS of 1954 (**Appendix 3, Figure 7**). A school, a playing field and a large residential estate lie to the south and southeast of the Site. Whitburn Colliery to the northeast has also expanded. The Site itself is now over a single large field and there is a small complex of buildings, presumably part of Whitburn Colliery, in the northeastern corner of the Site. The area to the west of Lizard Lane remains as agricultural fields.

6. GEOPHYSICAL SURVEY

- 6.1 A geophysical survey of the Site was undertaken in October 2025 by Archaeological Services Durham University (ASDU) to further assess the Site's archaeological potential.
- 6.2 Magnetic gradient measurements were taken using a Sensys Magneto MX V3 multi-sensor magnetometer survey system towed by a quad-bike. Eight FGM650/3 fluxgate gradiometer sensors were mounted at 0.5m intervals, logging data at less than 0.08m intervals along traverses.
- 6.3 The survey determined the presence of large concentrations of probable dumped material and ground disturbance along the eastern and northwestern edge of the Site.
- 6.4 Possible traces of former ridge and furrow cultivation were recorded as well as other features whose date is not known. These are generally isolated and do not suggest the presence of significant occupation or settlement activity.
- 6.5 An infilled former pond was recorded within the southwestern part of the Site, as shown on historic Ordnance Survey maps.

7. CONCLUSION

- 7.1 There is evidence for prehistoric activity in the wider area, although this is mainly limited to casual findspots. No heritage assets are recorded within the Site, similarly there is no suggestion of prehistoric or later activity from the geophysical survey undertaken.
- 7.2 The Site lies to the north of the medieval core of the village of Whitburn and was likely within an expansive area of medieval common and agricultural land. There is a high potential for medieval and post-medieval agricultural activity (ridge and furrow). The geophysical survey undertaken has determined that there is evidence for this across the Site, with furrows particularly evident within the central and southern area. The later agricultural use of the Site is also evident on historic OS maps.
- 7.3 The 1954 OS maps show two buildings within the north-eastern part of the Site which are likely to relate to the former Whitburn Colliery. An area of disturbance recorded by the geophysical survey is likely to correspond to this.
- 7.4 Other than medieval and post-medieval agricultural use and the appearance of two colliery buildings in the mid-20th century there is limited evidence for earlier occupation or settlement activity dating to the medieval period or earlier. Subsequently no further archaeological works are recommended.
- 7.5 The Proposed Development will have a negligible impact on the identified listed assets and the Scheduled Heavy Anti-Aircraft Battery (**1419998**). It has been determined that the battery is situated on much higher ground with clear views out to sea. These will not be impeded by the development proposals.

8. BIBLIOGRAPHY

Archaeological Services Durham University, 2025, Land at Lizard Lane Whitburn, South Tyneside – Geophysical Survey, ASDU report 6303

Archaeological Services Durham University, 2023, Whitburn Lodge, Sunderland, Tyne and Wear: heritage statement. ASDU report 6013

British Geological Survey, Geology of Britain Viewer, <https://geologyviewer.bgs.ac.uk/>, viewed

Chartered Institute for Archaeologists, 2020, *Standard and Guidance for Historic Environment Desk-based Assessment*

English Heritage, 2008, *Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment*

Free Map Tools, Elevation Finder, <https://www.freemaptools.com/elevation-finder.htm>, viewed March 2025

Historic England, 2017, *The Setting of Heritage Assets: Historic Environment Good Practice in Planning Note 3 (Second Edition)*

Historic England, 2019, *Statements of Heritage Significance: Analysing Significance in Heritage Assets (Advice Note 12)*

Historic England, *The National Heritage List for England*, <https://historicengland.org.uk/listing/the-list>

LandIS, Soilscales Viewer, <http://www.landis.org.uk/soilscales>

Miket, R., 1984, *The Prehistory of Tyne and Wear: An Inventory of Prehistoric Discoveries in the Metropolitan County of Tyne and Wear*, Northumberland Archaeological Group Publication Series

Ministry of Housing, Communities & Local Government, 2012 (as amended 2024), *National Planning Policy Framework*

South Tyneside Council, 2024, *South Tyneside Publication draft Local Plan 2023-2040. January 2024*, <https://www.southtyneside.gov.uk/article/21078/Publication-Draft-Local-Plan-2023-2040>

The Arbeia Society, 2004, *The Coast from South Shields to Whitburn - Archaeology and History (Local Heritage Initiative Survey)*

South Tyneside Council, 2006, *Whitburn Conservation Area. Character Appraisal*, <https://www.southtyneside.gov.uk/article/3894/Character-appraisals-and-management-plans>

APPENDIX 1

Catalogue entries for heritage assets and archaeological events recorded on the Historic Environment Record (HER), and those identified as part of this assessment, are provided below. Each entry includes a National Grid Reference (NGR) and the relevant List Entry or HER reference numbers.

Table 1: Gazetteer of Designated Assets

REF (List Entry No./ HER)	NAME	GRID REF	GRADE	DESCRIPTION
1005911	Marsden Lime Kilns	NZ 40465 64409	Scheduled Monument	The lime kilns are right on the coast and visible as you drive along the A183 coast road in South Shields. You can also get fairly close to them on foot, but there is a barrier just in front of them to prevent people going inside.
1419998	Lizard Lane Heavy Anti-Aircraft Battery	NZ4002063643	Scheduled Monument	Occupying a level site within view of the North Sea. Lizard Lane Farm Battery includes the buried, earthwork and standing remains of a multi-phase Second World War heavy anti-aircraft gun battery and radar site, as well as a Cold War heavy anti-aircraft gun and radar site.
1185593	Souter Point Lighthouse And Attached Buildings	NZ 40807 64169	II*	Lighthouse, engine house, boilerhouse, workshops and houses. 1871 by Sir James N Douglas for Trinity House, London. Rendered; Welsh slate roofs. 4 ranges of buildings around a courtyard with the lighthouse connected to the east range. Lighthouse : 75-foot tapered tower with square window openings and at top south a window to allow a light to be seen for entrance to the Wear; overhanging walkway with iron railings around dome-topped lantern of iron. Engine house, boilerhouse and workshops : western one-storey range having central door and 3 windows all round-headed in raised surrounding arches with keystones, garage door and modern door inserted; raised quoins; moulded kneelers supporting painted gable coping; 2 painted square end chimneys. Houses : south, east and north 2-storey ranges each containing 2 houses with projecting square porches having 5-panelled doors in the return; 3 sash windows to each house front, 2 in each west gable joining the one-storey block; raised quoins;. roof with overhanging eaves is hipped, with 2 painted, corniced panelled chimneys to each ridge.
1185616	Walls Extending From Mill Lane Around The Lighthouse And Linked Buildings	NZ 40735 64149	II	Walls enclosing entrance and buildings. 1871 by Sir James N Douglas for Trinity House, London. Whitewashed stone. A pair of walls encloses the entrance drive to the lighthouse and its buildings, breaking into quadrants before forming a rectangular enclosure around buildings and gardens. Roughly squared coursed rubble with round coping.

REF (List Entry No./ HER)	NAME	GRID REF	GRADE	DESCRIPTION
1355068	Souter Point Lighthouse Foghorn To East Of Lighthouse And Steps And Walls To East Of Lighthouse	NZ 40856 64182	II	Engine house with foghorn, 1871 by Sir James Douglas for, Trinity House, London. Rendered, painted iron horn. One storey, one bay with raised quoins, cornice; door in west side, window in south. Flat roof with drum bearing the horn. Steps and walls; white-rendered serpentine walls with round coping, ending in piers with low pyramidal caps, flank steps up to the wall enclosing the lighthouse; the same type of walling forms an enclosure for the horn.
1355075	Whitburn Mill	NZ 40702 62566	II	Tower Mill. 1790. Coursed, roughly squared limestone; sandstone blocks top course. 3 storeys; entrances and windows on north and south, all blocked. Cap and sails removed.

Table 2: Gazetteer of Non-designated Assets

REF (HER)	NAME	PERIOD	DESCRIPTION
2423	Sandstone Quarry	Unknown	Whitburn, Sandstone Quarry
2420	Limestone Quarry	Unknown	Whitburn, Limestone Quarry
2418	Limestone Quarry	Unknown	Whitburn, Limestone Quarry
2426	Limestone Quarry	Unknown	Whitburn, Limestone Quarry
2485	Station	Unknown	Marsden Station
2421	Limestone Quarry	Unknown	Whitburn, Limestone Quarry
2422	Limestone Quarry	Unknown	Whitburn, Limestone Quarry
2425	Quay	Unknown	Whitburn, Quay
844	Flints	Unknown	Whitburn, Souter Point, flints
857	Flints	Unknown	Whitburn, Souter Point, flints
842	Flints	Unknown	Whitburn, flints
845	Flints	Unknown	Whitburn, flints
846	Flints	Unknown	Whitburn, flints
868	Animal Bones	Unknown	Whitburn Lizards, animal bones
867	Human Bones	Unknown	Whitburn Lizards, human bones
855	Flints	Unknown	Marsden Quarry, flints
852	Barbed Arrowhead	Unknown	Marsden School Garden, tanged and barbed arrowhead

REF (HER)	NAME	PERIOD	DESCRIPTION
853	Flints	Unknown	Marsden, Hob & Joan Orchard, flints
854	Flints	Unknown	Marsden, New Road, flints
847	Cist	Unknown	Cist
1794	Pillbox	Unknown	Base of pillbox
1835	Gun Turret	Unknown	Command post for former gun turret
962	Windmill	Unknown	Medieval windmill
856	Flints	Unknown	Flints
849	Barbed Arrowhead	Unknown	Barbed and tanged arrowhead
850	Flints	Unknown	Flint knives and flakes
848	Inhumation In Cist	Unknown	Inhumation in cist
1998	Flints	Unknown	flints
4616	Kitchener Battery	Unknown	Kitchener Battery
5350	Pillbox	Unknown	Souter Point, pillbox
5355	Pillbox	Unknown	Lizard Farm, pillbox
5427	Pillbox	Unknown	Whitburn, pillbox
5539	Searchlight	Unknown	Whitburn, Searchlight
5884	ROC Post	Unknown	Whitburn, ROC post
6834	Welling's Well	Unknown	Welling's Well
6836	Pillar	Unknown	Lizard Point, pillar
12581	Pillbox	Unknown	Pillbox
13605	Pillbox	Unknown	Pillbox
13606	Pillbox	Unknown	pillbox
2466	Railway	C19	South Shields, Marsden and Whitburn Colliery Railway
2483	Railway	C19	Marsden, Railway
2484	Railway	C19	Marsden, Railway
2494	Railway	C19	Marsden, Railway
6820	Road	C19	Marsden to Lizard Lane toll road
17541	Tunnel	C19	Marsden Quarry tunnel
2587	Rifle Ranges	Unknown	No Description

REF (HER)	NAME	PERIOD	DESCRIPTION
2576	Whitburn, Quarry	C19	No Description
2493	Whitburn Colliery	C19	No Description
2490	Marsden, Reservoir	Unknown	No Description
2486	Marsden, Reservoir	Unknown	No Description
2491	Marsden, Quarry	C19	No Description
2492	Marsden, Quarry	C19	No Description
2496	Northeastern Paper Mills	Unknown	No Description
2588	Whitburn, Mine Shaft	Unknown	No Description
2325	Whitburn, Limestone Quarry	C19	No Description
2327	Whitburn, Limestone Quarry	C19	No Description
2328	Whitburn, Limestone Quarry	C19	No Description
2424	Whitburn, Limestone Quarry	C19	No Description
2419	Whitburn, Limestone Quarry	C19	No Description
1002	Marsden Limekilns	Unknown	No Description
1029	Whitburn Mill	Unknown	No Description
1795	Anti Aircraft Battery	Unknown	No Description
2326	Limestone Quarry	C19	No Description
2417	Limestone Quarry	C19	No Description
2466	Marsden Rattler, Earthworks	Unknown	No Description
2484	Marsden Railway, Earthworks	Unknown	No Description
2466	Marsden Rattler, Earthworks	Unknown	No Description
6832	Wellings	Unknown	No Description
6831	Lizard House	Unknown	No Description
6830	Lizards	Unknown	No Description
6806	Methodist Chapel	Unknown	No Description
6807	School	Unknown	No Description
6805	North Street	Unknown	No Description
6807	School	Unknown	No Description
6808	Mission Room	Unknown	No Description

REF (HER)	NAME	PERIOD	DESCRIPTION
6809	Post Office	Unknown	No Description
6819	Toll House	Unknown	No Description
6833	Well House Farm	Unknown	No Description
2488	Marsden, Limestone Quarry	Unknown	No Description
2487	Marsden, Limestone Quarry	Unknown	No Description
2487	Hob And Joan Orchard, Old Quarry	Unknown	No Description
6821	St Andrew's Church	Unknown	No Description
2489	Souter Point Lighthouse	C19	No Description
8371	Souter Point Lighthouse, Foghorn	C19	No Description
11691	Coastal Battery	Unknown	No Description
11685	Military Depot	WWI	No Description
5523	Radar Station	Unknown	No Description
11686	Ridge And Furrow	Post Medieval	No Description
11695	Aircraft Obstructions	WWI	No Description
12582	Radar Station	Unknown	No Description
12584	Aircraft Obstruction	WWI	No Description
12586	Practice Trench	WWI	No Description
12585	Medieval Ridge And Furrow	Medieval	No Description
12586	Practice Trench	WWI	No Description
12587	Military Building	Unknown	No Description
887	Ridge And Furrow	Post Medieval	No Description
12583	Ridge And Furrow	Post Medieval	No Description
5515	Bombing Decoy	Unknown	No Description
15486	Swinness Coal Depot	Unknown	No Description
15487	Ambulance Hall	Unknown	No Description
15488	Miners Institute Reading Room	C20	No Description
15489	Allotment Gardens	Post Medieval	No Description

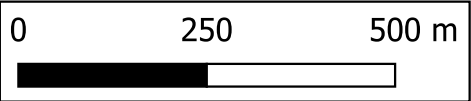
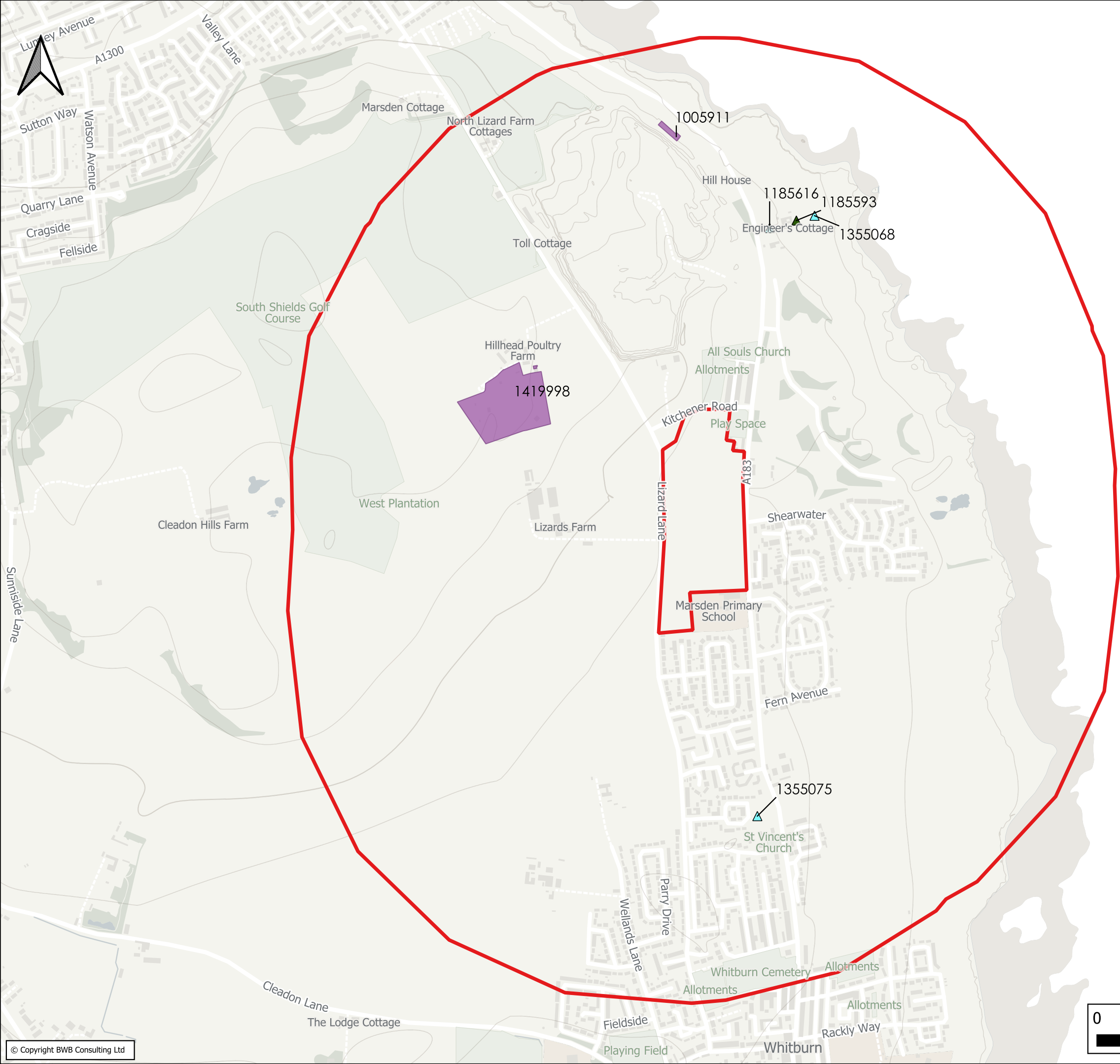
REF (HER)	NAME	PERIOD	DESCRIPTION
15490	Bowling Green	Unknown	No Description
15491	Marsden Miners Welfare Field	Unknown	No Description
16956	South Shields Golf Club	Unknown	No Description
6822	Methodist Church	C20	No Description
12580	Whitburn Golf Course, Pillbox	Unknown	No Description
19170	Hope House Farm	Unknown	No Description
13820	Cecilia	Unknown	Shipwreck Site
13878	Island Prince - NGR Unknown	Unknown	Shipwreck Site
15080	Dispatch - NGR Unknown	Unknown	Shipwreck Site
LSHA/69/SS	Coast Road	Unknown	Locally Listed Building
LSHA/73/SS	Lizard Lane	Unknown	Locally Listed Building
LSHA/191/W	Mill Lane	Unknown	Locally Listed Building
LSHA/193/W	Wellands Lane	Unknown	Locally Listed Building

Table 3: Gazetteer of Archaeological Events

REF (HER)	NAME	DESCRIPTION
1561	Assessment	Marsden Quarry
1995	Assessment	Whitburn Coastal
3865	Assessment	Whitburn Army Camp
3874	Assessment	Whitburn Army Camp
5418	Earthwork Survey	Cleadon Hills Farm
4282	Survey	Cleadon Village Atlas
4285	Assessment	Marsden Limekiln
4286	Assessment	Marsden Limekiln
2023	Geophysics	Marsden Quarry
3897	Evaluation	army camp

REF (HER)	NAME	DESCRIPTION
3897	Evaluation	army camp
3897	Evaluation	army camp
3897	Evaluation	army camp
3897	Evaluation	army camp
3897	Evaluation	army camp
3897	Evaluation	army camp
1977	Assessment	Marsden Limekiln
1990	Building Recording	Marsden Limekiln
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
1990	Building Recording	Marsden Limekilns
5456	Assessment	Former Whitburn Lodge
5459	Assessment	Whitburn Coastal
5569	Watching Brief	Souter Lighthouse

APPENDIX 2: Figures



Notes

1.Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.

2.This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

3.All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.

4.Any discrepancies noted on site are to be reported to the engineer immediately.

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- Key
- Site Location
 - Study Area
 - Scheduled Monument
 - ▲ Grade II* Listed Building
 - ▲ Grade II Listed Building

P01	19.05.2025	FINAL ISSUE		SE	JM
Rev	Date	Details of issues/ revision		Drw	Rev

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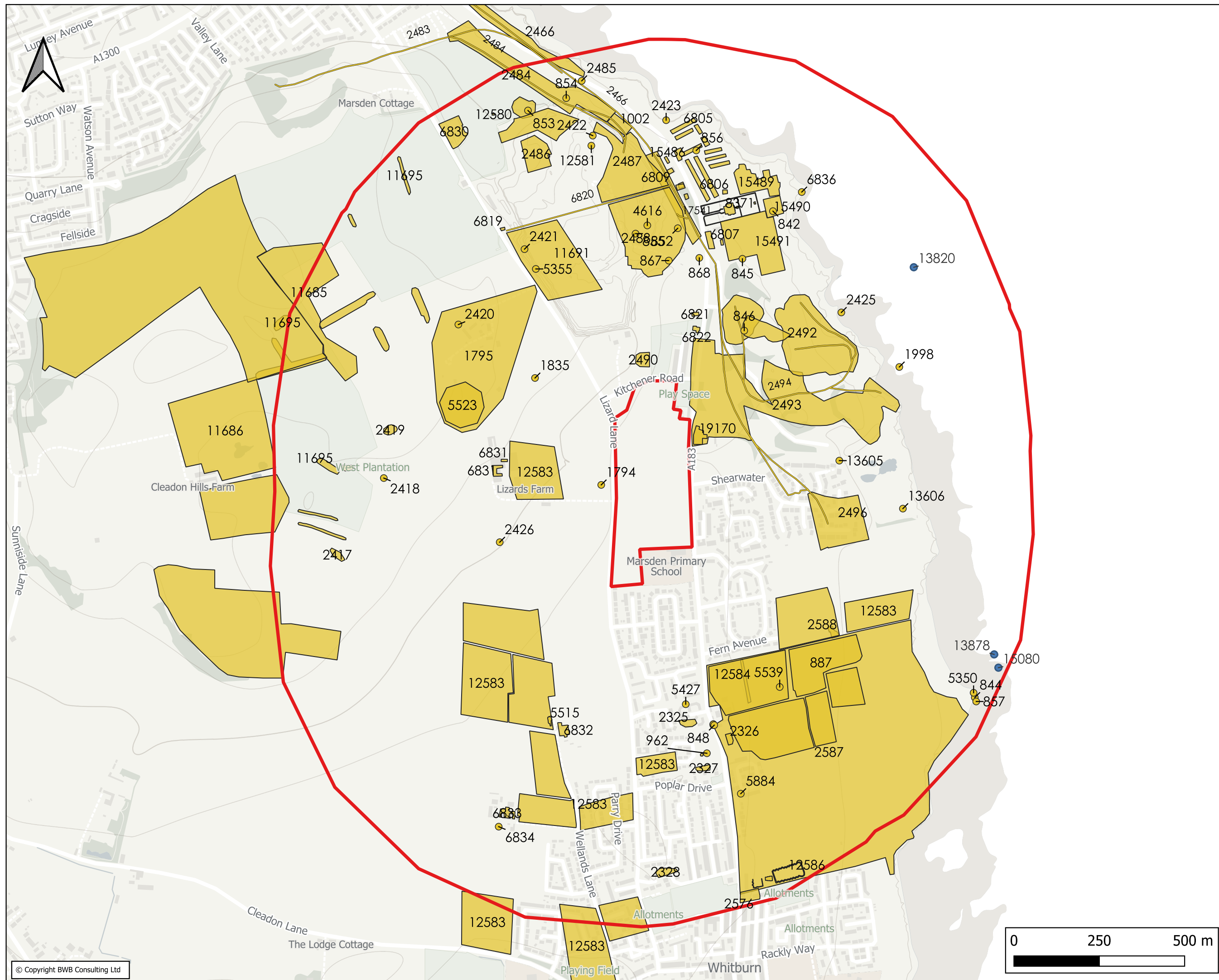
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Drawing Title

FIGURE 2: LOCATION OF DESIGNATED ASSETS

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BWB Ref:	255481	Date:	19.05.2025
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Drawing Status			
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Key

 Site Location

 Study Area

- Monument Point

— Monument Line

 Monument
Polygon

- Shipwrecks

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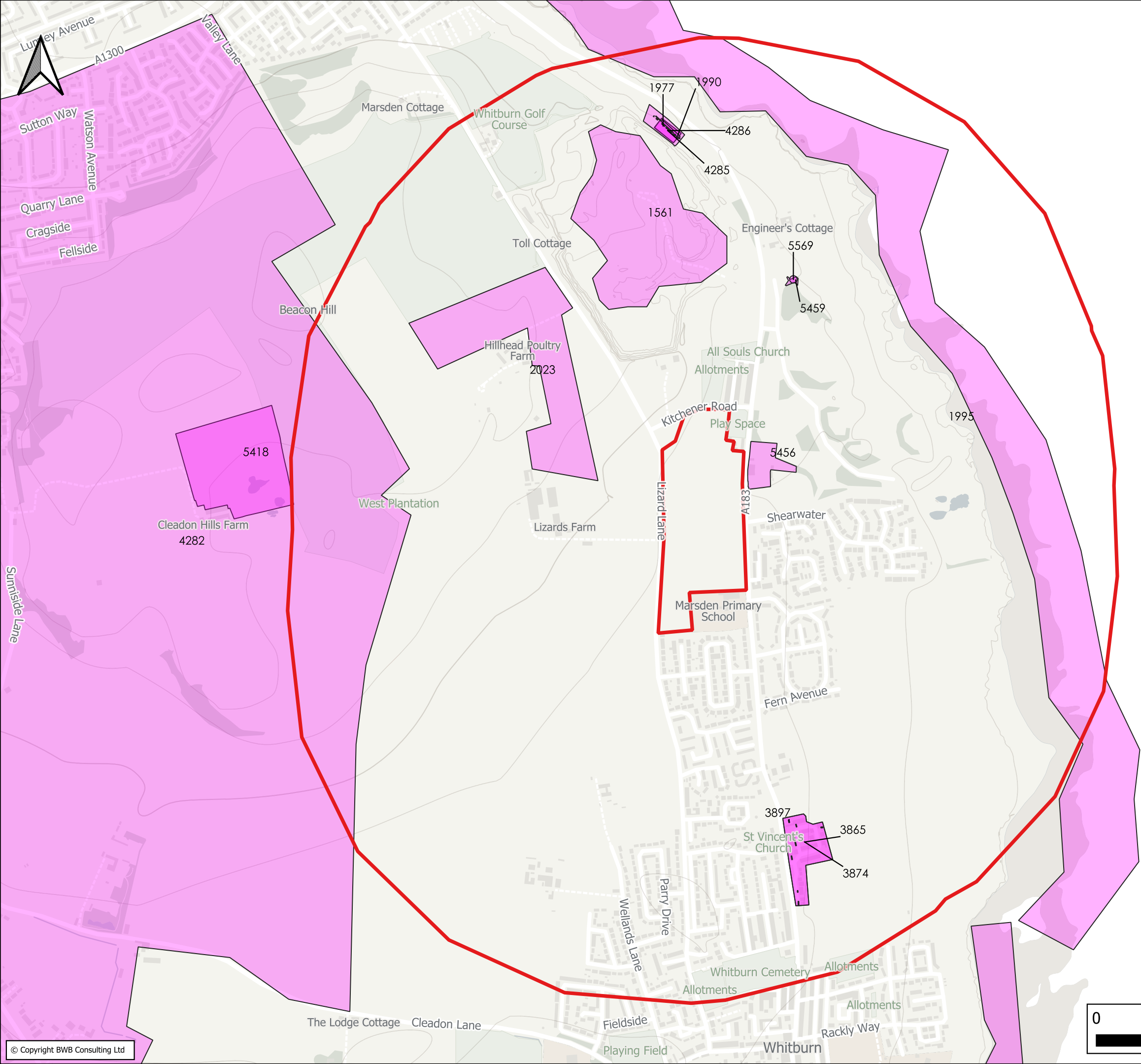
FIGURE 3: LOCATION OF NON-DESIGNATED ASSETS

Drawn:	SASKIA EDWARDS		Reviewed:	JIM MACQUEEN	
BWB Ref:	255481	Date:	19.05.2025	Scale@A3:	NTS

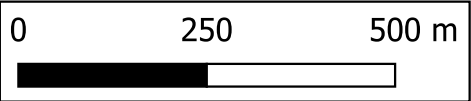
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- Key
- Site Location
 - Study Area
 - Event Polygon

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**FIGURE 4:
ARCHAEOLOGICAL
EVENTS**

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FINAL					
Project - Originator - Zone - Level - Type - Role - Number				Status	Rev
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APPENDIX 3: Map Regression

APPENDIX 4



Figure 5: 1862 Ordnance Survey Map. Reproduced with the permission of the National Library of Scotland.

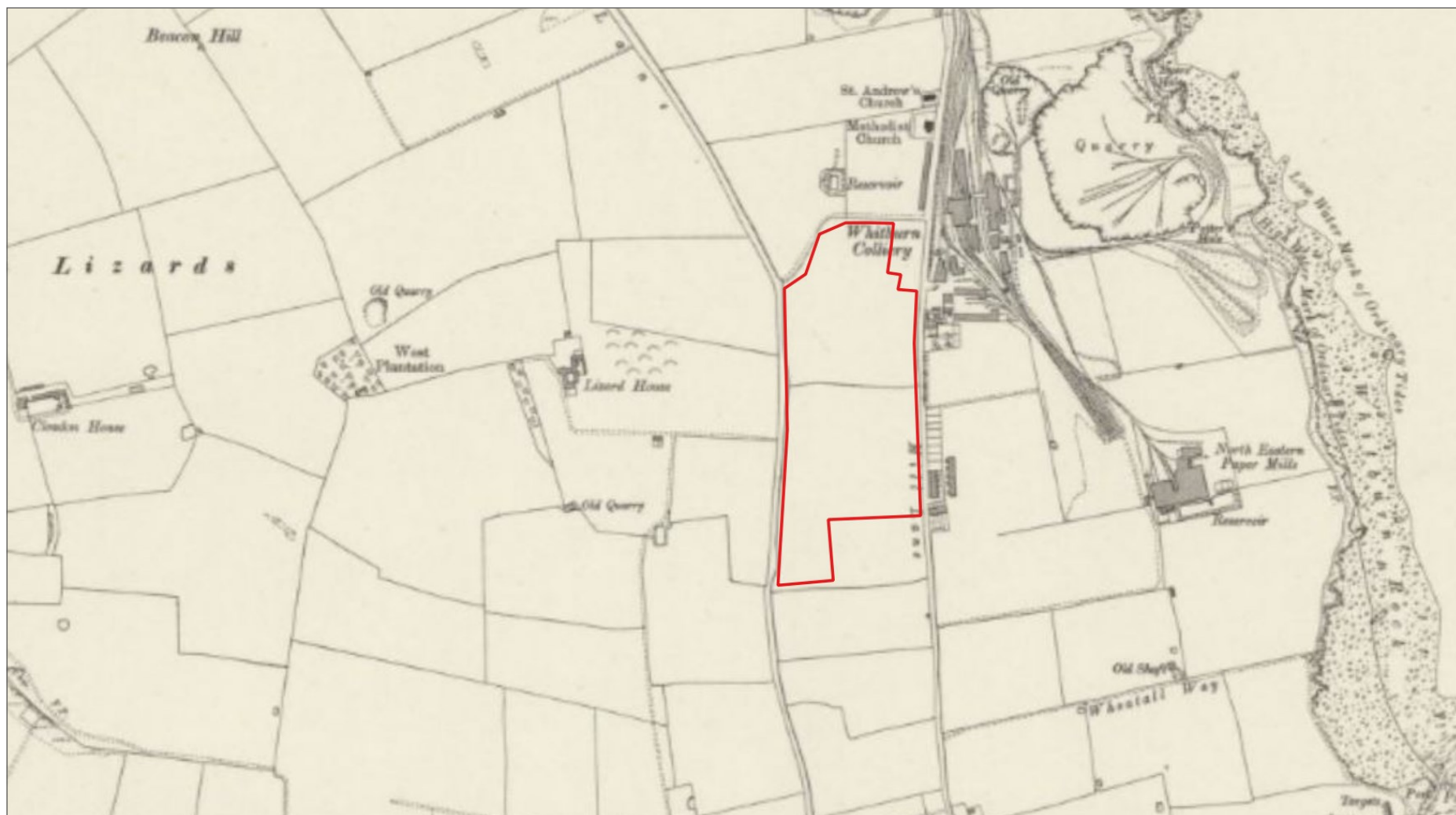


Figure 6: 1921 Ordnance Survey Map. Reproduced with the permission of the National Library of Scotland.

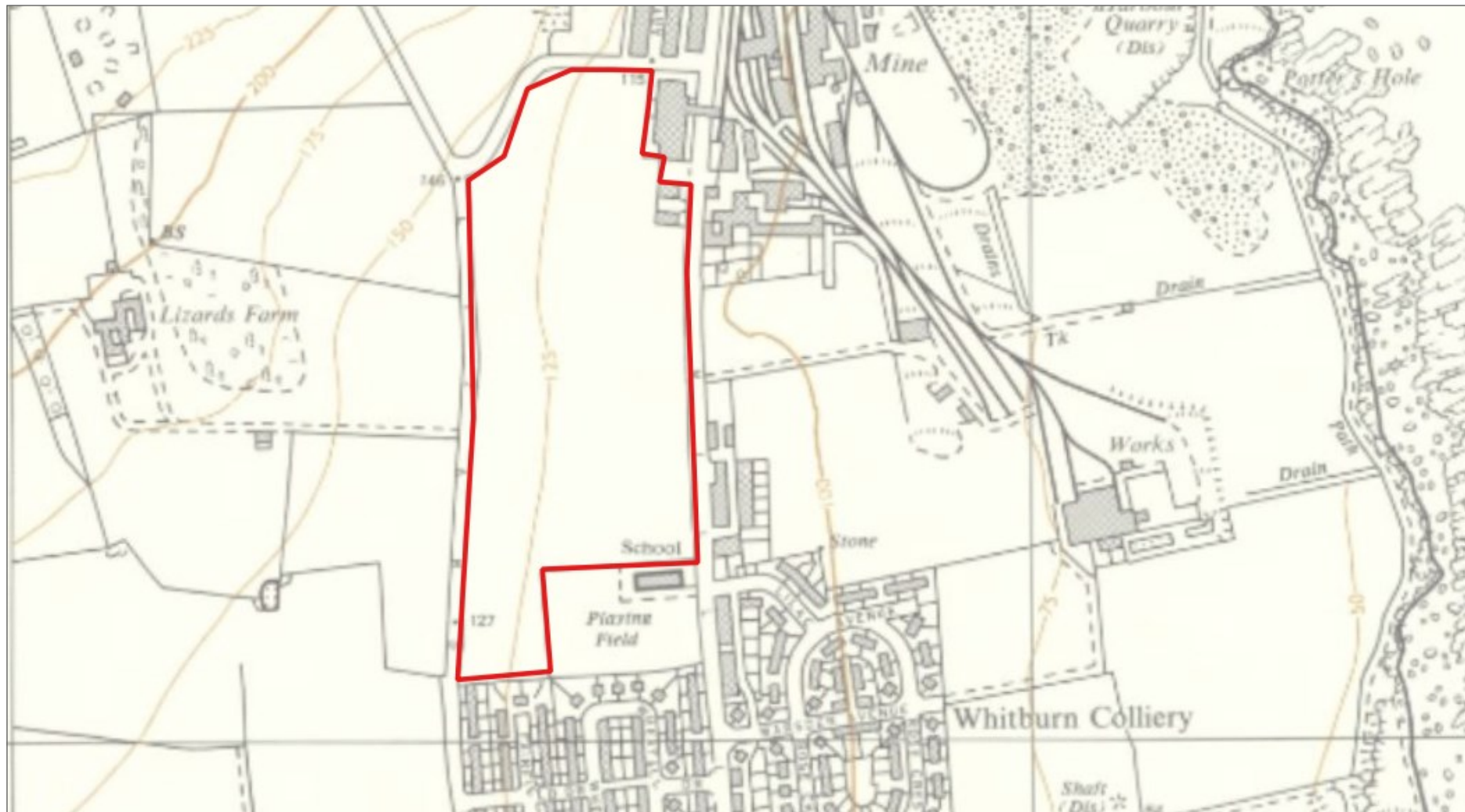


Figure 7: 1954 Ordnance Survey Map. Reproduced with the permission of the National Library of Scotland.

APPENDIX 4: Site Photographs



Photo 1 View to the north from the centre of the Site, in direction of the Scheduled Monument Area of Marsden Lime Kilns and the Listed Souter Lighthouse with associated buildings and wall



Photo 2 View to the southeast from the Site, in direction of the Listed Whitburn Mill



Photo 3 View to the northwest from the Site, in direction of the Scheduled Monument Area of Lizard Farm, Heavy Anti-Aircraft Battery



Photo 4 View southeast towards the Site from the Scheduled Monument Area of Lizard Farm, Heavy Anti-Aircraft Battery



Photo 5 View southeast towards the Site from the Scheduled Monument Area of Lizard Farm, Heavy Anti-Aircraft Battery

APPENDIX 5: Geophysical Survey

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
BWB Consulting Ltd

Land at Lizard Lane
Whitburn
South Tyneside

geophysical survey

report 6303
October 2025

Contents

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4.	Landuse, topography and geology	3
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Figures

Figure 1:	Site location
Figure 2:	Magnetometer survey (unfiltered data)
Figure 3:	Magnetometer survey (filtered data)
Figure 4:	Geophysical interpretation
Figure 5:	Archaeological interpretation

1. Summary

The project

- 1.1 This report presents the results of a geophysical survey conducted in advance of proposed development of land at Lizard Lane, Whitburn, South Tyneside. The works comprised 10.25ha of magnetometer survey.
- 1.2 The works were commissioned by BWB Consulting Ltd and conducted by Archaeological Services Durham University.

Results

- 1.3 Large concentrations of probable dumped material and ground disturbance have been identified, including an area of former colliery buildings.
- 1.4 Possible traces of former ridge and furrow cultivation have been detected.
- 1.5 Soil-filled features of uncertain age and origin have been detected.
- 1.6 An infilled former pond has been detected, as shown on historic OS editions.
- 1.7 A possible utility has been identified.
- 1.8 Relatively recent ploughing regimes and probable land drains have also been detected.

2. Project background

Location (Figure 1)

- 2.1 The site was located on land at Lizard Lane, Whitburn, South Tyneside (NGR centre: NZ 4057 6339). To the west was Lizard Lane, with farmland beyond; to the north was Kitchener Road, with residential properties and Marsden Quarry beyond; to the east was the A183 road, Mill Lane; and to the south was a housing estate and Marsden Primary School.
- 2.2 One survey of approximately 10.25ha was conducted in a single land parcel.

Development proposal

- 2.3 A residential development is proposed.

Objective

- 2.4 The aim of the survey was to assess the nature and extent of any sub-surface features of potential archaeological significance within the survey area, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the development.
- 2.5 The updated regional research framework *North-East Regional Research Framework for the Historic Environment* (NERRF 2.0) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation. In this instance, the scheme of works was designed to address the following research questions: Late Bronze Age and Iron Age, La3: How can we improve our understanding of late prehistoric landscapes in north-east England?; Later medieval, MD21: How can we better understand medieval field systems?

Methods statement

- 2.6 The surveys have been undertaken in accordance with instructions from the client, a method statement provided by Archaeological Services Durham University and national standards and guidance (below, 5.1).

Dates

- 2.7 Fieldwork was undertaken on 1st October 2025. This report was prepared for October 2025.

Personnel

- 2.8 Fieldwork and geophysical data processing was conducted by Richie Villis and Mark Woolston-Houshold. This report was prepared by Richie Villis, with illustrations by Janine Watson.

Archive/OASIS

- 2.9 The site code is **WLL25**, for **Whitburn Lizard Lane 2025**. The survey archive is held at Archaeological Services Durham University. Archaeological Services Durham University is registered with the **Online AccesS** to the **Index** of archaeological investigationS project (**OASIS**). The OASIS ID number for this project is **archaeol3-537445**.

Acknowledgements

- 2.10 Archaeological Services Durham University is grateful for the assistance of the landowners and tenants in facilitating this scheme of works.

3. Historical and archaeological background

- 3.1 A detailed archaeological desk-based assessment has been conducted for the proposed development (BWB 2025); the results of that assessment are summarised here.
- 3.2 There is evidence for prehistoric activity in the wider area, although this is mainly limited to findspots. No heritage assets are recorded within the site, however, this should not be taken to imply that archaeological remains were never present, so there is some potential for unrecorded prehistoric remains to be present. However, prolonged and intensive agricultural activity will probably have caused disturbance and truncated any archaeological horizon.
- 3.3 The site lies to the north of the medieval core of the village of Whitburn and was likely within an area of medieval common and agricultural land. Map regression has shown the site to have remained in agricultural use since at least the late 19th century. There is a high potential for medieval and post-medieval agricultural activity (ridge and furrow) to survive.
- 3.4 The site has moderate potential for remains relating to the post-medieval Hope House farmstead in the north-east corner, and 19th or 20th century remains relating to Whitburn Colliery which incorporated the earlier farmhouse.

4. Landuse, topography and geology

- 4.1 At the time of survey the site comprised a single field of improved arable land. It was bound by post and wire fencing, with steel security fencing to the school in the south-east. The A183 road to the east stood on a reinforced concrete bank where the ground dipped into a natural hollow in the north-eastern part of the site. Occasional geotechnical test pits had been excavated across the area.
- 4.2 The site occupied a generally gentle south-east-facing slope, with elevations from approximately 40m OD in the north-west to 33m in the south and south-east. A natural dip to a low point of approximately 29m OD was also present in the north-eastern part of the area.
- 4.3 The underlying solid geology of the area comprises Permian dolostone of the Roker Formation, which are overlain by Devensian glaciofluvial deposits of sand and gravel in the east and till in the west (BGS 2025).

5. Geophysical survey Standards

- 5.1 The survey and reporting were conducted in accordance with the Chartered Institute for Archaeologists (CIfA) *Standard and Guidance for archaeological geophysical survey* (2020); the *EAC Guidelines for the Use of Geophysics in Archaeology* (Schmidt

et al. 2016); and the Archaeology Data Service & Digital Antiquity *Geophysical Data in Archaeology: A Guide to Good Practice* (Schmidt 2013).

Technique selection

- 5.2 Geophysical survey enables the relatively rapid and non-invasive identification of sub-surface features of potential archaeological significance and can involve a suite of complementary techniques such as magnetometry, earth electrical resistance, ground-penetrating radar, electromagnetic survey and topsoil magnetic susceptibility survey. Some techniques are more suitable than others in particular situations, depending on site-specific factors including the nature of likely targets; depth of likely targets; ground conditions; proximity of buildings, fences or services and the local geology and drift.
- 5.3 In this instance it was considered likely that cut features such as ditches and pits could be present on the site, and that other types of feature such as trackways, wall foundations and fired structures (for example kilns and hearths) might also be present.
- 5.4 Given the anticipated nature and depth of targets, and the non-igneous geological environment of the study area, a magnetic technique, fluxgate gradiometry, was considered appropriate for detecting the types of feature mentioned above. This technique involves the use of magnetometers to detect and record anomalies in the vertical component of the Earth's magnetic field caused by variations in soil magnetic susceptibility or permanent magnetisation; such anomalies can reflect archaeological features.

Field methods

- 5.5 Magnetic gradient measurements were determined using a Sensys Magneto MX V3 multi-sensor magnetometer survey system towed by a quad-bike. Eight FGM650/3 fluxgate gradiometer sensors were mounted at 0.5m intervals, logging data at less than 0.08m intervals along traverses, providing high density data collection.
- 5.6 Data collection point locations were recorded using an integrated global navigation satellite system (GNSS) with real-time kinematic (RTK) correction typically providing 5-10mm accuracy and subsequently converted to the Ordnance Survey (OS) National Grid using the OSTN15 transformation.
- 5.7 Data were downloaded on site into a laptop computer for initial processing and storage and subsequently transferred to a desktop computer for processing, interpretation and archiving.

Data processing

- 5.8 Sensys MonMX, DLMGPS and MagnetoARCH software were used to record and display gradient and positional data, to create a matrix of gridded values at 0.2m by 0.2m intervals and to produce a continuous tone greyscale image of the raw data. TerraSurveyor software was then used to produce a continuous tone greyscale image of filtered data and trace plots. Trace plots of the data were examined but are not presented in this report. The greyscale images are presented in Figures 2 and 3; geophysical and archaeological interpretations are presented in Figures 4 and 5. In the greyscale images, positive magnetic anomalies are displayed as dark grey and

negative magnetic anomalies as light grey. Palette bars relate the greyscale intensities to anomaly values in nanoTesla.

5.9 The following basic processing functions have been applied to each dataset:

<i>clip</i>	clips data to specified maximum or minimum values; to eliminate large noise spikes; also generally makes statistical calculations more realistic
<i>de-spike</i>	locates and suppresses iron spikes in gradiometer data
<i>interpolate</i>	increases the number of data points in a survey to match sample and traverse intervals; in this instance the data have been interpolated to 0.1m x 0.1m intervals

5.10 The following filter has been applied to the magnetic data (Figure 3):

<i>low pass filter</i>	(applied with Gaussian weighting) to remove high frequency, small-scale spatial detail; for enhancing larger weak features and smoothing data
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Interpretation: anomaly types

5.11 A colour-coded geophysical interpretation plan is provided. Three types of magnetic anomaly have been distinguished in the data:

<i>positive magnetic</i>	regions of anomalously high or positive magnetic field gradient, which may be associated with high magnetic susceptibility soil-filled structures such as pits and ditches
<i>negative magnetic</i>	regions of anomalously low or negative magnetic field gradient, which may correspond to features of low magnetic susceptibility such as wall footings and other concentrations of sedimentary rock or voids
<i>dipolar magnetic</i>	paired positive-negative magnetic anomalies, which typically reflect ferrous or fired materials (including fences and utilities) and/or fired structures such as kilns or hearths

Interpretation: features

5.12 A colour-coded archaeological interpretation plan is provided. For ease of reference, anomaly numbers shown bold in the text below (eg **A**, **B**, etc) are also shown on the archaeological interpretation plan.

5.13 The geophysical data collected here area characterised by high concentrations of dipolar magnetic anomalies. Typically these reflect items of near-surface ferrous and/or fired debris, such as horseshoes and brick fragments, and in most cases have little or no archaeological significance. When present in high quantity these can also reflect areas of disturbed ground, including deliberately dumped material and manuring for land-improvement. Despite the widespread presence of these anomalies here, areas of higher concentration can also be distinguished in the data. Concentrations of more intense dipolar magnetic anomalies have been detected in

the north-west corner of the survey area (**A**) which almost certainly reflect relatively modern ground disturbance, including possible colliery waste. A relatively rectangular concentration detected in the north-east corner of the area (**B**) corresponds to the location of former colliery buildings shown on historic OS editions. Whilst there is no definitive evidence of structural remains evident in the data this almost certainly reflects a quantity of demolition material and other ground disturbance.

- 5.14 A large and intense dipolar magnetic anomaly has been detected in the east of the survey area (**C**). This broadly corresponds to a shallow hollow in the natural topography of the field, and it may reflect a collection of former colliery waste deliberately dumped to infill the ground. Three further intense magnetic anomalies, almost certainly reflecting ferrous items, have been detected to the south-west of this (**D**). These are regularly spaced, approximately 75m apart, and could possibly reflect ferrous components of a buried utility, although no evidence of the utility itself or associated trench have been detected.
- 5.15 Smaller, irregular concentrations of dipolar magnetic anomalies have been detected along the western boundary of the area, often associated with field entrances. A small concentration in the south-west of the area (**E**) corresponds to an in-filled pond shown on historic OS editions.
- 5.16 Occasional weak and diffuse linear and curvilinear positive magnetic anomalies (eg **F**) have been detected across the area. These could possibly represent anthropogenic features of uncertain age and origin.
- 5.17 Broadly north/south aligned, closely spaced, linear magnetic anomalies have been detected across the area; these almost certainly reflect relatively modern ploughing regimes and in the interests of clarity have been omitted from the geophysical interpretation plan. Perpendicular, border and more widely spaced, slightly curving anomalies almost certainly reflect older ploughing regimes, including possible former ridge and furrow cultivation. These older regimes are in the same orientation as older field systems shown on historic maps of the area.
- 5.18 Occasional straight and narrow, regularly arrayed anomalies have also been detected (eg **G**), these almost certainly reflect land drains.

6. Conclusions

- 6.1 Approximately 10.25ha of magnetometer survey was undertaken on land at Lizard Lane, Whitburn, South Tyneside prior to proposed residential development.
- 6.2 Large concentrations of probable dumped material and ground disturbance have been identified, including an area of former colliery buildings.
- 6.3 Possible traces of former ridge and furrow cultivation have been detected.
- 6.4 Soil-filled features of uncertain age and origin have been detected.
- 6.5 An infilled former pond has been detected, as shown on historic OS editions.
- 6.6 A possible utility has been identified.

- 6.7 Relatively recent ploughing regimes and probable land drains have also been detected.

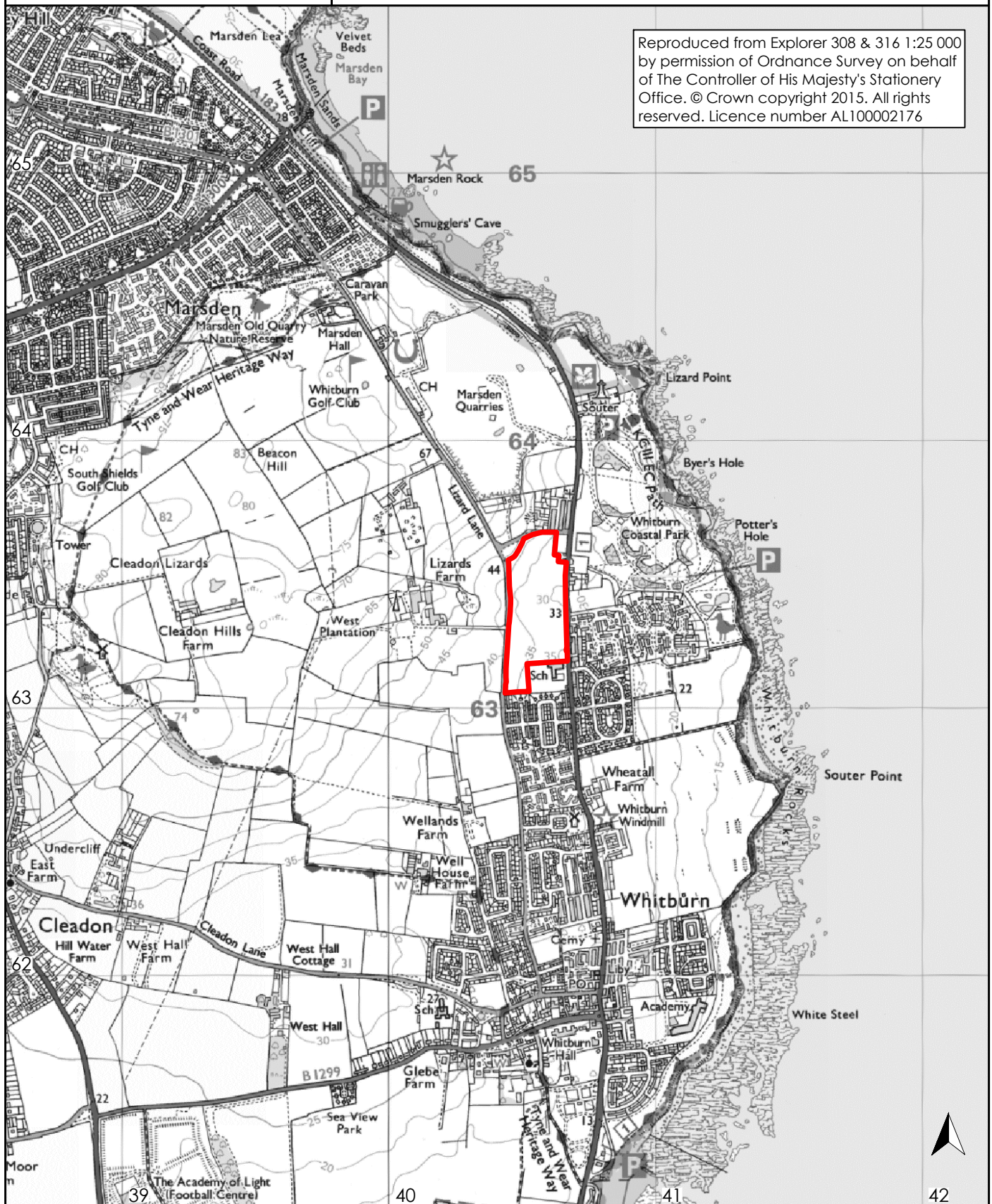
7. Sources

BWB 2025 *Lizard Lane, Whitburn, South Tyneside, Tyne and Wear: archaeology assessment*. Report **255481**, BWB Consulting
CIfA 2020 *Standard and Guidance for archaeological geophysical survey*. Chartered Institute for Archaeologists
Schmidt, A, 2013 *Geophysical Data in Archaeology: A Guide to Good Practice*. Archaeology Data Service & Digital Antiquity, Oxbow
Schmidt, A, Linford, P, Linford, N, David, A, Gaffney, C, Sarris, A & Fassbinder, J, 2016 *EAC Guidelines for the Use of Geophysics in Archaeology: Questions to Ask and Points to Consider*. EAC Guidelines **2**, Namur

Websites

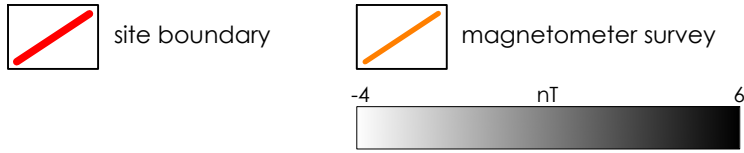
<https://researchframeworks.org/nerf/>
<https://geologyviewer.bgs.ac.uk/>

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site boundary

0 1km
scale 1:20 000 for A4 plot



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0 100m
scale 1:2000 for A3 plot

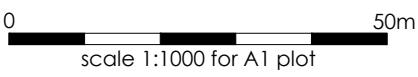
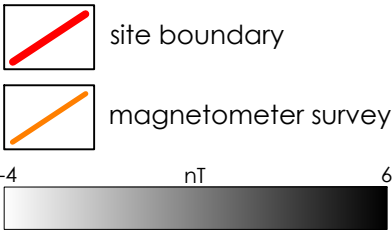
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Figure 2: Magnetometer survey (unfiltered data)



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Figure 3: Magnetometer survey (filtered data)



- site boundary
- magnetometer survey
- dipolar magnetic anomaly
- positive magnetic anomaly

0 50m
scale 1:1000 for A1 plot

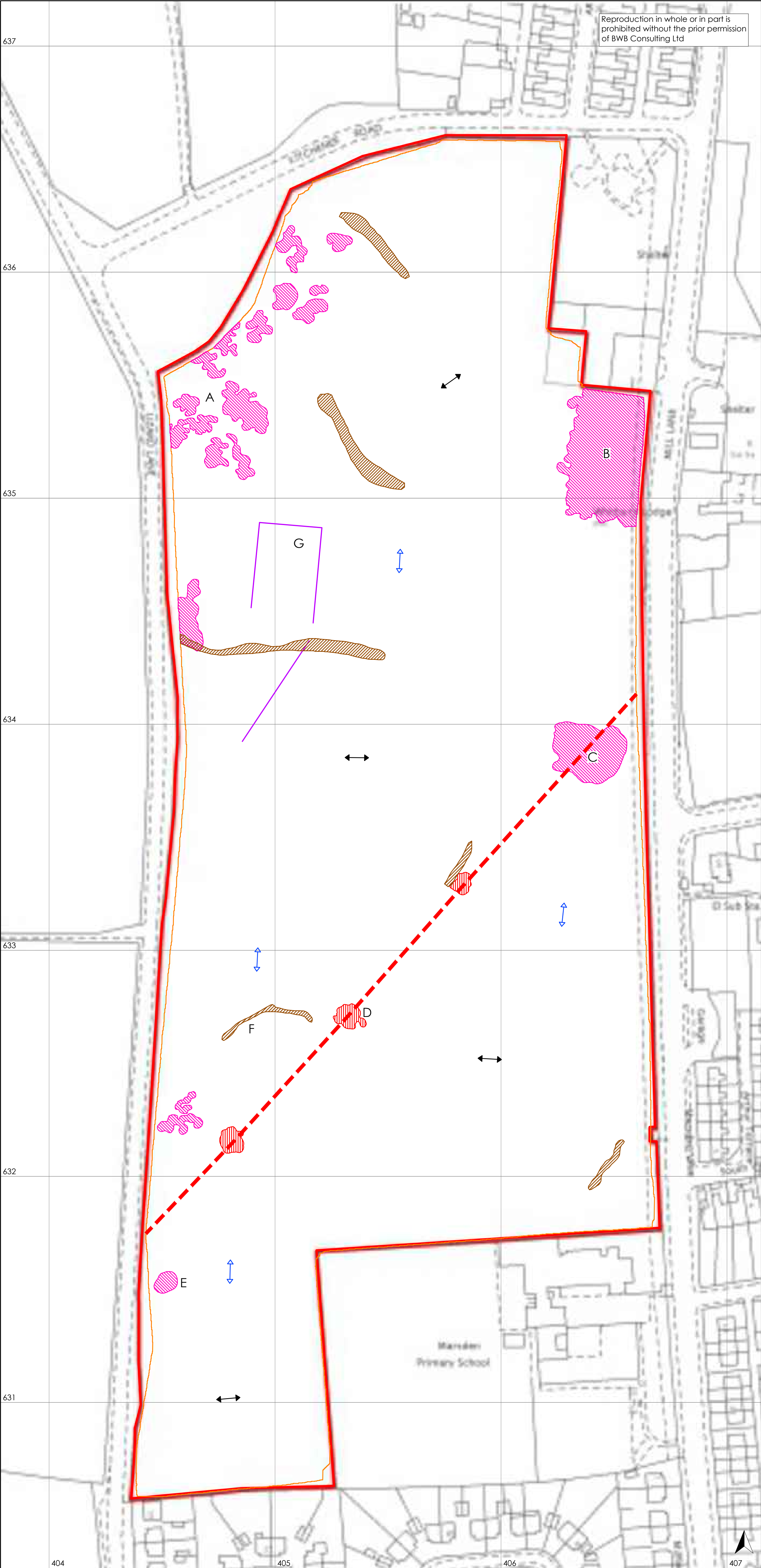
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Figure 4: Geophysical interpretation





- site boundary
- magnetometer survey
- possible soil-filled feature
- disturbed area
- ferrous object
- land drain
- possible utility
- possible ridge and furrow
- former ploughing

0 50m
scale 1:1000 for A1 plot

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Figure 5: Archaeological interpretation

