

ARCHAEOLOGICAL  
SERVICES  
DURHAM UNIVERSITY

on behalf of  
Durham County Council

Ridge and Furrow  
Community archaeology project  
County Durham, Teesside  
and Tyne and Wear

topographic survey

report 3109  
March 2013

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## **1. Summary**

### **The project**

- 1.1 This report presents the results of a community archaeology project. The project was undertaken in order to survey and record areas of ridge and furrow across the limestone areas of County Durham, Teesside and Tyne and Wear. It also aimed to train and educate volunteers in the techniques and methods of archaeological survey and recording.
- 1.2 The works were commissioned by the Archaeology Section of Durham County Council on behalf of the Limestone Landscape Partnership and were conducted by Archaeological Services Durham University.

### **Results**

- 1.3 The project surveyed and recorded a sample of the wealth of earthwork ridge and furrow remains extant within the study area. The archaeological work has provided an opportunity for members of local communities to learn about agricultural systems dating from the medieval period and later, in the ways the landscape has been altered and modified over time, and in the techniques of archaeological survey.
- 1.4 A guide to typology and dating methods, and draft management proposals, have been produced.



## 2. Project background and introduction

### Location (Figure 1)

- 2.1 There were nine sites where cultivation earthworks were surveyed across County Durham and Tyne and Wear. These were selected according to the preservation of the remains, accessibility to them, and to ensure a wide geographical coverage of the area.



Extract from Figure 1: Project location

- 2.2 The survey sites were: Ox Close Farm, Shadforth, County Durham (NGR centre: NZ 35142 40345); Boldon Flats, East Boldon, Tyne and Wear (NGR centre: NZ 37939 61673); West Deanery, South Church, County Durham (NGR centre: NZ 21320 28198); Eldon, County Durham (NGR centre: NZ 23149 27366); Sheraton, County Durham (NGR centre: NZ 44138 34921); Cleadon Hills Farm, Tyne and Wear (NGR centre: NZ 39295 63502); Backhouse Park, Sunderland, Tyne and Wear (NGR centre: NZ 39714 55608); Oakleaf Golf Course, School Aycliffe, County Durham (NGR centre: NZ 25927 24454); and Garmondsway, County Durham (NGR centre: NZ 34083 34785).

### Objective

- 2.3 The purpose of the project was to examine specified sources of information relating to ridge and furrow, followed by field surveys of selected examples with the aims of establishing a typology, dating guide and management plan which *inter alia* can be used to inform and target areas for inclusion in Natural England's Higher Level Stewardship scheme. The results of the project may also assist with biodiversity enhancement by helping to protect land which has been the least disturbed and/or improved.

### **Specification**

- 2.4 The works have been undertaken in accordance with a specification provided by the Durham County Council Archaeology Section (Appendix 3) following standard Archaeological Services procedures.

### **Dates**

- 2.5 Fieldwork was undertaken between 18th February and 12th March 2013. This report was prepared for March 2013.

### **Personnel**

- 2.6 The survey and recording was conducted by a volunteer team, directed by Catrin Jenkins. This report was prepared by Catrin Jenkins, with illustrations by David Graham and Janine Watson. The Project Manager was Peter Carne. Professors Chris Gerrard and Mick Aston acted as academic advisors to the project.

### **Volunteers**

- 2.7 The following volunteers participated in the fieldwork:  
Alaistair Adams, Tim Brown, Tony Metcalfe, Colin Turner, Lorraine Watkinson, and Benjamin Westwood.

### **Archive/OASIS**

- 2.8 The site code is **RFP13**, for **Ridge Furrow Project 2013**. The archive is currently held by Archaeological Services Durham University and will be transferred to the Bowes Museum in due course. 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 **archaeol3-146828**.

### **Acknowledgements**

- 2.9 Archaeological Services Durham University is grateful for the assistance of all of the landowners: Mr N.D. Brass of Ox Close Farm; Mr Alan Gregg and the Church Commissioners of Boldon Flats; Mr Jim Forster of West Deanery Farm; Mr Graham Dent of Eldon Bank Farm; Mr and Mrs Howell of Sheraton Farm; Mr F B Clegam of Cleadon Hills Farm; Mr David McGregor of Sunderland Council; Mr Lee Williams and Mr Andrew Bailey of Great Aycliffe Town Council; and Mr Paul Rutter of Garmondsway East Farm. Additional thanks are also due to Colin Turner for providing cartographic and historical information on several of the survey areas.

## **3. Method statement**

### **Survey**

- 3.1 The survey was conducted using a Leica Viva GS15 global navigation satellite system (GNSS), with real time kinematic (RTK) correction, typically providing locational accuracy of 10mm. The GNSS receiver was used to take points to define features at intervals appropriate to the earthworks being recorded.
- 3.2 The survey recorded the top and base of earthworks, breaks of slope as well as any apparent variations.
- 3.3 Profiles were recorded across the ridge and furrow to define the form of the earthworks.

- 3.4 All cultivation earthworks within the survey area were assigned a unique identifying number and recorded using *pro forma* ridge and furrow recording sheets. The records detailed landuse, date, relationships, truncation and measurements.
- 3.5 The overall state of the earthworks was recorded and graded as being in an optimum, stable or vulnerable condition. Any issues compromising the future preservation of the earthworks was recorded and mitigation was also suggested.

Condition	Description
Optimum	No issues with current state of earthworks which are maintained in the best condition possible
Stable	Earthworks in a state of preservation with issues which may affect their survival in the future
Vulnerable	Current state of earthworks is being damaged by one or more issues

- 3.6 The survey was supplemented by photography of features using monochrome 35mm stills, and digital photography. All detailed photographs included a metric scale with additional area photographs taken without scales.
- 3.7 The surveys were supplemented by the plotting of wider areas of ridge and furrow using *google* satellite images.

#### 4. Historical and archaeological background

- 4.1 Cultivation remains have been recorded in the North-East region dating from the Neolithic period, such as the cord rigg recorded at Simonbrun in Northumberland (Keys to the Past 2013). Ridge and furrow cultivation is formed by a plough which is capable of turning over soil. A plough is defined as comprising a ploughshare (cutting edge), a coulter (makes a vertical cut in advance of ploughshare) and a mould board. Ridge and furrow can date to any time after the introduction of such a plough (Taylor 1975, 78). However, the vast majority of ridge and furrow cultivation dates to the medieval and later periods.

##### Early medieval period (5th century to 11th century)

- 4.2 The layout and form of field systems varied a lot from area to area. It has been suggested that the layout of some early medieval field systems originated in the Roman period. For example Roman fields were short and rectangular and in areas where these have been identified medieval fields can be shorter and conform to the older boundaries (Taylor 1975, 72; English Heritage 2011, 5).
- 4.3 The rural landscape in this period in the region comprised of a few small villages and was dominated instead by small farmsteads, surrounded by agricultural land (County Durham Landscape Character Assessment 2008, 12-13).
- 4.4 The earliest recorded early medieval cultivation remains comprises narrow unevenly spaced ridges and furrows. Although this has not yet been conclusively identified within the North East remains are known from other parts of the British Isles. At Gwithian in Cornwall, ridge and furrow has been recorded that dates to the 9th or 10th century. At Hen Domen in Wales, the bailey of an 11th-century castle overlies ridge and furrow and at Bentley Grange ridge in Yorkshire, ridge and furrow has been identified that is truncated by coal pits of 12th-century date (Taylor 1975, 80).

### **The later medieval period (11th century to 1540)**

- 4.5 The system of villages established during the Saxon period became more structured during the middle ages and settlements expanded in the early part of the period; cultivation remains are recorded in previously unsettled upland area. Villages, especially those which were under monastic control, were re-organised in the 11th and 12th centuries. The study area was part of the palatinate of Durham, which had royal privileges and owned vast estates, including townships and desmesne farms (County Durham Landscape Character Assessment 2008, 12-13). Townships and property was also under the control of manorial estates.
- 4.6 Agricultural land was organised communally and divided administratively into townships. Meadows, pastures, woodland and wastes or 'moors' of rough grassland or heath would also be included in the township (*ibid*).
- 4.7 The common-field system comprised four elements. Initially arable land was divided into strips which were tenanted or owned by farmers who had a number of strips dispersed throughout the township. Following this both the strips and meadowland were grazed by the stock of the same farmer after harvesting and in fallow times and strict rules existed over what could be planted. Finally the number of animals or grazing stock on the pasture and waste was also controlled. The rules were organised at formal meetings (Taylor 1975, 71).
- 4.8 It has been suggested that County Durham as far north as Durham City comprised the northern limit of the zone that used the three field system. Further north may have been a transitional area, which either adopted the three field system or conformed to a border or Scottish agricultural model (Baker and Butlin 1973, 94). The greatest density of common fields is recorded in those areas that were best suited to arable farming including the Magnesian Limestone landscape of Durham and Tyne and Wear (*ibid*, 111).
- 4.9 Strips were grouped into furlongs which were then grouped into fields. These were contained within townships and would usually be farmed by a two or three year crop rotation that was followed with one year of fallow, with common grazing rights over the fallow at certain times (Hall 1993, 7-8). No two strips belonging to the same farmer would be together as farming was based on equality and communality (Hall 1982, 18).
- 4.10 The strips (lands) could be as long as 700m and as wide as 20m (English Heritage 2011, 5). An individual farm could comprise from 2 to 80 acres (with variation between villages) which was spread in strips throughout the townships, which commonly contained 10 and 30 farms (Baker and Butlin 1973, 139; Hall 1993, 7-8).
- 4.11 Strips were usually ploughed clockwise which caused ridging with two flat sides sloping from ridge to furrow. There are several reasons suggested for the ridging, which include: the need to aid natural drainage (as ridges are aligned around the steepest gradient and often at right angles to contours and streams) (Taylor 1975, 90); as a boundary delineation (Hall 1993, 7-8); to facilitate specific planting regimes which required raised ridges (Taylor 1975, 79); and to increase land area especially in marginal areas such as hillsides and where soil quality was poor. However, ridge and furrow also appears on well-drained chalk downlands and limestone hills. It has been suggested that this may be because ploughing methodology was continued in most areas due to familiarity (*ibid*, 90).

- 4.12 Clockwise ploughing rotation probably started in the centre of the strip and finished at the outside to form the furrow. This furrow may also have been enhanced by digging. In fallow times an anticlockwise rotation was used to move soil and maintain a low ridge. In some extant field systems the ends of strips are curved so where a strip exists the shape is a reverse S. This probably resulted from a tendency to plough out to the left when turning to the right and also possibly from a right handed mould board (Hall 1993, 7-8).
- 4.13 The need to drag a large plough successfully along the ridges would require six or eight oxen, which were yoked in pairs to the plough. The reverse S would allow the team to start ploughing by standing on a narrow bank of soil (headland) and would plough at an angle then straighten out before curving again at the end of the ridge so as not to end on a right angle and thus avoid damage to the adjacent strips (Taylor 1975, 82).
- 4.14 A shallow curving C shape is also characteristic of medieval ploughing, probably due to the same methodology. More recent ridge and furrow tends to have ridges of usually less than 5m in width (English Heritage 2011, 5).
- 4.15 Ridge and furrow ploughing methods create numerous features which are characteristic of medieval ploughing. The movement of the plough moved soil forwards along the direction of motion (as well as from left to right forming the ridge). At the end of the strip the plough was lifted out and turned and soil was deposited into what is called a head (Hall 1983, 6). Heads are first recorded in the 13th century. Two furlongs lying in the same orientation would have a boundary marked by a double row of heads. Where two furlongs met at right angles the heads of the strips in one furlong were piled on the first strip of the next. These heads were ploughed out and smoothed over as part of the first strip. This was called a headland (Hall 1994, 95).
- 4.16 Strip lynchets were formed by ploughing land on the side of a hill and creating terracing. Several examples exist which overlie Roman remains, such as over the civilian settlement at Housesteads in Northumberland and so are probably medieval or later. They tend to have rounded ends where the plough would have been turned (Taylor 1975, 91).
- 4.17 Fallow land, meadow and waste was also organised by communal agreements. An agreed number of animals was allowed per farm. This regulation was recorded from an early date such as at Cold Ashby. It is recorded that in 1231, the Abbot and lord of the manor agreed that for each of the township's 60 farms, there should be four beasts (oxen, cows, etc...), four pigs and 24 sheep (Hall 1982, 19).
- 4.18 Meadow was also divided into strips or dales which have been recorded in historical documents. These land divisions may have been temporary boundaries such as fences or shallow ditches. Relatively large areas of meadow are known from surveys and inventories. Animals were an important sector of the rural economy. Rural flats were utilised as meadows both within and without the common fields (Baker and Butlin 1973, 134).
- 4.19 Historical records of pre-12th century date mostly describe villages in terms of their economic status or the value of the land within townships. Land was recorded in units associated with ploughable arable land. It has been suggested that the amount

of land eight oxen could plough in a year would be a ploughland of 120 acres, made up of at least eight oxgangs (two oxgangs is equal to one bovate), each of fifteen acres. However, some of the land would be fallow. A farmer paid for all basic rents, renders and work service in terms of oxgangs, the rateable value of a farm (Roberts 1977, 34-35).

- 4.20 Roberts (1977, 40-41) suggests that the planned villages of Durham were laid out partially in relation the economic value of each farm, and the ordering of the strips. A village was laid out proportionally and also in a clockwise order, so the strips of each farm followed each other in toft order. The clockwise order possibly relates to the motion of the sun rising in the east and setting in the west, long considered a lucky or 'sunwise' order. The toft frontages were also laid out proportionally in terms of the economic value of each farm. This would mean that a one bovate farm would have one unit of frontage and a two bovate farm two units of frontage and so on. When strips were laid out in each furlong, their width was given the same ratio. Along with the tofts and arable lands went meadow rights, grazing rights and so on, which were also organised proportionally. Traces of this organisation are found at Byers Green and Kirk Merrington which may be pre-1200 in date, and possibly reflecting existing social conditions when villages were planned (*ibid*).
- 4.21 Land within townships owned by manorial or monastic estates was mostly farmed by customary tenants. These farms appear to have derived from the bondage holdings into which many medieval *vills* and their lands were divided. Farmers were less often freeholders, though their farms were interspersed alongside the customary tenants, (Baker and Butlin 1973, 139).
- 4.22 In the later medieval period from around the 14th century there was a change in agricultural practice. Roberts (1977, 35) suggests village shrinkage can be related to farm amalgamation over time rather than physical desertion of property. Pressure for the enclosure of arable land grew from about 1450 onwards as pasture land became profitable due to the increasing demand for wool and the pressure to enclose land. By the 13th century demand for arable land was at its height but various changes in the 14th century changed this, the decrease in population following the black death meaning there fewer people to farm the land and many areas of upland where demands for land were high prior to the 14th century have not been farmed since.
- 4.23 The medieval population was at its height at the start of the 14th century. Following this there was a drastic population decline in part due to disease and economic factors, so by the start of the 15th century there was a deficit in people to farm the land. This created changes in the agricultural and social organisation of rural land. The farm workforce was more valuable and incentives were offered to attract peasants to farm land. The results were a wealthier peasant population and the contraction of agricultural land, with marginal areas abandoned in favour of quality agricultural land (Hall 1982, 35)

#### **The post-medieval period (1541 to 1899)**

- 4.24 The management of arable land by the three field system remained widespread in Durham in the 16th, 17th and 18th centuries. Most of these common arable fields were located in the eastern and southern parts of the county (Baker and Butlin 1973, 127). Historical observations by travellers and topographers in the 17th century in

east and south of Durham describe the majority of arable land being farmed as common fields (*ibid*, 130).

- 4.25 Further evidence for the three field system exists in the Durham enclosures of the 17th century, such as the enclosure maps of Corn Pool Field, Millfield, Toft and Down Hill Field in East and West Boldon dating to c.1658, and East Field, West Field, and South Field in Whitburn in 1718 (Baker and Butlin 1973, 127-9).
- 4.26 The 17th and early 18th century marked a further change in the social organisation and agricultural management of the rural landscape. This was caused by a population increase, and industrial development produced an agricultural revolution. The agricultural changes included leaving arable land to grass for a number of years to rest, and the ploughing up pasture land for arable. New crops were introduced such as carrots, turnips and clover. These enabled greater stock numbers, especially sheep, which increased manure. This in turn created a more flexible crop rotation and higher yields. New implements, such as drilling machines and drainage increased the arable production of the land. These changes began to be seen in the commencement of piecemeal enclosure of common land (Taylor 1975, 109).
- 4.27 Forested land which had existed into the 17th century was turned over to agriculture for the first time (*ibid*, 127).
- 4.28 Enclosure of common land had begun in the early medieval period of common arable, meadow and pasture, to enclose stock areas close to villages or settlements (Hall 1982, 38). The amount of land enclosed during or prior to the 16th, 17th and 18th centuries varied greatly (Baker and Butlin 1973, 136). In Durham and Northumberland enclosure was widespread in the 17th century (*ibid*, 98). Examples of enclosure by agreement include: North, South, East townfields and the Oxclose in Middridge in 1638; Hither, Middle and Far townfields in Bishop Auckland in 1651; Corn pool field, Millfield, Toft and Downhill field in East and West Boldon around 1658. There are also other examples in the area of enclosure of the three field system which may not have been adhered to as strictly (*ibid*, 129).
- 4.29 The progress of the coal mining industry further influenced the enclosure of land and modification of the medieval townships (*ibid*, 131).
- 4.30 Parliamentary enclosure had begun on a small scale in the region before 1750 and by the late 18th and early 19th centuries most of the common fields of Durham and Northumberland had vanished (Roberts 1977, 34-35). The surviving common fields were largely located in marginal areas, indicating a variation between large-scale farming in the lowlands and smaller-scale cultivation in upland areas (Baker and Butlin 1973, 110).
- 4.31 Ridge and furrow cultivation continued into the post-medieval period and modification of earlier cultivation remains was common. However by the 19th century and the advent of steam power and steam ploughing the form of the ridge and furrow altered. Steam ploughing is characterised by straight and narrow ridges which are usually parallel to post-enclosure field boundaries (Hall 1994, 98).



- 4.32 By the end of the 19th century the medieval character of the rural landscape had been virtually removed in Durham and Northumberland. The arable land of the area has been largely shaped by industrialisation and urbanisation in the 19th and 20th centuries (Baker and Butlin 1973, 93).

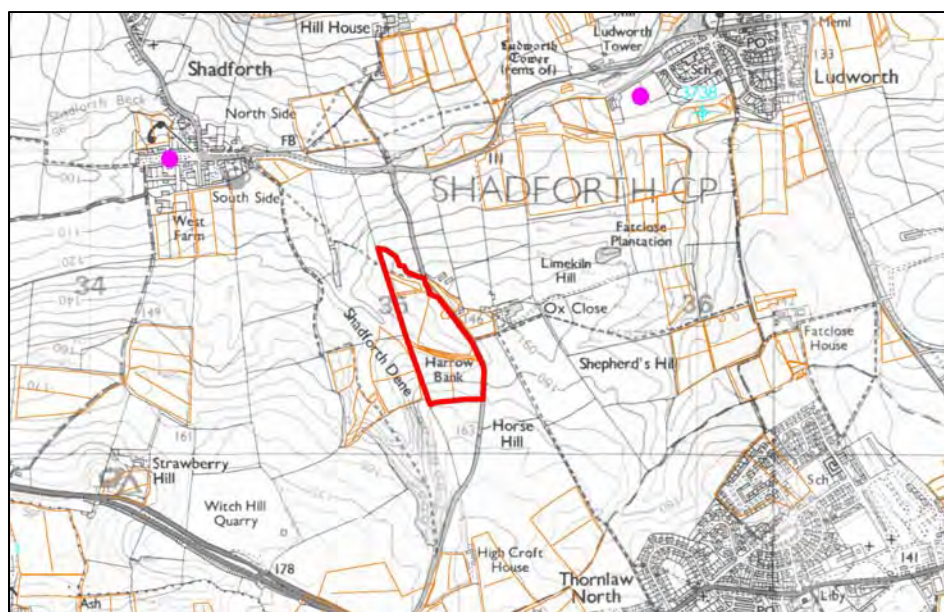
### **The modern period (1900 to present)**

- 4.33 A depression in farming took place between 1870 and 1914 which stopped the expansion of agricultural land. Indeed some enclosure of common fields continued to take place into the 20th century. However, following the depression further agricultural changes took place to arable farming. This led to increases in field sizes, and the removal of hedgerows, and trees (County Durham Landscape Character Assessment 2008, 15).
- 4.34 During the Second World War the need to produce further foodstuffs and to be self-sufficient meant that many marginal arable areas and former pasture was ploughed up. During this time some relict cultivation remains were lost and further areas of modern ridge and furrow were created (Ged Lawson *pers. comm*).

## **5. Survey Area 1: Ox Close Farm**

### **Location (Figure 2)**

- 5.1 Ox Close Farm (NGR centre: NZ 35142 40345) is located in eastern County Durham, to the south-east of Shadforth and to the north of the A181.



Extract from Figure 2: Survey Area 1 location, Ox Close Farm

### **Landuse, topography and geology**

- 5.2 The survey area covered some 6.7 hectares in two fields across the road to the west of the farm buildings. The fields are separated by a stream which runs from the Shadforth Dene to the east. At the time of the survey the land comprised pasture fields bounded by fences and hedgerows



- 5.3 The topography of the site is generally sloping. From 135m OD in the north of the survey area the land descends to 130m OD between the north and south fields along the stream bed, and then rises to 163m OD in the southern part of the area.
- 5.4 The underlying solid geology of the area comprises Permian period dolostone of the Raisby Formation, which is overlain by Devensian Diamicton till (British Geological Survey 2013).

### **Designations**

- 5.5 The land is currently Entry Level plus Higher Level Environmental Stewardship. The field usually contains sheep and several sheep feeders and the sites of sheep feeders are visible in the fields. The ridge and furrow has also been transcribed and recorded in 'An Archaeological Assessment of County Durham: The Aggregate Producing Areas' (Hewitt *et al.* 2011, 278, 281). The Historic Landscape Character assessment defines the northern ridge and furrow as post-medieval or medieval and the two southern areas of ridge and furrow as post-medieval.

### **Historical and archaeological background**

- 5.6 The earliest recorded historic settlement in the area is at Shadforth, some 500m to the north-west of Ox Close, where a 7th-century Saxon settlement is known. The site of the present village of Shadforth was settled around 1080 and is recorded in 1183 in Boldon Buke as *Shaldeford* (Keys to the Past 2013). The name is Old English in origin and probably meant 'shallow ford' (Watts 2002, 110).
- 5.7 A further medieval settlement is just over 1km to the north-east of the survey site at Ludworth. The village was recorded around 1160 as *Ludewrth*, which possibly comes from the Old English personal name *Luda* and 'worth' meaning enclosure (*ibid*, 74). In the early 15th century the manor at Ludworth was held by the De Ludworths and then passed to the Holden family in 1411. The Holdens are believed to have built a pele tower around this time, the ruins of which are a Grade II Listed Building. The village was deserted by about 1450 and no trace of it remains (Keys to the Past 2013).
- 5.8 There are several ridge and furrow sites in the surrounding area. Around Ludworth are cultivation remains probably associated with the medieval settlement. At Moor Crescent, just to the south of Ludworth, ridge and furrow (DUR HER 3738) earthworks of probable medieval date are recorded. Also in Ludworth ridge and furrow earthworks exist to the north of Margaret Street and to the east of the village. These cultivation remains measure between 4m and 4.5m from crown to crown suggesting a medieval or post-medieval date. Levelled ridge and furrow of uncertain date has been recorded some 2.5 km to the east of Ox Close at Crossgate Moor (DUR HER 6634) and at Harehills Moor (DUR HER 6651). The Tithe map of Shadforth of 1838 records the 'Long Riggs' field name (DUR HER 6661) suggesting medieval cultivation. Also to the east of Shadforth, at Paradise Farm, ridge and furrow earthworks exist which measure between 4.5m and 5m from crown to crown, indicating a medieval or post-medieval date.
- 5.9 The Ox Close place-name may indicate the history of the land with reference to Oxen, and the term 'close' coming from the Latin *clausum* meaning enclosure. The farm is recorded on the 1st edition Ordnance Survey map of 1857 surrounded by a plantation and labelled as Ox Close. The survey fields are labelled as Harrow Bank,

again suggesting cultivation of the land. Whinny Banks and the Shadforth Dene are to the west. Whinny Banks are depicted as heathland, and Watts (2002, 140) suggests that Whinny derives from the Middle English meaning overgrown with gorse. The area was only recently cleared of gorse (N.D. Brass *pers. comm.*) and ridge and furrow is visible on satellite images of Whinny Bank. This is oriented east to west and north-east to south-west and spaced between 5.7m and 10m from crown to crown, possibly indicating broad rigg medieval ploughing.

- 5.10 A field boundary is depicted in the north field on the 1st edition map, where the earthwork ridge and furrow changes direction. The map also depicts Low Croft House just to the north of the field boundary and the ruins of this building were observed during the survey. There were quarries to the north of Low Croft House, and to the east of Ox Close farm is Limekiln Hill, suggesting a small-scale industry. By the end of the 19th century these quarries were disused (2nd edition Ordnance Survey map of 1897).
- 5.11 Later Ordnance survey mapping records the removal of the field boundary in the north field by the 1920s and the abandonment of Low Croft House between the 1950s and 1960s.

#### **Survey results (Figures 3-4)**

- 5.12 There were three areas of ridge and furrow recorded during the survey. In the northern part of the survey, an area of 0.5 hectares of ridge and furrow [F2] was recorded, which had probably been truncated to the north-west. It is oriented north-west to south-east and measures up to 100m long, between 5m to 7m wide, and 0.5m to 1m high. The ridges are roughly spaced 7m from crown to crown and are straight in form.
- 5.13 Directly to the south of F2, an area of 3.28 hectares of ridge and furrow [F1] was surveyed. It is aligned north-north-west to south-south-east and measures up to 163m long, 4m wide and 0.4m high. The ridges are evenly spaced 4m from crown to crown and are relatively straight in form.
- 5.14 In the southern part of the survey area 2.93 hectares of ridge and furrow [F3] was recorded. This is oriented north to south and measures 175m long, 5m wide and 0.3m high. The ridges were evenly spaced 5m from crown to crown and are slightly curved along the eastern side of the area.

#### **Earthwork condition and mitigation**

- 5.15 At the time of the survey the overall condition of the surveyed earthworks was stable. This is due to pasture cultivation and land management. However, in areas where animals collected, such as around feeders and gates, the earthworks were subject to moderate damage. This damage could be limited in future through stock management, including the relocation of feeders and livestock focal points, and existing damage could be mitigated by reseeding damaged areas.

#### **Conclusion**

- 5.16 The place-name evidence and the form of the ridge and furrow is indicative of a medieval or post-medieval date. The name of Oxclose may be also suggestive of an area of meadow associated with a medieval township. However, for this to be

definitive further examination of cartographic and documentary evidence needs to be undertaken.



Extract from Figure 3: Topographic survey of Area 1, Ox Close Farm

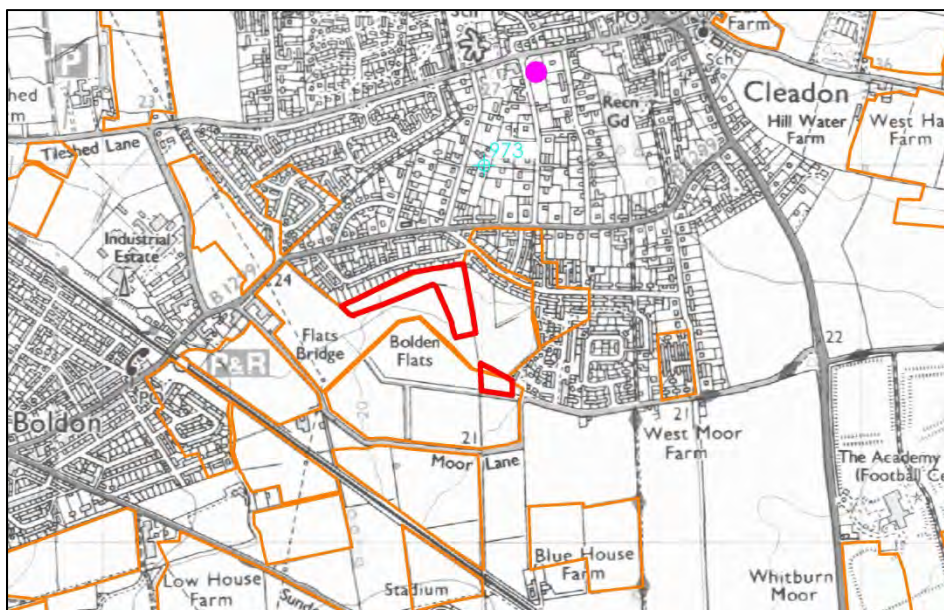
## 6. Survey Area 2: Boldon Flats

### Location (Figure 5)

- 6.1 Boldon Flats (NGR centre: NZ 37939 61673) is located to the east of East Boldon and to the south of Cleadon in Tyne and Wear. The survey area extended northwards from Moor Lane to south of Bywell Road.

### Landuse, topography and geology

- 6.2 The survey area covered approximately 2.54 hectares. The land is currently under rough pasture with seasonal flooding. Drainage ditches, field boundary banks, hedgerows and fencing are present on the site, which is bounded by wooden and metal fencing. Horses are kept in the south-eastern field
- 6.3 The topography of the area is flat with an average elevation of between 19m and 21m OD. The centre of the Flats is the lowest point which was entirely under water at the time of the survey.
- 6.4 The underlying solid geology of the area comprises Permian Period dolostone of the Raisby Formation, which is overlain by Quaternary period Clay (British Geological Survey 2013).



Extract from Figure 5: Survey Area 2 location, Boldon Flats

### Designations

- 6.5 Boldon Flats is a nature reserve, which is seasonally flooded and attracts much birdlife. The north-eastern corner of the site is designated as a Site of Special Scientific Interest (SSSI). The ridge and furrow earthworks are recorded on the Tyne and Wear HER (T&W HER 974) and the National Monument record (NMR 1403331). The Historic Landscape Character Assessment doesn't assign a date to the ridge and furrow. The area is within the 'North East Region Theme' for Higher Level Stewardship, which allows farmers and land managers, who may be moving from expiring schemes, or those with new Higher Level Stewardship applications to meet theme priorities.

### Historical and archaeological background

- 6.6 The earliest documented evidence for historic activity in the area is a rock cut tomb found in East Boldon which was associated with a brooch of 6th or 7th century date (T&W HER 885; NMR 26582). The settlement at Boldon was first documented in 1170 as *Boldun* with the name originating from 'bold' or 'botl' meaning a building and 'dun' meaning hill. The common fields of East and West Boldon, which were enclosed in 1658, were farmed by a three or more field system.
- 6.7 The medieval settlement at Cleadon just to the north of the survey site is recorded in Boldon Buke (1183) and also in Bishop Hatfield's survey of his possessions in 1382. In a survey of 1647 Cleadon is listed with Whitburn to the east (T&W HER 963). The common fields of Cleadon lay to the north and north-east of the village in areas called North Field and Cleadon Lizards. The names are recorded on the 1st edition Ordnance Survey map of 1857. Further cultivation remains are to the east of the village either side of Cleadon Lane in East Field as well as on Boldon Flats, which is called Cleadon Moor of the 1st edition Ordnance Survey map (T&W HER 973).
- 6.8 A further medieval village is known at Fullwell and was located some 800m to the west of the survey area. It is first recorded in 1204, the date of St John's confirmation of the possessions of Durham. The *vill* appears in a rental document of 1345-6 when it contained seven tofts and two cottages. Historic mapping suggests

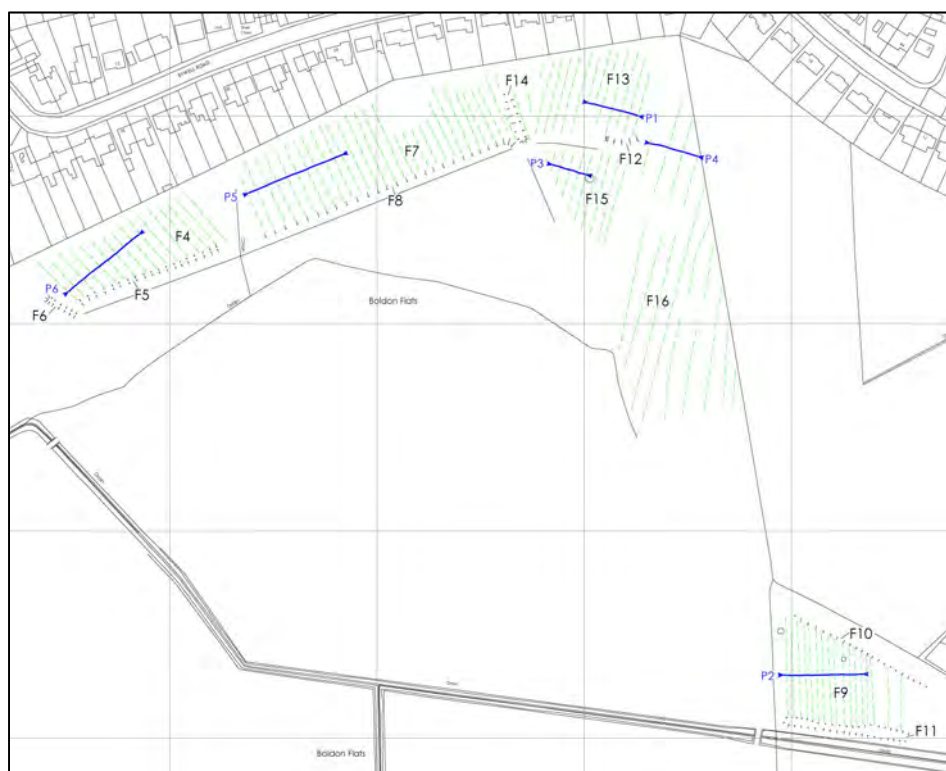


the village had been of a two row plan with a green, though this had probably shrunk by the late 18th century (HER 48).

- 6.9 In 1866 the first colliery was sunk in the area and coal production started in 1869. It is from this date that the area expanded and settlement extended into former agricultural areas. Boldon Flats was probably not settled due to the seasonal flooding of the area.

### Survey results (Figures 6-7)

- 6.10 The survey area covered approximately 6.44 hectares, which probably formed at least three fields. However, the ridge and furrow has been truncated by residential housing and divided up by later field boundaries. The cultivation remains include ridge and furrow, headlands, and banks. Due to the very wet and waterlogged nature of the area only dry parts were able to be surveyed and further extensive ridge and furrow continues to the east, west and south of the survey area.



*Extract from Figure 6: Topographic survey of Area 2, Boldon Flats*

- 6.11 On the western side of the survey area is a segmented bank [F6]. The bank is 15m+ long, 4m wide and 0.6m high. It is oriented north-west to south-east and continues following a small break to the south-east. There is ridge and furrow to the east and west of the bank, though to the west it was very difficult to define on the ground. The ridge and furrow to the east was surveyed, though bank [F6] appeared to be a later boundary delineation and not associated with the cultivation remains. Ridge and furrow [F4] to the east is oriented north-west to south-east and measures 32m long, with 4m wide and 0.2m high ridges. The ridges were evenly spaced up to 5.5m from crown to crown and were straight in form. A possible headland [F5] was recorded along the southern extent of ridge and furrow [F4]. It is oriented east-south-east to west-north-west and measures 72m long, 4m wide and 0.3m high.

- 6.12 The next section of ridge and furrow [F7] was probably associated with F4 but has been separated by a later ditch and line of trees. Ridge and furrow [F7] is oriented north-north-west to south-south-east and measures 38m long, with 3.9m to 4.5m wide and 0.2m high ridges. Ridges were roughly spaced between 4.5m and 5.5m from crown to crown. A probable headland [F8] was recorded along the south extent of the ridge and furrow. This was 129m long, 4m wide and 0.2m high.
- 6.13 A broad bank [F14] defines the eastern extent of ridge and furrow [F7]. The bank is aligned north-north-west to south-south-east and measures 28m long, 6m wide and 0.2m high. The line of the bank is continued to the south-south-east by a line of trees and the boundary itself defines a change in the direction of the ridge and furrow indicating that the boundary is contemporary to the cultivation remains. To the east of bank F14 is ridge and furrow [F13], which is oriented north-east to south-west. The ridges measure 46m long, 3.5m wide and was 0.2m high. The ridges are evenly spaced 3.5m from crown to crown and are straight in form. A bank [F12] overlies the ridge and furrow. The curved bank measures 31m long, 4.5m wide and 0.7m high. The bank was probably created as upcast from a ditch, possibly for drainage rather than definition of a boundary.
- 6.14 A further field of ridge and furrow [F15] was recorded to the south of ridge and furrow [F13]. This was likely to be a continuation of F15 though a later boundary bank and hedgerow divides the cultivation remains. It is oriented north-east to south-west and ridges measure 44m long, up to 6m wide, and 0.1m to 0.2m high. The ridges are roughly spaced 3.5m apart and are straight in form.
- 6.15 To the east of [F15] and [F13] is further ridge and furrow [F16], which was oriented north-east to south-west. Ridges measured 44m long, up to 6m wide and 0.1m to 0.2m high. They are straight in form and evenly spaced 6m from crown to crown.
- 6.16 At the eastern extent of the survey area, a further area of ridge and furrow [F9] was recorded, which was not as well preserved. The ridge and furrow is aligned north to south and measures 47m long, and ridges are 3.5m wide and 0.2m high. The ridges are evenly spaced 3.5m apart and straight in form. Two banks were recorded to the north and south of the ridge and furrow, which was oriented north to south. The northern bank [10] is aligned north-west to south-east and measures 80m long, 7.5m wide and 0.15m high. The bank may have been a headland. The southern bank [F11] is oriented east to west and measures 76m long, 4m to 5.5m wide and 0.15m high. It was probably formed as upcast when the culvert to the south of it was dug or cleaned out.

#### **Earthwork condition and mitigation**

- 6.17 At the time of the survey the earthworks were in a vulnerable condition with several issues recorded. Most detrimental is the seasonal flooding which is eroding the earthworks as well as truncation by associated drainage channels. Future flood damage could be limited by maintaining existing drainage channels. Refuse has been dumped on the earthworks in the eastern part of the area. The visual effect of this could be mitigated by removing it, with greater security of access possibly preventing reoccurrence. In the south-eastern field there has been moderate erosion around animal focal points such as feeders and gateways. This damage could be limited in future through stock management, including the relocation of feeders

and livestock focal points, and existing damage could be mitigated by reseeding damaged areas.

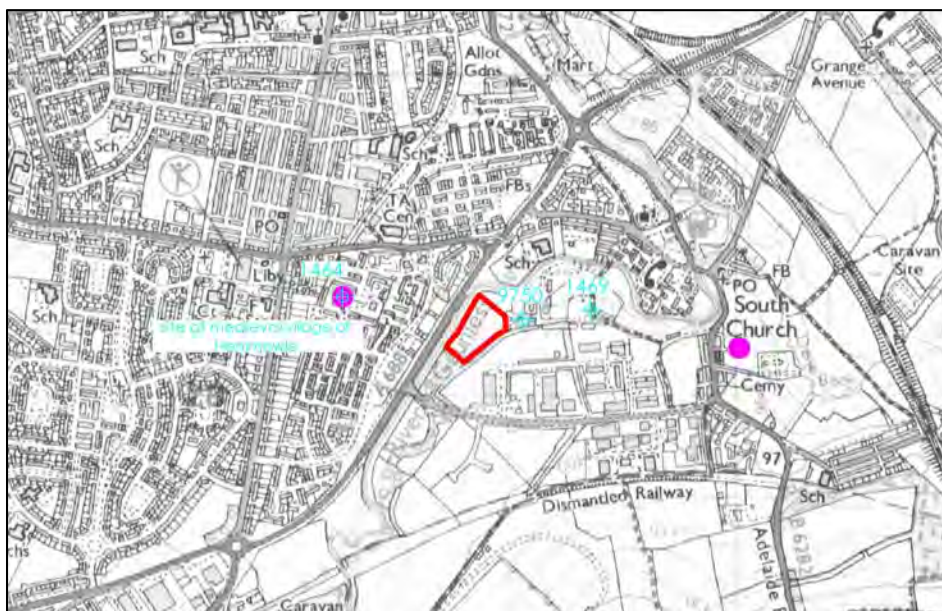
### Conclusion

- 6.18 The cultivation remains may be associated with the common fields of Cleadon or the medieval settlements of Boldon or Fulwell. The narrow ridge and furrow suggests that the cultivation methods may have continued into the post-medieval period on the common fields. The later field boundaries overlying the cultivation remains may date from enclosure around 1658. However, for this to be definitive further examination of cartographic and documentary evidence needs to be undertaken.

## 7. Survey Area 3: West Deanery Farm

### Location (Figure 8)

- 7.1 West Deanery Farm (NGR centre: NZ 21320 28198) is located to the east of the A688 and to the south-west of South Church. The survey area covered a single field to the south-west of West Deanery Farm.



Extract from Figure 8: Survey Area 3 location, West Deanery Farm

### Landuse, topography and geology

- 7.2 The survey area covered approximately 1.33 hectares. The land is currently under pasture and the field is defined by wooden fencing to the east and hedgerows to the north and west. There is an area of probable former quarrying at the south end of the field. Cattle are periodically kept in the field.
- 7.3 The topography of the field is generally flat with a sharp slope down to the River Gaunless along the western edge of the field. The land descends from 94.96m OD to 91.79m OD alongside the river.
- 7.4 The solid bedrock geology of the site comprises mudstone, siltstone and sandstone of the Pennine middle coal measures formation. The overlying drift geology comprises Devensian Diamicton till (British Geological Survey 2013).

## **Designations**

- 7.5 The West Deanery ridge and furrow site is not recorded with a County Durham HER number. The ridge and furrow has also been transcribed and recorded in 'An Archaeological Assessment of County Durham: The Aggregate Producing Areas' (Hewitt *et al.* 2011, 244). The site is not designated but it is within the 'North East Region Theme' for Higher Level Stewardship.

## **Historical and archaeological background**

- 7.6 The earliest evidence for historic settlement in the area is the village of Auckland St. Andrew, or South Church, on the River Gaunless, where it is crossed by a one-arched stone bridge. The Church of St Andrew is probably Anglo-Saxon in origin and contains Anglo-Saxon stone carvings. These were found in 1891 during building work on the church and probably date to the late 8th or early 9th century. There are also parts of a grave cover and grave stone of similar date. The College of Priests (HER 1469) who were based at St Andrew's church is some 300m to the south-west at East Deanery Farm. It was built in the 13th century and was altered in the 14th century. Excavations in 1980 found medieval wall foundations to the south of the west range of East Deanery Farm (DUR HER 6886).
- 7.7 The deserted medieval village of Henknowle (HER 1464), was recorded in historical documents approximately 300m to the west of the survey site. No remains of the village can be seen but cropmarks of the site are apparent on aerial photographs.
- 7.8 An archaeological evaluation conducted near the survey site in 2007 did not record any archaeological features. However, a single piece of medieval moulded stone, possibly indicative of a previously unknown medieval building, was found within the 19th century West Deanery farm buildings (DUR HER 9750).

## **Survey results (Figures 9-10)**

- 7.9 The ridge and furrow [F17] is oriented north-west to south-east and measures up to 94m long. The ridges are 4.5m wide, 0.2m high and evenly spaced 4.5m from crown to crown. The form of the ridge and furrow is straight.

## **Earthwork condition and mitigation**

- 7.10 At the time of the survey the overall condition of the earthworks was stable. However, in areas where animals collected such as around feeders and gates, the earthworks were subject to moderate damage. This damage could be limited in future through stock management, including the relocation of feeders and livestock focal points, and existing damage could be mitigated by reseeding damaged areas.

## **Conclusion**

- 7.11 The cultivation remains may be associated with the settlement at South Church, though they are also within a reasonable distance to be associated with the settlement at Henknowle. The suggestion of a medieval building in the area of West Deanery may also relate to the origin of the cultivation earthworks. Definitive dating of the cultivation remains requires further examination of cartographic and documentary evidence.





Extract from Figure 9: Topographic survey of Area 3, West Deanery Farm

## 8. Survey Area 4: Eldon Bank Farm

### Location (Figure 11)

- 8.1 Eldon Bank Farm (NGR centre: NZ 233185 27380) is located to the west of Eldon Bank, just to the south of the village of Eldon and to the north of Shildon.



Extract from Figure 11: Survey Area 4 location, Eldon Bank Farm

### Landuse, topography and geology

- 8.2 The survey area covered approximately 1.67 hectares. The land is currently under pasture and the field is bounded by hedgerows and fencing to the east, west and

south and by Eldon Bank Farm to the north. Several field drains have recently been dug through the field. The land is occasionally used for animal grazing.

- 8.3 The topography of the field is sloping. The land field slopes gradually down from the north with an elevation of 141.55m OD at the south end of the field to 121.97m OD at the north end.
- 8.4 The solid bedrock geology of the site comprises mudstone, siltstone and sandstone of the Pennine middle coal measures formation. The overlying drift geology comprises Devensian Diamicton till (British Geological Survey 2013).

### **Designations**

- 8.5 The ridge and furrow at Eldon Bank Farm is not recorded with an HER number or under any statutory or rural designations. The ridge and furrow has also been transcribed and recorded in 'An Archaeological Assessment of County Durham: The Aggregate Producing Areas' (Hewitt *et al.* 2011, 245). The Historic Landscape Character Assessment describes the ridge and furrow as post-medieval. The area is under Entry Level Stewardship and also in the 'North East Region Theme' for Higher Level Stewardship.

### **Historical and archaeological background**

- 8.6 The shrunken medieval village of Eldon (Old Eldon) is just over 1km to the east; here the traces of the deserted village can be seen as earthworks either side of a village green (DUR HER 1482).
- 8.7 The survey area was part of the estate of John Scott who had been given a peerage in 1799 and became Earl of Eldon in 1821. The South Durham Colliery at Eldon opened in 1829, when the settlement at Eldon expanded. This was located to the south of the survey area and the South Durham Railway extended along the southern extent of the survey area. Farm buildings were established directly to the south of the site in the 1920s. The South Durham Colliery was dismantled in 1933-4 (Durham Mining Museum 2013).

### **Survey results (Figure 12-13)**

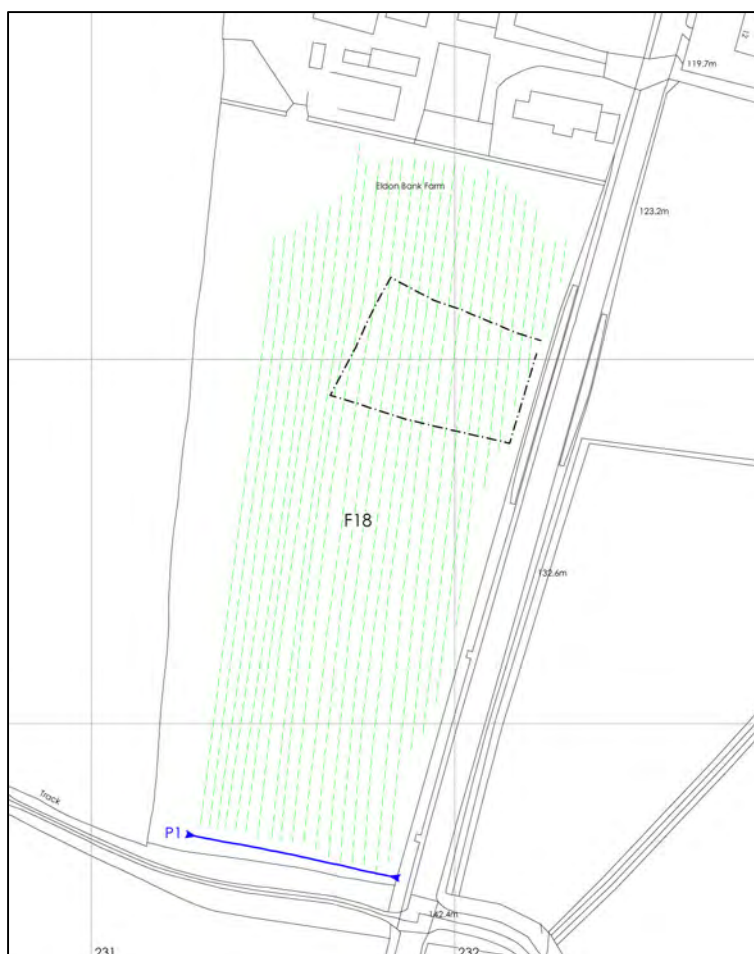
- 8.8 The ridge and furrow [F18] at Eldon is oriented north-north-east to south-southwest, 202m long measured 3m wide and up to 0.2m high. The ridges are straight in form and evenly spaced 3m from crown to crown. These furrows go over a rectilinear earlier raised platform approximately 0.3m high and 50m by 35m which may reflect earlier use of the landscape.

### **Earthwork condition and mitigation**

- 8.9 At the time of the survey the earthworks were in a stable to vulnerable condition. The earthworks had been truncated by several field drains. Further damage could be avoided by restricting new drainage to areas where truncation has already taken place.

### **Conclusion**

- 8.10 The cultivation remains at Eldon appear to be post-medieval in date. The form of the ridges, which are narrow and evenly spaced and conform to the current field boundaries, all indicate a post-medieval date. However, for this date to be definitive further examination of cartographic and documentary evidence is required.



Extract from Figure 12: Topographic survey of Area 4, Eldon Bank Farm

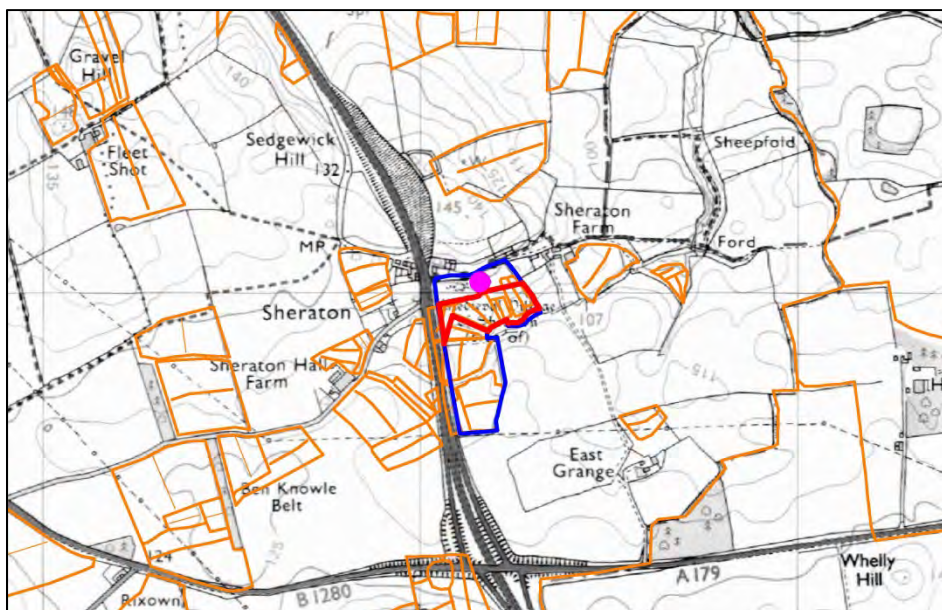
## 9. Survey Area 5: Sheraton

### Location (Figure 14)

- 9.1 The village of Sheraton (NGR centre: NZ 44138 34921) straddles the A19 some 4km to the west of Hartlepool in the south of County Durham.

### Landuse, topography and geology

- 9.2 The survey area covered some 1.76 hectares and at the time of the survey comprised two fields of improved pasture. Animals are occasionally grazed in the field.
- 9.3 The topography of the survey site is undulating. The earthworks present in the fields have had some effect in obscuring the natural topography. There is a gradual slope from the north to the centre of the field where the Bellows Burn runs through the field. The land then rises again to the south. The elevation varies between 113m OD to 116m OD.
- 9.4 The underlying bedrock geology of the area comprises limestone of the Permian period overlain by drift geology of Devensian Diamicton sand and gravel.



Extract from Figure 14: Survey Area 5 location, Sheraton

### Designations

- 9.5 The survey site at Sheraton is a Scheduled Ancient Monument and it is also recorded on the National Monument Record (NMR 27151). The ridge and furrow has also been transcribed and recorded in 'An Archaeological Assessment of County Durham: The Aggregate Producing Areas' (Hewitt *et al.* 2011, 285, 287). The Historic Landscape Character Assessment of County Durham describes the ridge and furrow as medieval in date. The area is under Entry Level Stewardship and also in the 'North East Region Theme' for Higher Level Stewardship.

### Historical and archaeological background

- 9.6 The first documentary record of Sheraton dates to around 1040 when it was referred to as *Scurufatun*. The place-name probably derives from *Scurfa's estate* combining the Old English personal name *Skurfa* from the Old Scandinavian *skurfa* meaning a scab and *tun* meaning farmstead (Watts 2002, 111).
- 9.7 Prior to the late 12th century land within *Shroveton* is recorded as granted to Sherburn Hospital (Austin 1984). This comprised a carucate and an oxgang (Page 1907, 115). The name changes again when the village is recorded in the 12th century as *Schurueton* (Watts 2002, 111). In 1183, Boldon Buke records the *vill* of *Shuruton* divided into two moieties, held by John and Thomas (Archaeological Services 2002, 3). It also records each plough of the villeins ploughing and harrowing 2 acres (Austin 1982, 53).
- 9.8 By the mid-14th century the land was held by the Lord de Neville and John de Aske. From the late 16th century, when the village is recorded as *Sheroton*, the ownership of the land became increasingly divided (Archaeological Services 2002, 3). In 1610 the village is recorded as *Sheraton* (Watts 2002, 111).
- 9.9 The medieval village (DUR HER 160) has shrunk in size and the earthwork remains of the larger village are visible to the south of the main village road. Much of the medieval settlement and open fields are visible as earthworks. The village green is positioned on the road leading off from the A19 towards Sheraton Farm. Facing the

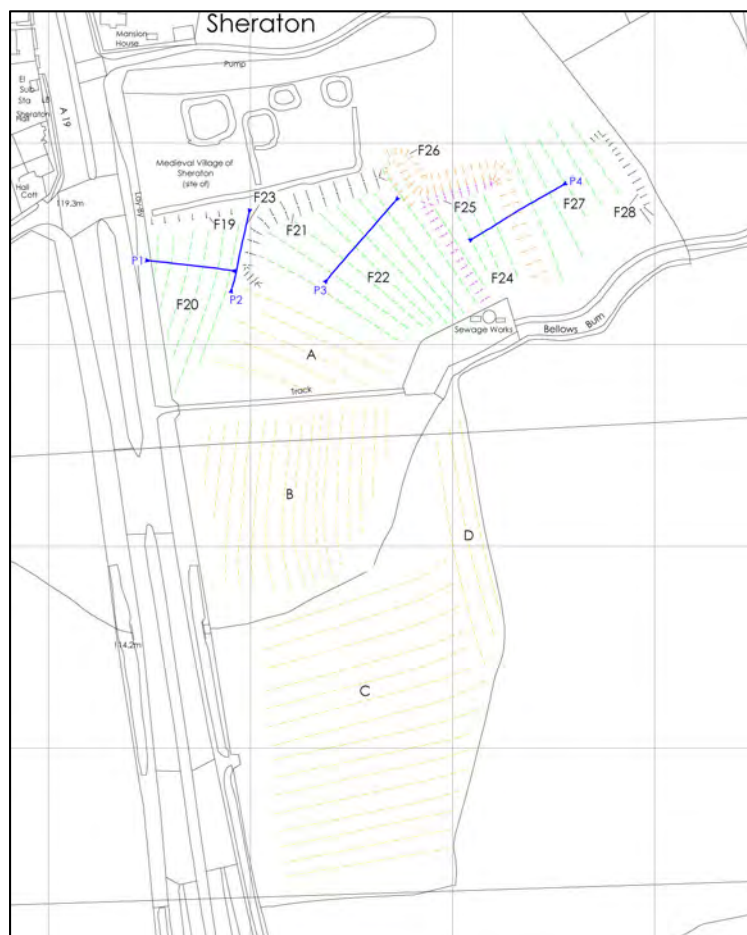


green are parallel lines of tofts with crofts to the rear. To the south of the village are the remnants of the open fields. The settlement also included a possible river crossing and a fishpond (NMR 27151). Ridge and furrow is recorded on the County Durham HER at Grange Farm in Sheraton (HER 45562).

### **Survey results (Figures 15-16)**

- 9.10 The survey area at Sheraton covered 1.55 hectares. The Scheduled area covers an additional 3.38 hectares of ridge and furrow which has also been transcribed. The western part of the survey area contained ridge and furrow [F20], which was oriented north-east to south-west and was 88m long. The ridges measure 6m wide, 0.5m high and are roughly spaced 6m from crown to crown. The form of the ridge and furrow is straight, though the construction of the A19 has probably truncated the full extent of the field. To the north of the ridge and furrow was an east to west aligned headland [F19] which measures 45m long, 6m wide and 0.7m high.
- 9.11 To the east of ridge and furrow [F20] further ridge and furrow was recorded which was probably multi-phased. The first phase of cultivation, ridge and furrow [F23] was overlain by a curving headland [F21]. Ridge and furrow [F23] measures 3m long, 6m wide and between 0.5m and 1m high. It is evenly spaced 6m from crown to crown. The headland [F21] measures 101m long, 6m wide and 1m high. It curves from the south to the north and then turns to the east. Ridge and furrow [F22] extends from the headland [F21] on a north-west to south-east orientation. It measures 84m long with ridges which are 6m wide and 0.5 to 1m high. The ridges are roughly spaced 6m from crown to crown and are straight in form. The easternmost furrow is deeper than the rest and may have marked a boundary delineation. A sewage works was constructed in the field in 2002 which truncated the ridge and furrow. These were recorded as part of a programme of archaeological works (Archaeological Services 2002).
- 9.12 A curving headland [F25] defined the next area of ridge and furrow [F24]. It measures 95.53m long, 8m wide and 1m high. It extends from the south-east to the north-west and then turns to the east-north-east. Ridge and furrow [F24] is north-north-west to south-south-east oriented and measures approximately 43m long. The ridges are 6m wide, 0.5m high and are roughly spaced 6m from crown to crown. The form of the ridge and furrow was straight.
- 9.13 A holloway [F26] separated most of the village earthworks from the cultivation earthworks. The holloway measures approximately 236m long, 8m wide and 2m deep.
- 9.14 To the east of holloway [F26] is further ridge and furrow. This ridge and furrow [F27] is aligned north-north-west to south-south-east and measures 70m long. The ridges are 9m wide, 0.6m high and roughly spaced 9m from crown to crown. The form of the ridge and furrow is straight and the eastern side is defined by a bank [F28]. Bank [F28] is on the same orientation as the ridge and furrow and measures 52m long, 9m wide and 1m to 2m high.
- 9.15 At least four more areas of ridge and furrow are apparent as earthworks within the Sheraton Scheduled area. These have been transcribed from satellite images and briefly comprise:

	Orientation	Length	Ridge width	Ridge spacing	Form
A	NW-SE	87m	6.5m	rough up to 6.5m	straight
B	approx. N-S	95m	7m	rough up to 7m	curving
C	approx. E-W	114m	7m	rough up to 7m	curving
D	N-S	132m	9m	even 9m	straight



Extract from Figure 15: Topographic survey of Area 5, Sheraton

### Earthwork condition and mitigation

- 9.16 At the time of the survey the earthworks were considered to be in optimum condition. The only issue was the construction of a pumping station which had truncated the earthworks. However, the area had been archaeologically recorded in advance and so the damage had been mitigated prior to the scheme of works.

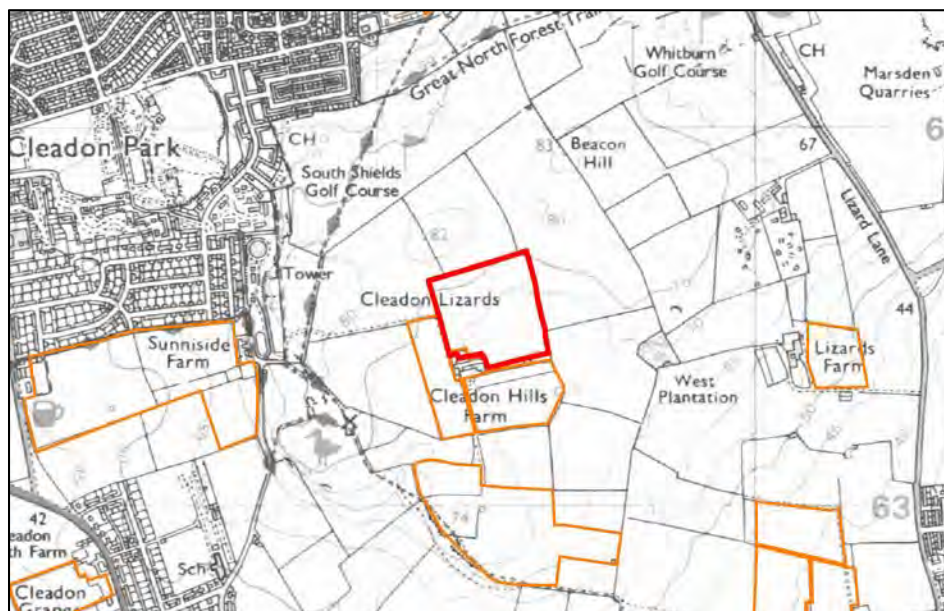
### Conclusion

- 9.17 The cultivation remains at Sheraton are likely to be associated with the medieval village and the well-preserved nature of the earthworks suggests that the fields have not been ploughed since the earthworks were formed. The width and spacing of the ridges suggest they are medieval in date. However, for this date to be definitive further examination of cartographic and documentary evidence needs to be undertaken.

## 10. Survey Area 6: Cleadon Hills Farm

### Location (Figure 17)

- 10.1 The survey area at Cleadon Hills Farm (NGR centre: NZ 39295 63502) straddles the A19 some 4km to the west of Hartlepool.



Extract from Figure 17: Survey Area 6 location, Cleadon Hills Farm

### Landuse, topography and geology

- 10.2 The survey area covered some 6.51 hectares and was all pasture fields at the time of the survey. It was divided by an electric fence and was used for horses. Two areas of the field were flooded.
- 10.3 The topography of the survey site is generally flat with a moderate slope from the north to the south. The elevation varied between 74.54m in the north to 67.38m in the south. The centre of the survey area is subject to flooding and there is also a duck pond in the south of the survey area.
- 10.4 The underlying solid geology is dolostone of the Roker Formation which is overlain by Devensian and Diamicton Till (British Geological Survey 2013).

### Designations

- 10.5 The site is recorded on the Tyne and Wear HER as included in the Cleadon common fields ridge and furrow, which extend north-east of Cleadon village and across Cleadon Lizards in the area of Cleadon Hill Farm (T&W HER 973). The ridge and furrow is also noted on the National Monument Record (NMR 1403331). The area is under Entry Level Stewardship and also within the 'North East Region Theme' for Higher Level Stewardship.

### Historical and archaeological background

- 10.6 Cleadon village is first recorded in Boldon Buke in 1183, the name of the village deriving from 'Cliffa-dun' meaning hill with a cliff. A house in the village dates from 15th century. The land is located in the area of Cleadon Lizards which may have been part of the common land of Cleadon.

### Survey results (Figures 18-19)

- 10.7 There are two areas of ridge and furrow cultivation recorded in the Cleadon Hills Farm survey area, which covers 6.5 hectares. The smaller area of ridge and furrow [F30] was oriented approximately east to west and measures 141m long by 149m wide. The ridges measure 4m wide and between 0.3m and 0.4m high. They were evenly spaced 4m from crown to crown and generally straight in form with a slight curve at the very west end. The remaining ridge and furrow [F31] was aligned roughly north to south and measures 112m and 262m long and between 266m and 122m wide. The ridges are 4.5m wide, 0.4m high and are evenly spaced 6m from crown to crown in the western part and 4.5m from crown to crown in the eastern part.



Extract from Figure 18: Topographic survey of Area 6, Cleadon Hills Farm

### Earthwork condition and mitigation

- 10.8 At the time of the survey the earthworks were considered to be in a vulnerable condition with several issues affecting their preservation. Damage is being caused by animal collection around focal points such as gates and feeders. Erosion to the earthworks is being caused by flooding in the centre and in the south of the field. This damage could be limited in future through stock management, including the relocation of feeders and livestock focal points, and existing damage could be mitigated by reseeding damaged areas.

### Conclusion

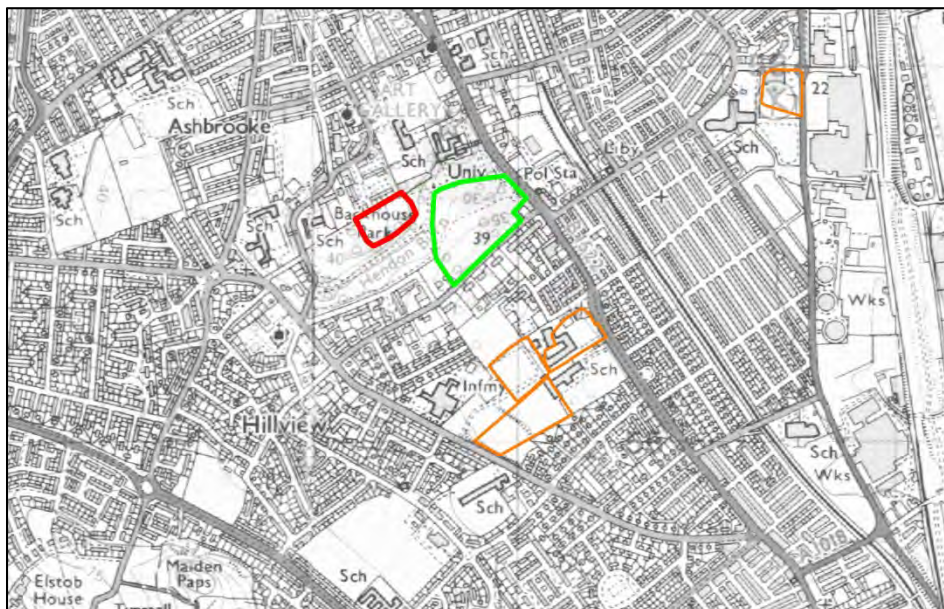
- 10.9 The cultivation remains at Cleadon Hills Farm are likely to be associated with Cleadon Hills Farm as they conform to the enclosure denoted by the existing drystone walling. The even spacing and the straight and narrow nature of the ridge and furrow is also suggestive of a post-medieval date. If the land was indeed part of the common fields of Cleadon examination of the enclosure map for this area may provide conclusive evidence for the date of the cultivation remains.



## 11. Survey Area 7: Backhouse Park

### Location (Figure 20)

- 11.1 Backhouse Park (NGR centre: NZ 39714 55608) is located in the City of Sunderland to the west of the B1522 and to the east of Queen Alexandra Road.



Extract from Figure 20: Survey Area 7 location, Backhouse Park

### Landuse, topography and geology

- 11.2 The tree cover in the park was extensive and for this reason it was not possible to survey all of ridge and furrow within the scope of the project. Therefore 1.67 hectares were topographically surveyed and a further 1.37 hectares were archaeologically recorded. The survey area is a public park which is owned and maintained by Sunderland City Council.
- 11.3 The topography of the park is undulating where the land slopes down to the Hendon Burn which extends through the centre of the park. The elevations varies between 41.77m OD in the north part of the park to 35.97m OD alongside the burn and then rises again to 37.45m OD in the southern part of the park.
- 11.4 The underlying bedrock geology is Permian period dolostone of the Roker Formation which is overlain by Devensian glaciolacustrine deposits of clay and silt.

### Designations

- 11.5 The ridge and furrow is not recorded on the Tyne and Wear HER database. Ridge and furrow is recorded on the Tyne and Wear HER at Hendon (T&W HER 12650), which suggests broad rig medieval ridge and furrow remains, some 300m to the south of the park. The area is within the 'North East Region Theme' for Higher Level Stewardship.

### Historical and archaeological background

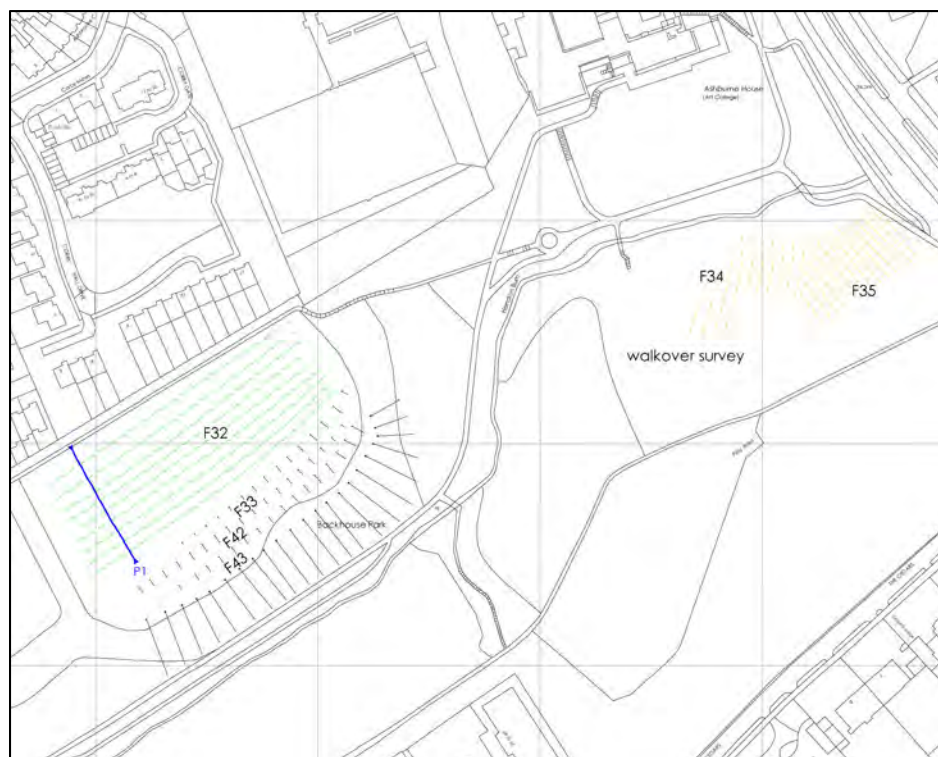
- 11.6 There are several medieval settlements outlying Sunderland. Silksworth is some 2km to the south-west of the survey area, part of which was granted by King Athelstan to the Bishop of Durham in 934 AD. A further part was granted to the monks around 1195 and by 1323-4 the remainder of the manor had been acquired. A branch of the

Middleton family gained a third of the Silksworth estate in the early 15th century which they kept into the 18th century (Victoria County History 2013).

- 11.7 The settlement at Tunstall has medieval origins and is approximately 2km to the south of the survey area. The Bishop of Durham held land in Tunstall in the 1180s and by 1534 part of the estate had been acquired by the Middletons. The wastes or moors were enclosed in 1671, though the medieval form of the village persisted into the 19th century (*ibid*).
- 11.8 To the south survey area at Burdon were two medieval hamlets which had formed part of Athelstan's gift to the Bishop of Durham. However, by the 19th century the settlement had contracted (*ibid*).
- 11.9 A house and garden were built for Edward Backhouse a Quaker in 1835. The house, Ashburn House (Grade II Listed), is located to the north of the garden which is a typical villa garden of the time. Ashburne Park and House were given to the Corporation of Sunderland in December 1922 by Thomas William Backhouse. The Park became a public park in 1923 and was renamed Backhouse Park and an art college was opened in Ashburne House in 1934. Most of the garden was absorbed into the park and little remains of the original garden apart from the fountain filled with plants (T&W HER 7175 and 12463).

### Survey results (Figures 21-22)

- 11.10 The topographic survey recorded a single field of ridge and furrow [F32] which is oriented north-east to south-west and measures 143m long by 61m wide. The ridges measure 4m wide, 0.2m high and were evenly spaced 4m apart. The cultivation remains are straight in form. To the south-east of the ridge and furrow the land slopes steeply down to the Hendon Burn.



Extract from Figure 21: Topographic survey of Area 7, Backhouse Park

- 11.11 On the slope are the remains of three strip lynchets [F33], [F42] and [F43]. The upper lynchet [F33] measures approximately 149m long and 4m to 6m wide. The lynchet curves around slightly as it extends to the north-east. The second lynchet [F42] measures roughly 150m long and 5.07m wide. The third lynchet [F43] is over 150m long and 8m wide.
- 11.12 A further two areas of ridge and furrow in the park were recorded by a walkover survey as due to the tree cover these were unable to be recorded with the GPS. These cultivation remains were located in the south part of the park. Ridge and furrow [F35] is oriented approximately north-east to south-west and measures approximately 70m long. The ridges measure up to 10m wide, 0.6m high and are roughly spaced up to 10m from crown to crown. They are straight in form. To the west another series of ridge and furrow [F34] is oriented north-east to south-west. It measures 30m to 50m long and the ridges are 3m wide and 0.5m high. These are slightly curving at the northern end and evenly spaced 3m from crown to crown.

### Earthwork condition and mitigation

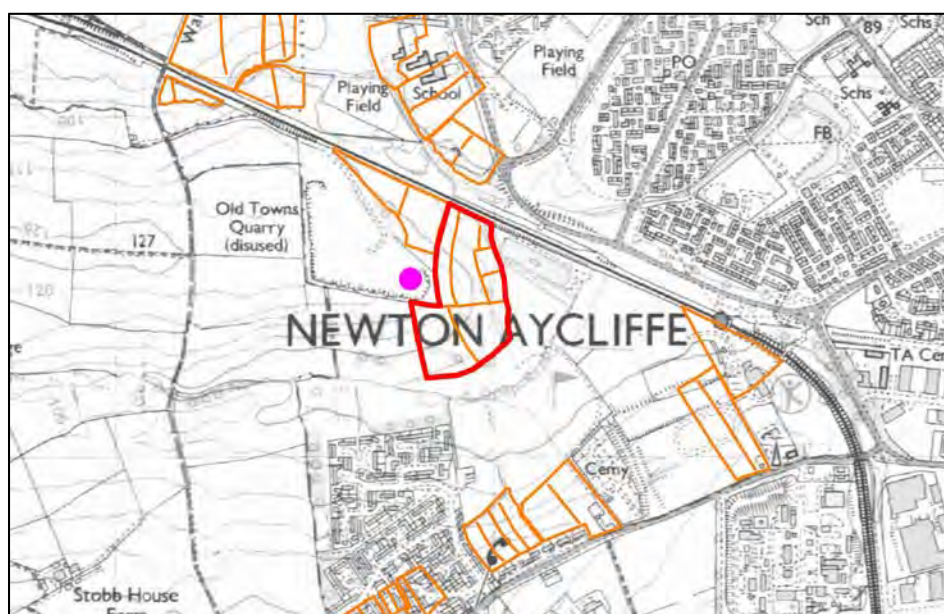
- 11.13 At the time of the survey the condition of the earthworks is conserved to be optimum and there are no issues affecting their preservation.

### Conclusion

- 11.14 The cultivation remains at Backhouse Park are probably associated with a settlement in the area. The spacing of the ridges and the presence of lynchets suggests a medieval date. However, for this date to be conclusive further examination of cartographic and documentary evidence needs to be undertaken.

## 12. Survey Area 8: Oakleaf Golf Course, School Aycliffe Location (Figure 23)

- 12.1 Oakleaf Golf Course (NGR centre: NZ 25927 24454) is located to the north of School Aycliffe between School Aycliffe Lane and to the south of the railway line.



Extract from Figure 23: Survey Area 8 location, Oakleaf Golf Course



### **Landuse, topography and geology**

- 12.2 The survey area is currently in use as a public golf course managed by Newton Aycliffe Town Council. The survey area covers approximately 4.14 hectares. The course is interspersed with trees, ponds and golfing features.
- 12.3 The survey area is located on the north-west part of the golf course. Here the land slopes from the Old Towns Quarry down to Red House Beck. The elevation varies between 114m OD at the quarry to 96m OD by the beck.
- 12.4 The underlying bedrock of the area is Permian Period dolostone of the Raisby Formation. The overlying drift geology of the area is unmapped.

### **Designations**

- 12.5 The landscape at the golf course is not designated. The Historic Landscape Character Assessment describes the ridge and furrow in the western and eastern parts of the survey area as medieval and that in the southern part as post-medieval. The ridge and furrow has also been transcribed and recorded in 'An Archaeological Assessment of County Durham: The Aggregate Producing Areas' (Hewitt *et al.* 2011, 246).

### **Historical and archaeological background**

- 12.6 The School Aycliffe place-name is recorded in Boldon Buke in 1183 as *Sculacle*, as *Skolacleff* in 1368 and as *Skoleaklee* in 1568. It is suggested that the name derives from the Scandinavian Skuli, who may be the same Scula who was given a share of the estates of St Cuthbert in south-east Durham around 918 AD by the Norwegian chieftain Ragnald (Watts 2002, 108). Aycliffe comes from the Old English 'clearing in the oakwood', suggesting that until this period the area was wooded. There were probably two settlements established in the parish by the 9th or 10th centuries. The main village at Great Aycliffe had an Anglo-Saxon church; the present church, though later, retains 10th century masonry. The village was probably an important estate from at least the 9th century. There was also probably a village at Middrige though it is not known whether this had an Anglo-Saxon origin. The villages thrived into the medieval period and the church at Great Aycliffe was expanded (HER 6640).
- 12.7 Ridge and furrow (HER 7782) is recorded at School Aycliffe from aerial photographs some 1km to the south-west of the survey site.

### **Survey results (Figures 24-25)**

- 12.8 An area of ridge and furrow [F36] was recorded which extended approximately east to west. It measures approximately 56m long and the ridges are 3.5m wide and 0.4m high. The ridges are evenly spaced 3.5m from crown to crown and are straight in form.
- 12.9 An extensive area of ridge and furrow is to the west. This was probably all part of the same system but has been truncated by golfing features and so has been recorded in two parts. Ridge and furrow [F37] is in the northern part of the survey area, and is curved in form with an approximate north to south orientation. It measures 75m to 228m long and 115m to 58m wide. The ridges measure between 4m to 7m wide, up to 0.3m high and are unevenly spaced up to 8m from crown to crown.



Extract from Figure 24: Topographic survey of Area 8, Oakleaf Golf Course

- 12.10 The ridge and furrow to the south [F38] is oriented approximately north-north-west to south-south-east and is slightly curved. It measures roughly 145m long and 103m wide. The ridges are 4.5m wide, 0.4m high and are define by a sinuous bank [F39]. The ridges are roughly spaced 4.5m from crown to crown. The bank is 169m long, 6m wide and 1m high. To the west of the bank further ridge and furrow which was too ephemeral to be surveyed. The ridge and furrow is 190m long, 4m wide, 0.1m high and evenly spaced 4m from crown to crown.

#### Earthwork condition and mitigation

- 12.11 At the time of the survey the condition of the earthworks was considered to be optimum. Any damage to the earthworks had been undertaken in the past and maintenance of short grass across the survey areas reduces the degradation of the features.

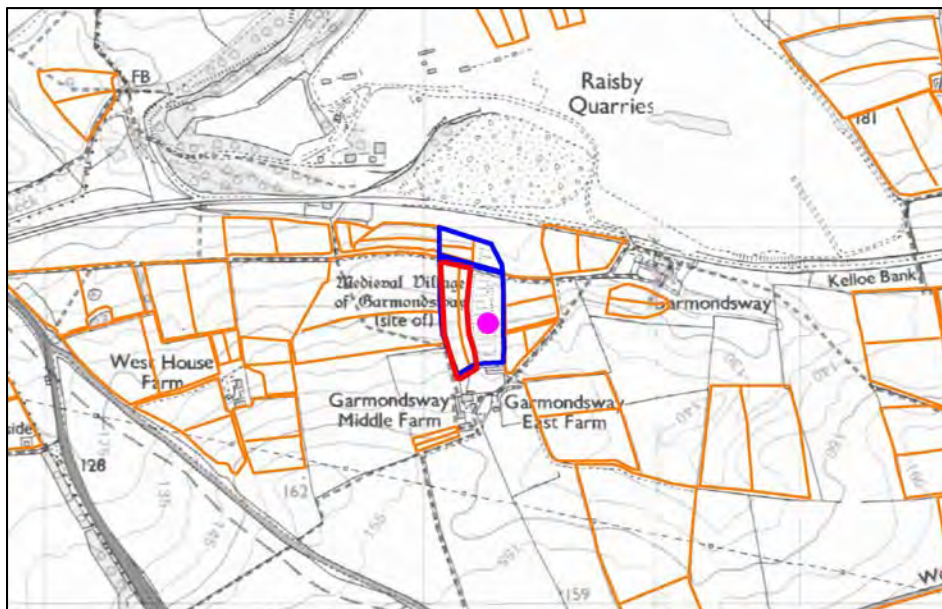
#### Conclusion

- 12.12 The cultivation remains at Oakleaf Golf Course are likely to be associated with the medieval settlement on the hill at Old Farms. The spacing and form of the western and earthworks suggests that they are medieval in date. The eastern ridge and furrow is evenly spaced with narrow ridges. It also appears to overlay the longer ridges of the western area. This may be suggestive of a post-medieval date. However, for this date to be definitive further examination of cartographic and documentary evidence needs to be undertaken.

### 13. Survey Area 9: Garmondsway

#### Location (Figure 26)

- 13.1 The survey area at Garmondsway (NGR centre: NZ 34083 34785) is located approximately 1km to the east of the A177, to the south-east of Coxhoe and to the west of Trimdon.



Extract from Figure 26: Survey Area 9 location, Garmondsway

#### Landuse, topography and geology

- 13.2 The survey area is currently under pasture and is used for keeping horses. The area is bounded by wooden fencing and hedgerows and there are numerous electric fences across the area creating temporary paddocks for the horses.
- 13.3 The survey area covers one field which slopes down from the south to the north. The elevation ranges between 140m OD in the south of the field to 114.5m OD in the north of the field.
- 13.4 The underlying bedrock area is Permian period dolostone of the Raisby Formation, which is overlain by drift geology of Devensian Diamicton till.

#### Designations

- 13.5 The area is recorded on the County Durham HER (DUR HER 1129). The area is also a Scheduled Ancient Monument, which covers the area of the deserted medieval village and the ridge and furrow surveyed including an area of land on the other side of the road. The ridge and furrow has also been transcribed and recorded in 'An Archaeological Assessment of County Durham: The Aggregate Producing Areas' (Hewitt *et al.* 2011, 275). The site is recorded on the National Monument Record (NMR 25995). The area is under Entry Level plus Higher Level Environmental Stewardship.

#### Historical and archaeological background

- 13.6 In the late 12th century the *vill* of Garmondsway was granted to Sherburn Hospital (Page 1907, 115).

- 13.7 The parish of Bishop Middleham included in 1831 the township of Garmondsway Moor, one of the townships which constituted the ancient parish; however in 1865 Garmondsway Moor was regarded as an extra-parochial place and has since been treated separately (Page 1928, 204).
- 13.8 The township of Garmondsway Moor must be identified with the 'place called via Garmundi' from which King Cnut walked barefoot to the shrine of St. Cuthbert. About 1183 the bishop held 4 oxgangs here by purchase and 5 by escheat of Ralph Haget. The first holding was lying waste. Very shortly after the survey of 1183 Bishop Pudsey granted the whole *vill* as part of the endowment of his hospital for lepers at Sherburn. The brethren and sisters were to pay to Ralph son of Paul of York and his heirs 4 marks a year as an equivalent of service from a third part of the *vill*. Ralph son of Paul also granted them a charter. In 1204 the master of the hospital released to the rector of Middleham all claims on the tithe of Garmondsway. Free warren in the demesne lands of the hospital here and elsewhere was granted by Bishop Fordham in 1384. In 1580 Ralph Lever, then master, protested against the assessment of Garmondsway as temporal land of the hospital. He described it as ancient demesne of the house, 'always employed with a stocke of cattell for the maintenance thereof,' and was successful in having the assessment altered. The township still forms part of the endowment of the hospital.
- 13.9 A carucate of land in Raisby (Raseby, xii cent.) was granted with Garmondsway to the hospital by Bishop Pudsey, who had purchased it from Baron, its first cultivator. This land was burdened with a rent-charge of 15s. to the lord of Great Kelloe, 5s. of which were released to the hospital by Alexander de Kellaw in the 13th century. (Page 1928, 202-212).

#### **Survey results (Figures 27-28)**

- 13.10 The survey area covered a single pasture field. The ridge and furrow [F41] measures approximately 290m long and is oriented roughly north to south. The ridges were 5.5m wide, up to 0.5m high and were evenly spaced 5.5m from crown to crown. The ridge and furrow in the north part of the field was far better preserved than the ridge and furrow in the south part of field.

#### **Earthwork condition and mitigation**

- 13.11 At the time of the survey the earthworks were considered to be in a vulnerable condition. There was extensive molehill damage being caused in the northern part of the field. The field had also been divided into horse paddocks and damage was being caused to earthworks around animal focal points. There was also scrub encroachment which would cause minor damage to the earthworks. Molehill damage has been mitigated in the past by conducting 'molehill surveys' although these may be of limited use in this context. The other animal damage could be limited in future through stock management, including the relocation of feeders and livestock focal points, and existing damage could be mitigated by reseeding damaged areas.

#### **Conclusion**

- 13.12 The cultivation remains at Garmondsway are likely to be associated with medieval settlement to the east and the spacing of the ridges suggests that the remains are medieval in form. However, for this to be definitive further examination of cartographic and documentary evidence needs to be undertaken.



Extract from Figure 27: Topographic survey of Area 9, Garmondsway

## 14. Conclusion

- 14.1 The project has recorded a small part of the vast amount of earthwork ridge and furrow remains extant within the project area. The work has trained and educated volunteers in the methods and techniques of archaeological survey as well and providing an opportunity to learn about the cultivation of the landscape in the medieval period and later.
- 14.2 Medieval or later field systems contribute to the context and amenity value of our modern landscape and also have the potential to educate a wide number of people in the ways in which farmers used land over the last thousand years. This work is not only relevant to archaeologists, historians and heritage professionals but also as a future repository of data to all those interested in history, amenity and the educational value of the countryside. Landowners, tenants and countryside managers are guardians of the rural landscape and the project has helped to raise awareness of the ridge and furrow remains. Future work in co-operation with landowners, tenant and countryside managers will help to secure the long term preservation of this valuable and non-renewable archaeological resource.



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### Consultees

- Professor Mick Aston (Professor of Archaeology)
- Professor Chris Gerrard (Professor of Archaeology)
- Ged Lawson (Landscape Architect Durham County Council)

### Websites

- British Geological Survey - <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>
- Clwyd Powys Archaeological Trust 2013 - <http://www.cpat.org.uk/projects/longer/histland/montgom/mtagricu.htm>
- Durham Mining Museum 2013 - <http://www.dmm.org.uk/colliery/e008.htm>
- Keys to the past 2013 - <http://www.keystothepast.info/Pages/Home.aspx>
- Natural England 2013 - <http://www.naturalengland.gov.uk/ourwork/farming/funding/es/hls/default.aspx>
- Victoria County History 2013 - <http://www.victoriacountyhistory.ac.uk/>

## Appendix 1: Data tables

The tables include sites recorded within the entire project area

### Table 1.1 Historic Environment Record

(HERs: County Durham - DUR, Teesside – TEES, Tyne and Wear - T&W)

(Designations: Scheduled Ancient Monument – SAM, Sites of Special Scientific Interest - SSSI, Registered parks and Gardens - P&G)

HER	PRN	Designation	Grid Ref	Description	Evidence	Date
DUR	3		NZ 408 484	Dalton-le-Dale - ridge and furrow	earthwork	uncertain
DUR	15		NZ 4240 3815	Castle Eden - field system	earthwork	medieval
DUR	35		NZ 372 340	Swainby Road, Trimdon - ridge and furrow	earthwork	medieval
DUR	3258		NZ 3185 3865	Heugh Hall Farm, Bowburn - earthworks and ridge and furrow	earthwork	post-medieval
DUR	3591		NZ 420378	Mill Hill Farm, Castle Eden - ridge and furrow	earthwork	medieval
DUR	3592		NZ 427 377	Castle Eden – ridge and furrow	earthwork	medieval
DUR	3738		NZ 3602 4113	Moor Crescent, Ludworth – ridge and furrow	earthwork	medieval
DUR	3847		NZ 4406 4540	Beacon Hill – field system	site of	medieval
DUR	5743		NZ 4401 4532	Beacon House Farm 1 – ridge and furrow	earthwork	medieval
DUR	5772		NZ 4163 3836	Castle Eden Golf Club – ridge and furrow	earthwork	medieval
DUR	5804	SAM	NZ 3754 3757	Old Wingate – field system and shrunken village	earthwork	medieval
DUR	5811		NZ 3363 3965	Old Cassop – ridge and furrow	earthwork	medieval
DUR	5853		NZ 274 308	Spennymoor I – ridge and furrow	site of	medieval
DUR	5854		NZ 271 309	Spennymoor II – ridge and furrow	site of	medieval
DUR	5855		NZ 273 310	Spennymoor III – ridge and furrow	site of	medieval
DUR	5856		NZ 275 310	Spennymoor IV – ridge and furrow	earthwork	medieval
DUR	5857		NZ 277 310	Spennymoor V – ridge and furrow	earthwork	medieval
DUR	5873		NZ 3287 3584	Coxhoe Hall – ridge and furrow	earthwork	medieval
DUR	6630		NZ 3995 3546	West Woodburn Farm, Wingate – ridge and furrow	earthwork	medieval
DUR	6631		NZ 3956 3855	Green Hills Moor, Wingate – ridge and furrow	levelled earthwork	uncertain
DUR	6632		NZ 3929 3918	Wheatley Hill – ridge and furrow	levelled earthwork	uncertain
DUR	6633		NZ 3848 3998	Low Crow's House, Wheatley Hill – ridge and furrow	levelled earthwork	uncertain
DUR	6634		NZ 3780 4059	Crosshouse Moor, Ludworth – ridge and furrow	levelled earthwork	uncertain
DUR	6651		NZ 3798 4114	Harehill Moor, Shadforth – ridge and furrow	levelled earthwork	uncertain
DUR	6653		NZ 36774 43567	Colliery Farm, Haswell – ridge and furrow	levelled earthwork?	uncertain
DUR	6654		NZ 39064 39287	Green Hills, Wheatley Hill – ridge and furrow	levelled earthwork	medieval
DUR	6656		NZ 37013 43220	Haswell Lodge, Haswell – ridge and furrow	earthwork	medieval

HER	PRN	Designation	Grid Ref	Description	Evidence	Date
DUR	6661		NZ 3881 3970	'Long Riggs', Shadforth – ridge and furrow	place-name	medieval
DUR	6682		NZ 366 322	East of Salter's Lane, Fishburn – ridge and furrow	earthwork	medieval
DUR	7782		NZ 2523 2349	School Aycliffe – ridge and furrow	earthwork	medieval
DUR	7992		NZ 36090 32870	Trimdon House Farm – ridge and furrow	earthwork	uncertain
DUR	8030		NZ 43300 48300	Dawdon Hill Farm, Seaham – field system	earthwork	medieval
DUR	9443		NZ	Thrislington Quarry, West Cornforth – ridge and furrow	site of	medieval to post-medieval
DUR	44989	SAM	NZ 42697 38570	The Castle, Castle Eden – Trackway, ridge and furrow, ditch, moat	earthwork	early medieval to post-medieval
DUR	45045	SAM	NZ 37094 44532	Hilltop Enclosure, Pig Hill, Haswell – ridge and furrow	sub-surface deposit	uncertain
DUR	45052		NZ 36684 48213	Great Eppleton, Hetton-le-Hole – trackway, ridge and furrow	sub-surface deposit	uncertain
DUR	45199		NZ 2625 3108	Kirk Merrington Primary School – ridge and furrow	earthwork	medieval
DUR	45409		NZ 40925 35004	Hart, Bushes Hall – ridge and furrow	earthwork	uncertain
DUR	45545		NZ 36790 47990	Great Eppleton, Hetton-le-Hole – ridge and furrow	site of	uncertain
DUR	45546		NZ 36704 48371	Windmillhill, Hetton-le-Hole – ridge and furrow	site of	uncertain
TEES	970		NZ 48300 33700	Sea View Farm – ridge and furrow		medieval
TEES	978		NZ 47200 34878	South of Raby Arms, Hart – ridge and furrow field system		medieval to post-medieval
TEES	979		NZ 47800 34900	Keeper's Cottages, Hart – ridge and furrow field system		medieval to post-medieval
TEES	1053		NZ 47000 35800	North Hart Farm – ridge and furrow		medieval
TEES	1534		NZ 48000 34350	Hart Reservoir – ridge and furrow		medieval
TEES	3406		NZ 48800 33928	High Throston – ridge and furrow	site of	medieval
TEES	3411		NZ 47100 35270	North Hart Farm – ridge and furrow		medieval
TEES	3503		NZ 48740 34500	Middle Warren – ridge and furrow	earthwork	medieval
TEES	3629		NZ 47450 35600	North Hart Farm		medieval to post-medieval
T&W	973		NZ 38 62	Cleadon common fields – ridge and furrow	earthwork	medieval to post-medieval
T&W	974		NZ 33 60	Boldon common fields – ridge and furrow	earthwork	medieval to post-medieval
T&W	487		NZ 353 531	Middle Herrington – ridge and furrow	earthwork	medieval
T&W	887			Whitburn common fields – ridge and furrow field system	earthwork	medieval
T&W	1805		NZ 3347 6317	Primrose Bridge – ridge and furrow		medieval
T&W	1907		NZ 3343 5562	Wearside Golf Course – ridge and furrow	earthwork	medieval
T&W	4911		NZ 3938 6086	Cleadon – ridge and furrow	documentary record	medieval
T&W	11686		NZ 379 615	Boldon Flatts – ridge and furrow	earthwork	medieval?
T&W	11687		NZ 372 636	South Shields – ridge and furrow	earthwork	post-medieval
T&W	11694		NZ 383 603	Carley Hill – ridge and furrow	cropmark	post-medieval
T&W	11719		NZ 377 660	South Shields – ridge and furrow	destroyed monument	medieval to post-medieval
T&W	11731		NZ 328 622	Jarrow – ridge and furrow	earthwork	post-medieval
T&W	11733		NZ 331 630	Jarrow – ridge and furrow	earthwork	medieval

HER	PRN	Designation	Grid Ref	Description	Evidence	Date
T&W	11745		NZ 348 638	South Shields – ridge and furrow	destroyed monument	post-medieval
T&W	11747		NZ 305 617	Gateshead – ridge and furrow	earthwork	post-medieval
T&W	12734		NZ 3608 6701	South Shields – ridge and furrow	earthwork	medieval to post-medieval
T&W	12583		NZ 4013 6270	Whitburn - ridge and furrow	earthwork	medieval and post-medieval
T&W	12585		NZ 4093 6160	Whitburn – ridge and furrow	earthwork	medieval
T&W	12597		NZ 4020 6062	Whitburn – ridge and furrow	earthwork	post-medieval
T&W	12650		NZ 4003 5517	Hendon – ridge and furrow	earthwork	medieval
T&W	12657		NZ 4080 5421	Grangetown – ridge and furrow	earthwork	post-medieval
T&W	14870		NZ 3333 5196	Philadelphia	earthwork	medieval

**Table 1.2: Survey data**

N/A – Not Applicable

No	Area	Description	length	Width	Height	Spacing	Orientation	Form	Date
F1	1	Ridge and furrow	163m	4m	0.4m	4m	NNW - SSE	Straight	Medieval/post-medieval
F2	1	Ridge and furrow	100m	5m to 7m	0.5m to 1m	7m	SE - NW	Straight	Medieval/post-medieval
F3	1	Ridge and furrow	175m	5m	0.3m	5m	N - S	Straight	Medieval/post-medieval
F4	2	Ridge and furrow	32m	4m	0.2m	4m to 5.5m	SE - NW	Straight	Post-medieval
F5	2	Headland	72m	4m	0.3m	N/A	NE - SW	Straight	Post-medieval
F6	2	Bank	18m	4m	0.6m	N/A	NNW - SSE	Straight	Post-medieval
F7	2	Ridge and furrow	32m	4m	0.2m	4.5m to 5m	NNW - SSE	Straight	Post-medieval
F8	2	Bank	129m	4m	0.2m	N/A	NE - SW	Straight	Post-medieval
F9	2	Ridge and furrow	47m	3.5m	0.2m	3.5m	N - S	Straight	Post-medieval
F10	2	Bank	80m	7.5m	0.15m	N/A	NW - SE	Straight	Post-medieval
F11	2	Bank	76m	4m to 5.5m	0.15m	N/A	E-W	Straight	Post-medieval
F12	2	Bank	31m	4.5m	0.7m	N/A	N/A	Curving	Post-medieval/modern
F13	2	Ridge and furrow	46m	3.5m	0.2m	3.5m	NE - SW	Straight	Post-medieval
F14	2	Bank	28m	6m	0.2m	N/A	NNW - SSE	Straight	Post-medieval
F15	2	Ridge and furrow	44m	6m	0.1m to 0.2m	3.5m	NE - SW	Straight	Post-medieval
F16	2	Ridge and furrow	4m	6m	0.1m to 0.2m	6m	NE - SW	Straight	Post-medieval
F17	3	Ridge and furrow	94m	4.5m	0.2m	4.5m	NW - SE	Straight	Medieval/post-medieval
F18	4	Ridge and furrow	202m	3m	0.2m	3m	NNE - SSW	Straight	Post-medieval
F19	5	Headland	45m	6m	0.7m	N/A	E - W	Straight	Medieval
F20	5	Ridge and furrow	88m	6m	0.5m	6m	NE - SW	Straight	Medieval
F21	5	Headland	101m	6m	0.5m to 1m	N/A	N/A	Curving	Medieval

No	Area	Description	length	Width	Height	Spacing	Orientation	Form	Date
F22	5	Ridge and furrow	84m	6m	0.5m to 1m	6m	NW - SE	Straight	Medieval
F23	5	Ridge and furrow	3m	6m	0.5m to 1m	6m	N/A	N/A	Medieval
F24	5	Ridge and furrow	43m	6m	0.5m	6m	NNW - SSE	Straight	Medieval
F25	5	Headland	95.53m	8m	1m	N/A	N/A	Curving	Medieval
F26	5	Holloway	70m	9m	0.6m	N/A	N/A	Curving	Medieval
F27	5	Ridge and furrow	70m	9m	0.6m	9m	NNW - SSE	Straight	Medieval
F28	5	Bank	52m	9m	1m to 2m	N/A	NNW - SSE	Straight	Medieval
F29		NUMBER VOIDED							
F30	6	Ridge and furrow	141m	4m	0.3m to 0.4m	4m	E - W	Straight	Post-medieval
F31	6	Ridge and furrow	112m to 262m	4.5m	0.3m to 0.4m	4.5m to 6m	N - S	Straight	Post-medieval
F32	7	Ridge and furrow	143mm	0.2m	4m	4m	NE - SW	Straight	Medieval
F33	7	Strip lynchet	149m	4m to 6m	N/A	N/A	NE - SW	Curving	Medieval
F34	7	Ridge and furrow	30m to 50m	3m	0.5m	3m	NE - SW	Curving	Medieval/post-medieval
F35	7	Ridge and furrow	70m	10m	0.6m	10m	NE - SW	Straight	Medieval
F36	8	Ridge and furrow	56m	3.5m	0.4m	3.5m	E - W	Straight	Medieval/post-medieval
F37	8	Ridge and furrow	75m to 228m	4m to 7m	0.3m	8m	N - S	Curving	Medieval
F38	8	Ridge and furrow	145m	4.5m	0.4m	4.5m	NNW - SSE	Curving	Medieval
F39	8	Bank	169m	6m	1m	N/A	NNW - SSE	Curving	Medieval
F40		NUMBER VOIDED							
F41	9	Ridge and furrow	290m	5.5m	0.5m	5.5m	N - S	Straight	Medieval/post-medieval
F42	7	Strip lynchet	150m	5.07m	N/A	N/A	NE - SW	Curving	Medieval
F43	7	Strip lynchet	150m	8m	N/A	N/A	NE - SW	Curving	Medieval



## Appendix 2 Project specification

Limestone Landscapes Partnership

BRIEF FOR RIGG AND FURROW COMMUNITY ARCHAEOLOGY PROJECT: 2012-13

### 1.1 Background

- 1.2 This Brief relates to an archaeology project focusing on the remains of rigg and furrow cultivation systems throughout the Magnesian Limestone Plateau area of County Durham, Teesside and Sunderland.
- 1.3 The extent of the project area is shown below (Fig. 1). The transcription of aerial photographs in recent projects has revealed that the LL project area is particularly rich in rigg and furrow, the remains of arable cultivation systems of medieval and early post-medieval date preserved by having later reverted to pasture (Hewitt et al 2011). The rig and furrow may have been formed by ox-drawn ploughs as early as the eleventh century or by steam-driven ploughs in the Victorian era.
- 1.4 The purpose of this project is to examine specified sources of information relating to rig and furrow, followed up by field surveys of selected examples with the aims of establishing a typology, dating guide and management plan which *inter alia* can be used to inform and target areas for inclusion in Natural England's Higher Level Stewardship scheme.
- 1.5 The results of the project may also assist with biodiversity enhancement by helping to protect land which has been the least disturbed and/or improved.

### The Project

- 1.6 The client for this project is the Archaeology Section, Durham County Council, and it forms one of a suite of projects being undertaken as part of the Limestone Landscapes Partnership initiative.
- 1.7 The project will involve as a first step familiarisation with datasets for rigg and furrow across the study area. These consist essentially of the Historic Environment Records for the local authority areas of County Durham & Darlington, Tyne & Wear and Hartlepool. The bulk of the LLP area lies within the first of these local authority areas and the two principal sources of information [excluding documentary material which cannot be encompassed within the resources for the current project] are the recently completed Aggregates Levy Sustainability Fund project **An Archaeological Assessment of County Durham: The Aggregate-Producing Areas**. Completed in 2011, this project entailed the study and transcription of all available aerial photographs for the area of the magnesian limestone plateau with the results set out in a published report and also incorporated into the DCC GIS. The County Durham and Darlington Historic Landscape Characterisation is the other primary information source to be consulted. Interrogation of these datasets will identify the best preserved examples of rigg and furrow across the Limestone Landscapes Partnership area and, where possible, those representative of different types.
- 1.8 The second stage will see the selection of potential examples to be studied and recorded by field survey. These should obviously include the most extensive and best preserved examples but also those that represent the different types of rigg and furrow in order to compile a typology and dating guide. The chosen contractor will be responsible for contacting the landowners/tenants and negotiating access for survey works.
- 1.9 The third and final stage of the project will be the compilation of a fully illustrated and referenced report on the results of the field survey which will include a typology, dating guide and standard management plan for rigg and furrow throughout the study area.
- 1.10 The contractor will be responsible for publicising the project to local groups and enlisting volunteers liaising closely with DCC Archaeology and LLP staff.
- 1.11 The contractor will be expected to give at least one public lecture locally and also at the County Durham Archaeology Day, and to produce an article for inclusion in the annual *Archaeology County Durham* magazine.
- 1.12 The fieldwork will take place during the period December 2012 – February 2013. Precise timing to be agreed with landowners.
- 1.13 The contractor will submit a detailed final report on the project by 31st March 2013.
- 1.14 The contractor will reference the client and the LLP in all information disseminated about the project.
- 1.15 All communication with publication and broadcasting media will be managed by DCC Archaeology staff.

### 2 Historical and Archaeological Background

- 2.1 By the mid-tenth century, the open or common-field system of farming was in use throughout most of England. Each village possessed two or three large, unenclosed fields which were subdivided into strips under individual ownership but farmed in common. In northern England land was usually measured in oxgangs, and subdivisions known as bovates. An oxgang was the area of land that an ox could plough in a year. This varied considerably from one area to the next ranging from as little as 6 acres (2.4 ha) up to as much as 20 acres (8 ha). There were obviously many factors involved not least variability in the quality of the soil and the nature of the terrain. A typical land-holding might have been just one or two oxgangs consisting of perhaps 40 to 80 scattered strips located throughout the open-field system.

- 2.2 The ploughman and ox-team avoided land already ploughed by working round in a reversed 's-bend' or 'c' shape, creating a distinctive pattern of earth troughs and banks known as 'ridge and furrow' or 'rigg and furrow'. This can take many forms. Broad ridges in a reverse S pattern separated by pronounced earthen baulks or headlands are characteristically medieval whereas very straight, regular ridges are likely to be the result of nineteenth century steam ploughing. County Durham contains some of the best preserved landscapes of ridge and furrow in the country. Even where ridge and furrow does not survive as upstanding earthworks it is often recognisable on aerial photographs and geophysical survey. The early date of some examples of rigg and furrow as suggested by their form is validated by the fact they surround or lie in close proximity to known deserted/shrunken medieval villages. **A selection of such examples should obviously be included in those to be surveyed and must include the surviving rigg and furrow in the vicinity of the DMV at Garmondsway.**

### 3 Archaeological brief

- 3.1 It is expected that the archaeological works will be carried out in general accordance with archaeological best practice as defined in the following publications: *Yorkshire, the Humber and the North-East: A Regional Statement of Good Practice for Archaeology in the Development Process* (WYAAS 2011) and *Standard and Guidance: an archaeological evaluation* (IFA 2008).
- 3.2 This brief sets out the form of the archaeological works required and in general terms how they must be carried out.
- 3.3 The principal objectives of the project are:
- to provide training in archaeological fieldwork surveying and recording methods for local volunteers and to equip them with new skills
  - to establish a typology, dating guide and management plan for rigg and furrow within the LLP area.
- 3.4 The appointed archaeological contractor must provide detailed research aims in relation to the *North East Regional Research Framework for the Historic Environment* (NERRF – Petts and Gerrard 2006)
- 3.5 Survey work should not involve any ground disturbance.
- 3.6 This brief does not constitute the "*Project Design*". A Project Design must be prepared and submitted by contractors as an essential element of their tender documentation when bidding for the work.

### 4 Recording

- 4.1 Horizontal survey control of the site must be by means of a coordinate grid, using metric measurements. The location of the grid must be established, where possible, relative to the National Grid. Vertical survey control must be tied to the Ordnance Survey datum. Details of the method employed must be recorded, including the height of the reference point.
- 4.2 All survey work must be carried out in accordance with guidance given in English Heritage's *Metric Survey Specification for Cultural Heritage* (2009), especially Section
- 4.3 All drawn records must be clearly marked with a unique site number, and must be individually identified. The scale and orientation of the plan must be recorded. All drawings must be drawn on dimensionally stable media. All plans must be drawn relative to the site grid and at least two grid references marked on each plan.
- 4.4 All archaeological features must be photographed and recorded at an appropriate scale.
- 4.5 Photographic records must use archival quality black & white prints and colour digital images (TIFF format) and include a suitably sized metric photographic scale. Suitable digital images of the site for inclusion on the *Keys to the Past* website must be included with the report. Digital images must not be relied on as the primary means of record as the collecting museums in Durham are not able to offer stable digital archiving.

### 5 OASIS

- 5.1 The Durham County Council Archaeology Section supports the Online Access to Index of Archaeological Investigations (OASIS) Project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large scale developer funded fieldwork.
- 5.2 The archaeological contractor must therefore complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/> within 3 months of completion of the work. Contractors are advised to ensure that adequate time and costings are built into their tenders to allow the forms to be filled in.
- 5.3 Technical advice must be sought in the first instance from OASIS ([oasis@ads.ahds.ac.uk](mailto:oasis@ads.ahds.ac.uk)) and not from Durham County Council Archaeology Section.
- 5.4 Once a report has become a public document by submission to or incorporation into the HER, Durham County Council Archaeology Section will validate the OASIS form thus placing the information into the public domain on the OASIS website.

- 5.5 The archaeological consultant or contractor must indicate that they agree to this procedure within the Project design submitted to Durham County Council Archaeology Section for approval
- 6 Health and Safety Policy**
- 6.1 Contractors are expected to abide by the 1974 Health and Safety Act and any subsequent amendments. They are also expected to ensure that all projects which fall under the Construction and Design Management Regulations 2007 follow all necessary requirements of said regulations. Appropriate provision of first aid, telephone and safety clothing as described in the SCAUM manual on archaeological health and safety must be followed. Each site must have a nominated safety officer.
- 6.2 Contractors are advised to identify the location of any services or overhead wires which may cross the site so that they can be avoided.
- 6.3 The undertaking of a risk assessment prior to the commencement of works is required. A copy of the risk assessment must be circulated to the client and any other sub-contractors working on the site at the same time. Contractors must ensure that all staff working on the site are fully briefed on all health and safety issues relating to the site prior to working there.
- 6.4 The contractor must have the following insurances public liability (£5 million), employers liability (£10 million), professional indemnity and insurance that covers volunteers involved in the project.
- 7 Public Dissemination**
- 7.1 County Durham Archaeology Section produces an annual publication every March which highlights the archaeological work conducted in the county over the previous 12 months. The appointed contractor must produce as part of the project a detailed synopsis for inclusion in *Archaeology County Durham*. Where a project runs for more than one year several such summaries may be required.
- 7.2 It is possible that the project may produce results of sufficient importance to warrant more formal publication in the view of the council's Principal Archaeologist. Should this prove to be the case then devising a strategy to achieve this will be the subject of discussions between DCC's Principal Archaeologist and the relevant contractor.
- 7.3 It is also a condition of the contract that a member of the project be available to give a talk at County Durham Archaeology Day in 2014.
- 8 The Report**
- 8.1 Five hard copies of the report and a digital copy must be produced for the client. The report must be written to MAP2 standards (English Heritage 1991) and include the following at the minimum:
- executive summary
  - location plan of survey sites to at least 1:10,000 scale with at least an 10 figure central grid reference
  - OASIS reference number; unique site code
  - contractor's details including date work carried out
  - methodology and rationale for choice of sites selected for survey
  - description of location and geology of sites
  - a general site plan to a suitable scale and tied into the national grid
  - detailed site plan showing remains of rig and furrow at appropriate scale
  - general overall discussion of the results pulling together all data
  - additional plans/map extracts to display noted and recorded archaeological features as appropriate
  - digital images to clarify information
  - suggested recommendations regarding the need for, and scope of, any further archaeological analysis, including publication
  - bibliography/references
- 8.2 The report must be presented in an ordered state and contained within a protective cover/sleeve or bound in some fashion (loose-leaf presentation is unacceptable). The report will contain a title page listing site name and County, together with a general NGR, the name of the archaeological contractor and the developer or commissioning agent. The report will be page numbered and supplemented with sections and paragraph numbering for ease of reference. Photographs of trenches and sections may be included, but must not be used as the sole graphic representation.
- 8.3 The report must seek to identify any deposits on or associated with the site that will remain following the completion of the project..
- 8.4 **Durham County Council Archaeology Section will possess joint copyright with the contractor so as to use the report and its contents in furtherance of its function as a publicly accessible Historic Environment Record and/or for educational and outreach purposes, including furthering the aims the of Limestone Landscapes Project.**
- 9 The Tender**
- 9.1 Tenders for the work must include a Project Design which includes the following information and be set out according the requirements of the DCC "Request for Quotation" document.

- 9.2 Brief details of the organisation and the number of staff, including specialists, who would be involved including any relevant specialisms or experience (CV's should be available if requested).
- 9.3 Details concerning proposed methods of recording and source material.
- 9.4 Statement agreeing to complete the OASIS forms on completion of the works.
- 9.5 An estimate of how many weeks training would be provided including the maximum number of volunteers on site per day and whether or not weekends would be included. The tender must include a breakdown of costs attributable to:
- travelling and subsistence
  - survey team
  - temporary site accommodation
  - elevated photography
  - report production
  - archiving cost to the Bowes Museum (see section 13.1)
  - administration
  - other
- A contingency sum should be allocated.

## 10 Submission of Report

- 10.1 Five hard copies of the report along with a digital copy with images (JPEG's) of the site for the *Keys To The Past* website must be submitted to the client by 31st March 2013 in order to meet HLF requirements.
- Archaeology Section  
Durham County Council  
Heritage, Landscape & Design Team  
Regeneration & Economic Development  
5th Floor  
County Hall  
Durham  
DH1 5UQ

## 11 The Archive and Submission to a Museum

- 11.1 The site archive comprising the original paper records and plans, photographs, negatives, and finds etc, must be deposited in the appropriate museum (the Bowes Museum, Durham) at the completion of the project. This must be in accordance with both the County Archaeological Archive policy and the Durham County Council Historic Environment Record Revised Charging Scheme (2012-13). Both of these are available from DCC Archaeology if required.
- 11.2 On conclusion of the project, the records generated must be assembled into an indexed and cross-referenced archive in accordance with the guidance of Appendix 6 of *Management of Archaeological Projects* (English Heritage, 1991) and the *Standards and Guidance* of the Institute of Field Archaeologists (IFA, 1999).
- 11.3 Archiving must meet the relevant standards set out in *Guidelines for the Preparation of Excavation Archives for long-term storage* (UKIC 1990) and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (AAF 2007). The archive must be deposited with the appropriate museum in accordance with their deposition conditions. Please note that the Bowes Museum do not offer digital archiving capabilities at this time.

## 12 Notice

- 12.1 The Principal Archaeologist of the County Council must be given two weeks notice in writing of the commencement of project work. During such works the Principal Archaeologist or their nominated representative shall be allowed access to the site and excavations at all reasonable times.

## 13 References

Archaeological Archives Forum	2007	Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation.
English Heritage	1991	Management of Archaeological Projects 2
	2002	Guidelines for Environmental Archaeology: a guide to the theory and practice of methods from sampling and recording to post-excavation
	2009	Metric Survey Specification for Cultural Heritage
Hewitt, R et al	2011	An Archaeological Assessment of County Durham: The Aggregate-Producing Areas. Durham County Council/Archaeological Research Services.

Institute for Archaeologists (IFA)	1999
Petts, D and Gerrard, C	2006
United Kingdom	
Institute of Conservation	1990
West Yorkshire Archaeological Advisory Service (WYAAS)	2011

Standard and Guidance: Archaeological  
Evaluation.

Shared Visions: The North East Regional  
Research Framework for the Historic Environment  
Guidelines for the Preparation of  
Excavation Archives for long-term storage

Yorkshire, The Humber & The North-East:  
A regional statement of good practice for  
Archaeology in the development process

**14th November 2012**  
**David Mason**  
**Principal Archaeologist**  
© Durham County Council



## Appendix 3: Typology and dating guide

### Introduction

- A3.1 There are numerous cultivation regimes, both earthworks and levelled remains, extant within the project area, which can be demonstrated to date to the medieval and later periods. To date, no early medieval cultivation remains have been identified. However, a structured programme of research may indicate areas where these may have existed and early examples from this period may survive. The classification and dating of ridge and furrow can be a complex and time consuming process. A variety of methods and sources can be applied and consulted in order to gain accurate results.

### Desk-based research

- A3.2 Initially desk-based research is recommended; a variety of information sources exists which can give an insight into the origin and dating of cultivation remains.

### Historical documents

- A3.3 Historical documents can provide a wealth of information about the former use of land and help not only to identify areas of common land but also aid in the dating of extant ridge and furrow remains.
- *Charters, surveys and deeds of land grants* - These are the earliest documents which record the changing ownership of land. They are found from the 12th century onwards (Hall 1982, 13). In the palatinate of Durham these include Boldon Buke of 1183 and various Bishops surveys from the 14th century onwards.
  - *Terriers* - These provide the most complete and important records of open fields. They can give a complete view of a township including its field system, structure, size of furlongs, strips and farms, landuse, topography, tenure, spatial arrangement of desmesne lands and other estates. Occasionally further information is provided such as the names of tenants, other details about individual holdings and some terriers also refer to maps. Terriers dating to the 16th and 17th centuries are frequently found (Hall 1994, 95).
  - *Terriers of glebe land or other small holdings* - These describe the location of land in terms of the furlong. They can refer to ownership either side of furlongs and include abutments and cardinal directions. These can enable the layout of furlongs and sometimes the direction of ploughing to be determined. They can also include buildings, land tithes, types of open field and the progress of enclosure. They exist from the end of 16th century to the 18th century (Baker and Butlin 1973, 18).
  - *Manorial court rolls* - These record the regulation of open fields. The information that they include can detail work service, cropping procedures and yields, which can be deduced from the returns of manorial accounts.
  - *Sale catalogues* - These record the sales of estates and frequently contain field names, which indicate previous land or crops use.
  - *Collections of field names* - County record offices sometimes contain collections of field names, which were made during the last 80 years as part of studies by the place-name society. These include records made by school children and recollections by farmworkers and so need to be used with an understanding of their limitations.
  - *Probate inventories* - Such documents, which post-date 1500, record the changes in society and in land ownership. There are new types of survey and

documentation of social and agricultural change which list possessions of a deceased person who left a will. Details of agricultural implements, animals, and crops grains are often included (Baker and Butlin 1973, 16-18).

- *Crown surveys* - These are of escheated or confiscated land, which can be used to reconstruct agricultural arrangements in the early post-medieval period (Baker and Butlin 1973, 18).
- *Records of enclosure* - These are useful where there are disputes over enclosure or litigation where enclosure was autocratically imposed. They record the methods of enclosure including: piecemeal; by private acts of parliament (the earliest being the reign of James I); by agreement; with the agreement enrolled in Chancery; agreements made by the authority of the Court of Exchequer; and private agreements between landlords (Baker and Butlin 1973, 18).
- *Home Office Enquiries* - These were initiated by the high price of grain in the late 1790s and early 1800s, which led to enquiries into the acreage of sown crops. However, only the returns of 1795 and 1801 provide useful information (Baker and Butlin 1973, 20)
- *Land tax returns* - These were made from around 1770 to 1832 and enable the proportion of farms which were owned by their occupiers and those which were rented to be calculated for each parish (Baker and Butlin 1973, 21).
- *Individual accounts* - These include tours of individuals and county reports to the board of agriculture, royal agricultural society report and papers, and parliamentary papers (Baker and Butlin 1973, 21).

#### **Cartographic evidence**

A3.4 Maps where they exist provide invaluable information about previous landuse, ownership, crop type, dating and topography.

- *Pre-enclosure maps* – These are rare but do exist, such as medieval manorial maps.
- *Strip maps* - One in Northamptonshire for Strixton is dated to 1583 and provides a complete plan of the common land of the township including strips, furlongs and field names (Hall 1982, 16).
- *Estate plans and surveys* – These show the layout of open fields and tenurial arrangements. However, they do not always provide a complete account of the medieval landscape because of contractions of the ploughing area and the establishment of closes left as permanent pasture (Hall 1982, 16). They can also vary from a basic sketch of part of an estate to an exact accurate survey of an entire estate.
- *Enclosure maps* – These usually give fields names, acreages and can detail strip cultivation.
- *Tithe maps and apportionments* - The Tithe Commutation Acts of 1836-60 provided for the substitution of a money-based rent, based on average corn prices for seven years to be paid by landowners for the commutation of tithes paid to the church. These provide field names, states of cultivation, name of owners or tenants, field names and acreage (Baker and Butlin 1973, 5-6).
- *Ordnance survey maps* – The Ordnance Survey mapping of Britain was stimulated by the need to provide an accurate representation of the country side. These date from the 19th century and record changes in the landscape to the present day.

### **Photography and satellite imagery**

- A3.5 The changes in agricultural practice in the modern period often date to the latter part of the 20th century. Aerial photographs taken by the RAF in the 1940s often record the pre-enclosure landscape where it was preserved. There are private collections of aerial photographs and others which exist in local county and university archives. Satellite imagery is a free and useful way to examine a wide expanse of land and often details can be observed which are not apparent on the ground.

### **Fieldwork**

- A3.6 In order to further study cultivation regimes a certain level of fieldwork needs to be undertaken in order to gain an accurate picture of the remains being examined.

### **Survey**

- A3.7 Earthwork survey records size, form and layout of variation in topography. This can take the form of a walkover recording survey, a detailed metric survey, a photographic record or a combination of these methods. Topographic survey is useful as it can identify subtle differences in elevation which indicate former field systems, for example where headlands persist in ploughed fields as long sinuous banks. These following recording and collation of information can be identified as such.

### **Excavation**

- A3.8 The use of excavation can provide dates for soil deposits through the extraction of dateable material. It is a proven technique for dating of archaeological features. However, there are limitations. These include: expense; paucity of dateable material in cultivation remains; and the fact that the dateable material will only provide a *terminus post-quem* rather than the origins of the cultivation system

### **Experimental archaeology**

- A3.9 There have been several assumptions made about the ways in which land was ploughed and how the earthwork remains were formed. It would be useful to prove assumptions by testing the theories in the field and the use of experimental archaeology could dismiss or prove such theories.

### **Dating and classification**

- A3.10 As previously mentioned dating and classification of ridge and furrow is very complicated. With knowledge and understanding of these limitations suggestions of date and origin can be made.

### **Forms of cultivation**

- Curved or undulating - This is indicative of the use of animals for ploughing and is typically taken to date to the medieval period.
- Straight - This is thought to have been carried out with the use of a mechanised ploughing system such as steam or tractor ploughing.
- Size - Measurements of width and length can be indicative of date. Medieval strip fields tend to have wider ridges with longer strips, though as previously mentioned topography, former landuse and later modifications can also affect size. Longer cultivation remains can also indicate removal of earlier field boundaries to make fields bigger. Wider ridges usually date to the medieval period with narrower ridges being post-medieval. However, early medieval ridge

and furrow can also be narrowly spaced, though the ridges will probably be undulating.

- Spacing - Where ridges are spaced widely this can indicate medieval strip ploughing with large furrows for drainage and boundary delineation. Narrow spacing can be post-medieval in date, where drainage was more advanced and larger areas of conjoined land would belong to an individual rather than the communal medieval strip farming. Narrow spacing is also suggestive of early medieval ploughing though the ridges usually are also undulating.
- Other features - Identification of these can give further information on the dating of the remains. Such as headlands, contraction of headlands, straight field boundaries in alignment with ridges etc.

### **Truncation and chronology**

- A3.11 Where later features which truncate underlying cultivation remains can be identified and dated, these can at least provide pre-dating for the cultivation remains, for example where enclosure boundaries overlie ridge and furrow and enclosure of the area has mapping evidence (Hall 1982). A heavily modified landscape can often be easier to understand and date where there are a variety of features with which to form a chronology of the landscape.

### **Topography**

- A3.12 Topographical detail can be used to aid dating and identification. For example where it is known that marginal land was not cleared of woodland until a certain date or that wartime expedient cultivation was employed. Also where land is low-lying and well-drained it is usually the case that it has been occupied for some time and so the cultivation remains may have early origins.

### **Place names**

- A3.13 Historically ridge and furrow can be shown to be medieval where there are detailed surveys with furlong names corresponding to those on open field maps. Changing land use can be inferred from furlong names such as land taken from woods or assarted land.

### **Basic Terminology**

**Assarts** – land reclaimed from woodland

**Balks** - in the late medieval period narrow strips were allowed to grass over and became used as common permanent rights of way

**Dales** – strips of grazing land in meadows

**Fallow** – arable land left out of cultivation for grazing or restoration of soil

**Farm** (yardland, husbandland) – collection of strips across a township which were farmed by an individual holding

**Fields** – groups of furlongs grouped together into large blocks

**Furrow** – Shallow ditch created by ploughing, for drainage or boundary delineation

**Gores** - triangular-shaped strips formed to fill in areas

**Grass ends** – introduction of grassed areas by shortening the lengths of arable strips against a headland

**Heads (Butts)** – soil deposits at the end of strips where the plough was lifted out for turning

**Headland** - where two furlongs had furrows at right angles to one another the first land of one furlong was which was made up of all the other heads of all the other lands in the furlong was known as a headland

**Joint** – where two furlongs lay in the same direction the boundary is marked by a double row of heads. Furlong boundaries with lands running at right angles to them on either side were made up of a double row of heads and were called joints.

**Leys** - strips left to grass over were called,

**Lands** – cultivation strips

Furlong – groups of strips with the furrows running parallel. This refers to an area not a length. The size of a furlong depended on terrain, where the soil was soft and cut by watercourses and small valleys, furlongs would have been short, on flatter ground furlongs were very longer

**Lynchets** (strip lynchets)– cultivation terracing on sloping ground

**Meadows** – permanent pasture lying near rivers

**Ridge** – Raised bank created by ploughin

**Rood, pole, dole, hide** – strips of meadow not ploughed and no trace remains.

**Virgate, yarland, oxgang, bovate** – amount of land attached to a peasant holding



## **Appendix 4: Draft management plan for cultivation remains**

### **Introduction**

- A4.1 The purpose of the management plan is to preserve and manage the future of cultivation remains (monuments) of post-medieval or earlier date. The current state of monuments must be recorded in order to provide an accurate record of the monument's present condition and how this may change and best be managed in the future. The value and management of such monuments is based upon the premise that the historic environment is a finite and non-renewable resource.
- A4.2 Cultivation remains include a multitude of archaeological features, which relate to the agricultural exploitation of the landscape. The main categories are: ridge and furrow, lands, furlongs, strip lynchets, fields, field systems, headlands, field boundaries, banks, ditches, trackways and rick stands.
- A4.3 The earliest recorded cultivation remains date to the Neolithic period such as the cord rig at Simonburn in Northumberland (DUR HER 12573). In Montgomery, in Wales, the Norman motte and bailey castle at Hen Domen overlies part of an earlier ridge and furrow field system, which relates to arable cultivation probably belonging to an earlier Mercian settlement (Clwyd Powys Archaeological Trust 2013). However, the majority of cultivation remains are of medieval or post-medieval date.

### **Condition assessment**

- A4.4 A condition assessment records the current state of a monument, the evidence for change to the monument and the prediction of how that change may affect the monument in the future. The assessment aims to advise on the present and future management of the monument in order to preserve it in a stable or improved state (Rimington 2004).

### **Desk-based assessment**

- A4.5 The primary stage in a condition assessment is to undertake a desk-based assessment in order to understand the management and environmental issues relating to a monument and how these may affect it. The desk-based assessment requires research and consultation which may include:
- Historic Environment Records (County based)
  - National Monument Records (English Heritage)
  - Historic Landscape Characterisation (County based)
  - aerial and ground-based photography
  - previous archaeological works
  - antiquarian accounts
  - historical mapping
  - paintings
  - old photographs
  - oral accounts
  - botanical and ecological surveys
  - historic and natural environment designations
  - soils and geology maps
  - definitive rights of way
  - existing management agreements
  - statutory designations

### **Field visit**

- A4.6 The field visit is to record the current state of a monument and any management issues. This includes survival, overall condition, vulnerability, stability, and damage. It provides a baseline condition for an individual monument from which to continue in its future management (*ibid*). The field can include both written and photographic records and record:

- date and time spent on site
- name of surveyor
- weather and ground conditions
- soil character, landuse, vegetation cover and extent, agricultural use
- quantitative scoring system and assessment of overall condition of the monument
- vulnerability and stability of the monument
- assessment of the current and future management issues
- any recommendations for future archaeological recording

### **Monitoring**

- A4.7 Monitoring visits can provide visual assessment, qualitative scoring, quantitative scoring, photography, transect and quadrant surveys, and measured surveys in reference to the original condition assessment of the monument.

### **Issues**

- A4.8 There are several issues which can affect the preservation and management of cultivation remains. These can include: stock interference; recreational landuse; pedestrian access; vehicular access; installation of drainage, scrub encroachment; burrowing animals; insertion of ponds; historic boundary removal; tree planting; soil erosion; ploughing old pasture; and new fencing.

### **Recommendations**

- A4.9 There are many ways in which potential damage and loss can be mitigated. These include: adjustment of stocking levels and management of stocking areas; relocation of livestock focal points; mesh paths; insertion of permanent routeways (under archaeological advisement and recording); reseeding ground; regular grass cutting; close grazing; weed killing; pest control; and removal of molehills (Natural England 2010; English Heritage 2004).
- A4.10 Grassland is a highly beneficial form of land management for archaeological sites and placing areas under permanent pasture is one of the most effective ways to preserve earthwork remains.

### **Further help**

- A4.11 Grant aid may be available from English Heritage or Defra and the site may be appropriate for inclusion in a Higher Level Stewardship Award Scheme. The scheme aims to '*deliver significant environmental benefits in priority areas. It involves more complex environmental management requiring support and advice from local advisors, to develop a comprehensive agreement that achieves a wide range of environmental benefits over a longer period of. HLS Agreements last for ten years.*'(Natural England 2013).

### **Useful contacts**

- A4.12 Local Authority: A list of Local Authority Archaeologists is available from the Association of Local Government Archaeological Officers' website at [www.algao.org.uk](http://www.algao.org.uk)

### **Farming and Wildlife Advisory Group: FWAG**

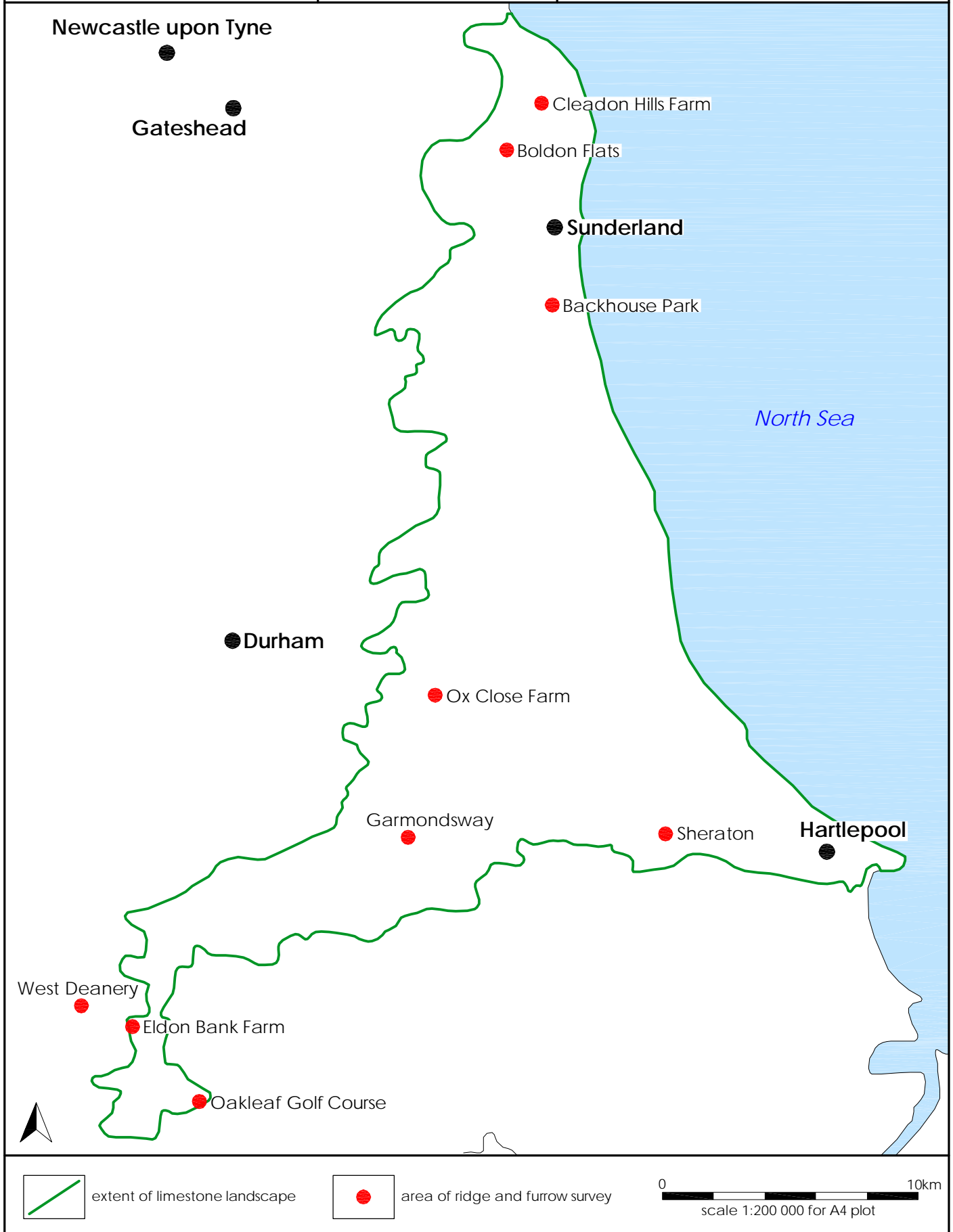
Advisers work closely with Local Authority Archaeologists and are able to offer practical on-farm advice on the integration of all aspects of farm conservation management. A list of regional offices is available on the FWAG website at [www.fwag.org.uk](http://www.fwag.org.uk)

### **Natural England**

John Dower House  
Crescent Place  
Cheltenham  
Gloucestershire  
GL50 3RA  
[www.naturalengland.org.uk](http://www.naturalengland.org.uk)  
Tel: 01242 521381  
(ask for the National Heritage Adviser)

### **English Heritage**

1 Waterhouse Square  
138-142 Holborn  
London  
EC1N 2ST  
[www.english-heritage.org.uk](http://www.english-heritage.org.uk)  
Tel: 020 7973 3000  
(ask for your local regional office for designation enquiries or for the Advice and Grants Manager for Heritage Management Plan enquiries)





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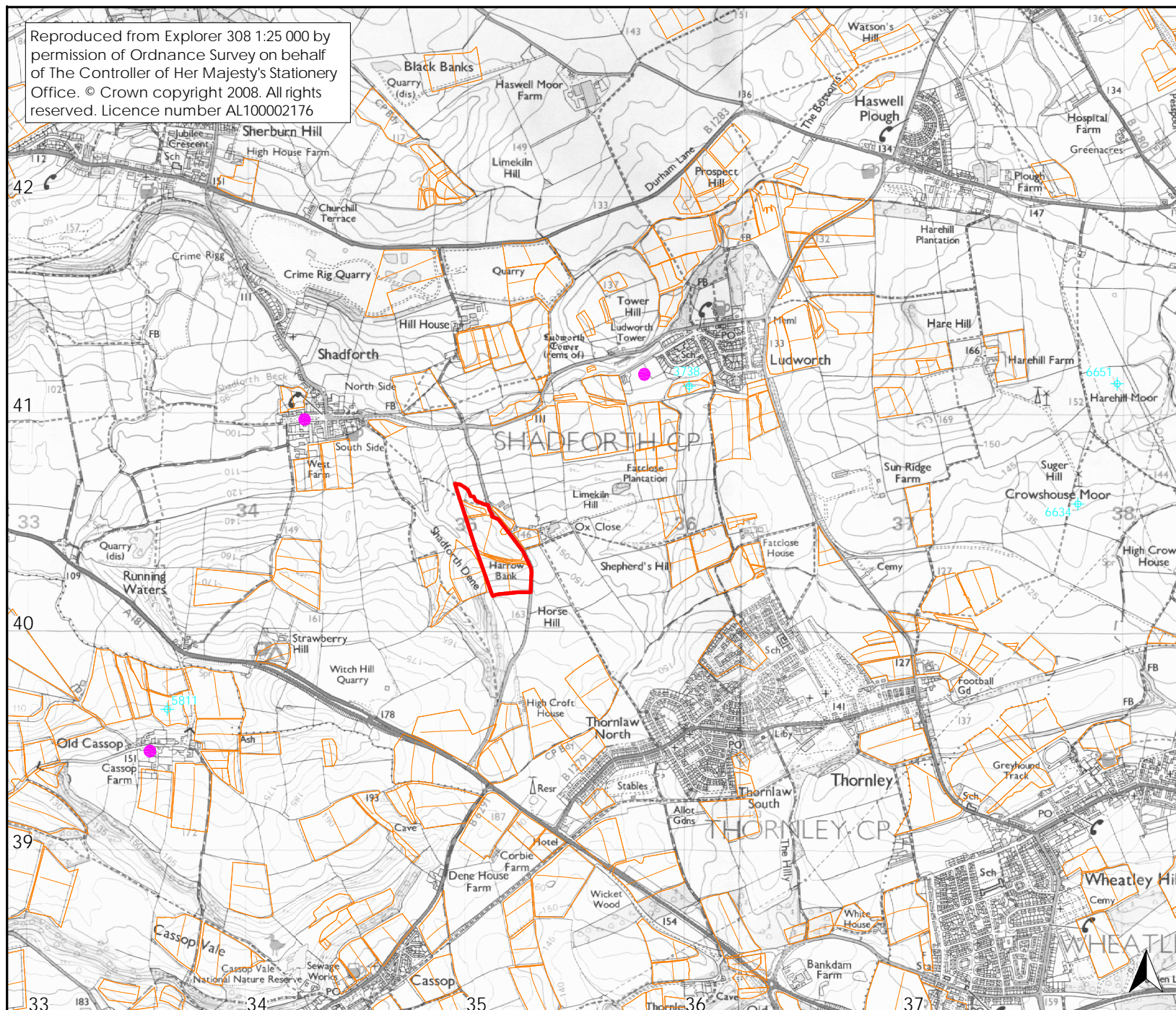
Ridge and Furrow  
Community archaeology project  
County Durham, Teesside,  
Tyne and Wear

topographic survey  
report 3109

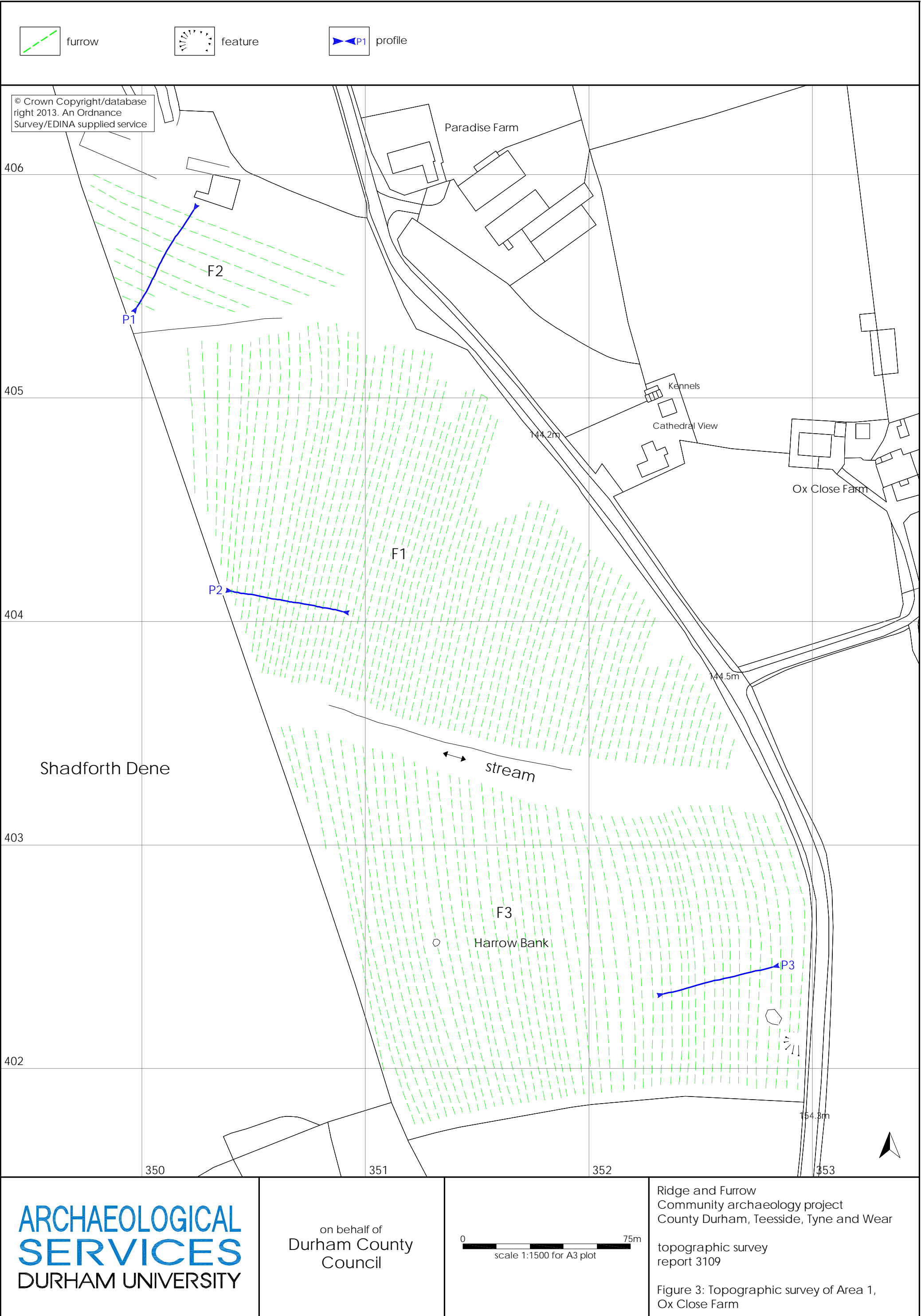
Figure 2: Survey Area 1 location,  
Ox Close Farm

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scale 1:25 000 for A4 plot

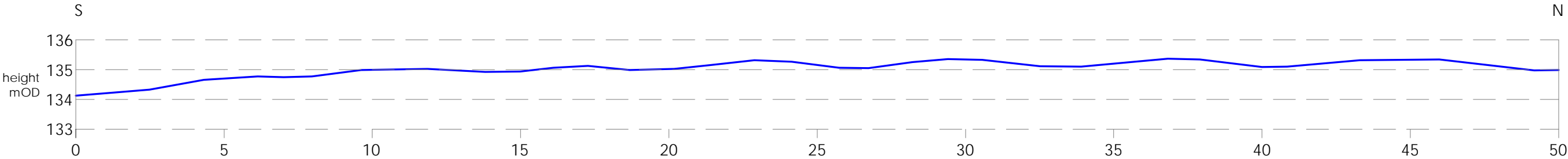
-  location of survey
-  ridge and furrow
-  site of medieval village
-  HER site



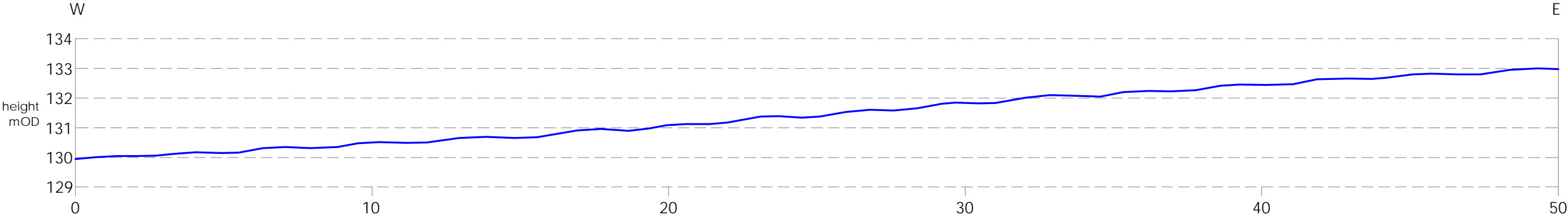




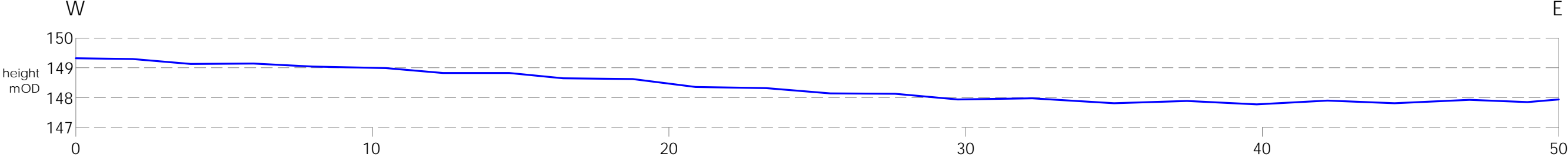
Profile 1

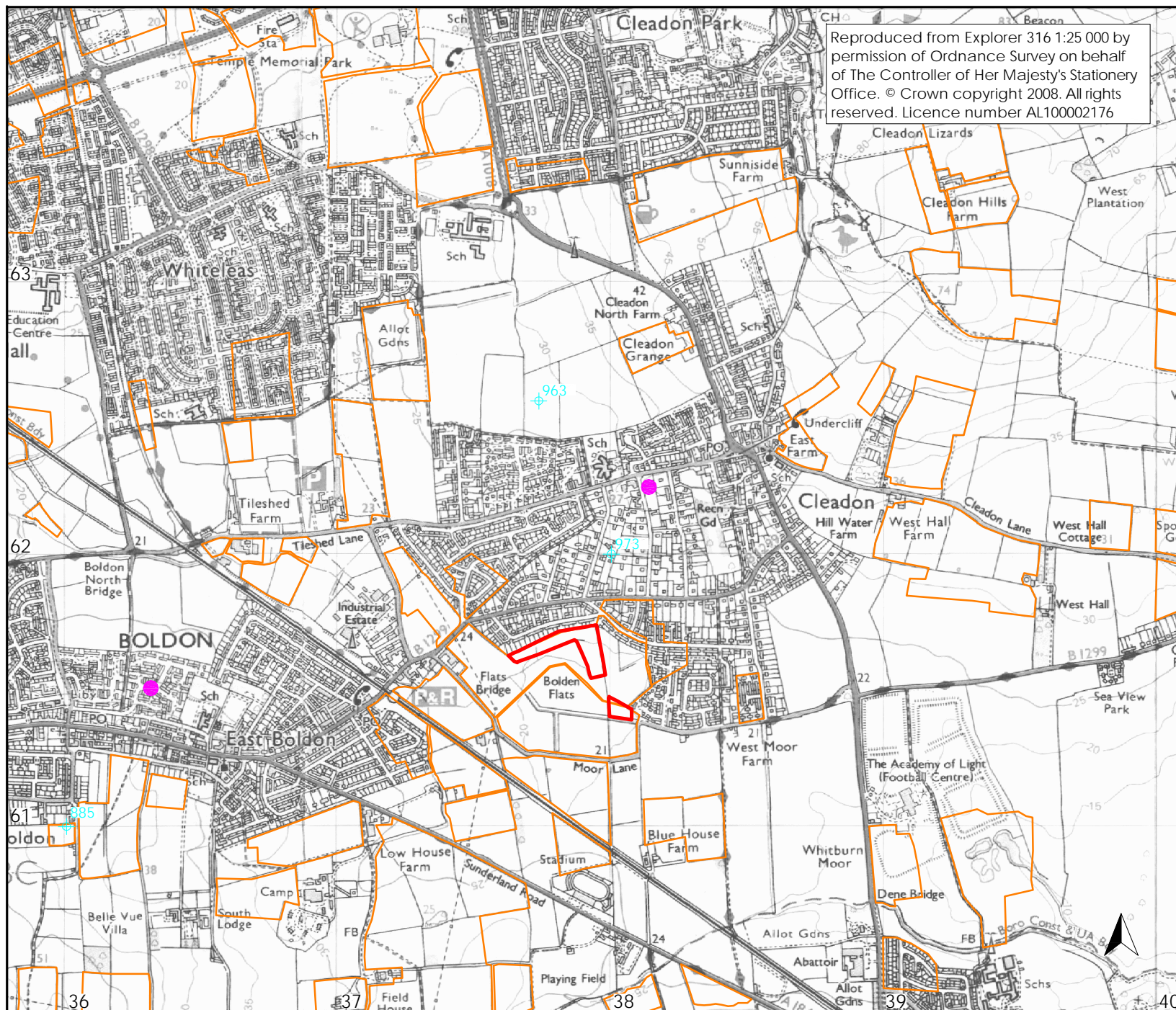


Profile 2



Profile 3





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



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**Durham County  
Council**

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Community archaeology project  
County Durham, Teesside,  
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Figure 5: Survey Area 2 location,  
Baldon Flats



-  location of survey
-  ridge and furrow
-  site of medieval village
-  HER site





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


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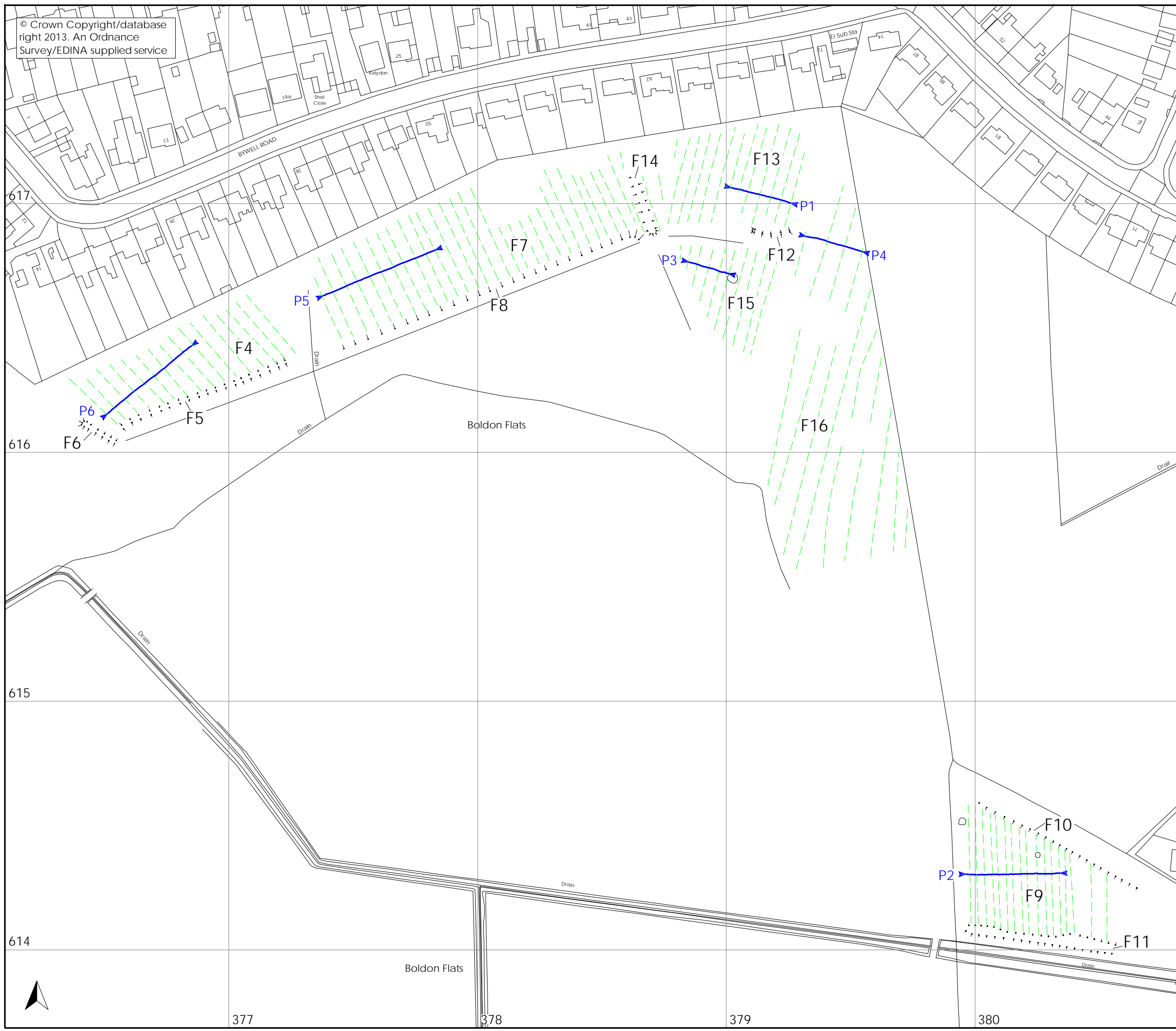
Ridge and Furrow  
Community archaeology project  
County Durham, Teesside,  
Tyne and Wear

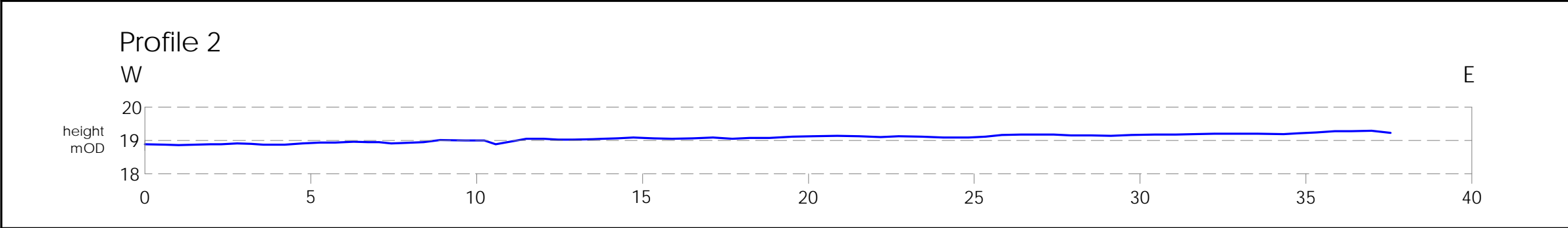
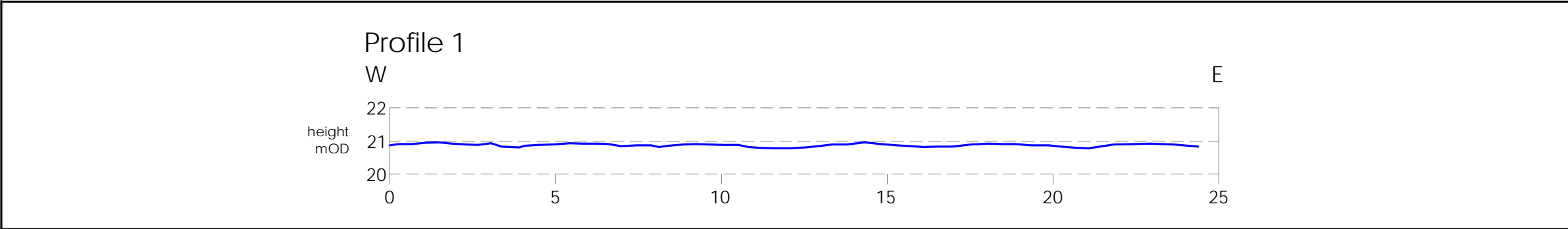
topographic survey  
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Figure 6: Topographic survey of Area 2,  
Boldon Flats



-  furrow
-  feature
-  profile



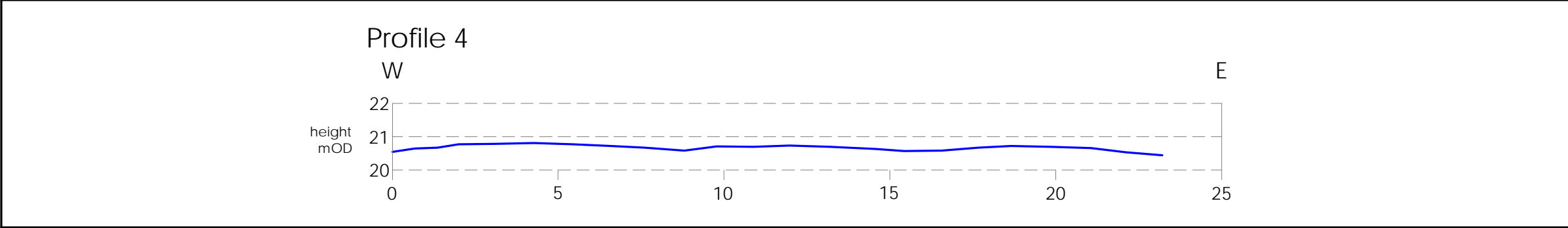
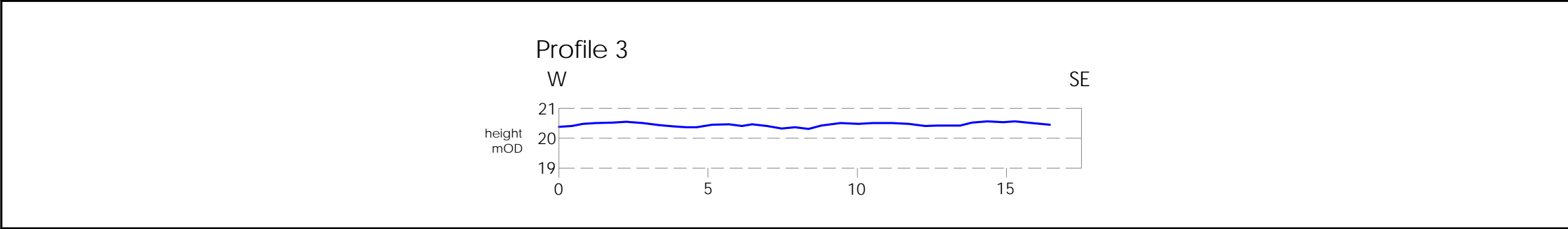


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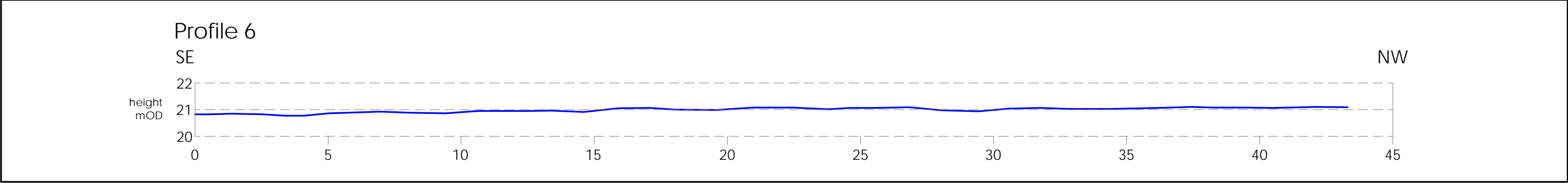
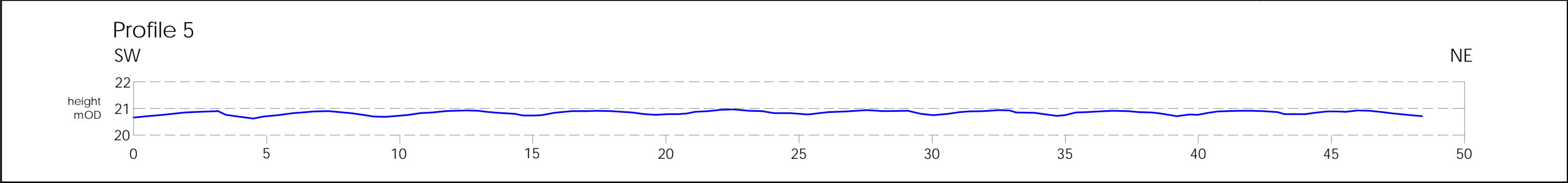
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Figure 7: Profiles of ridge and furrow from  
Area 2, Boldon Flats



0 7.5m  
scale 1:150 for A3 plot





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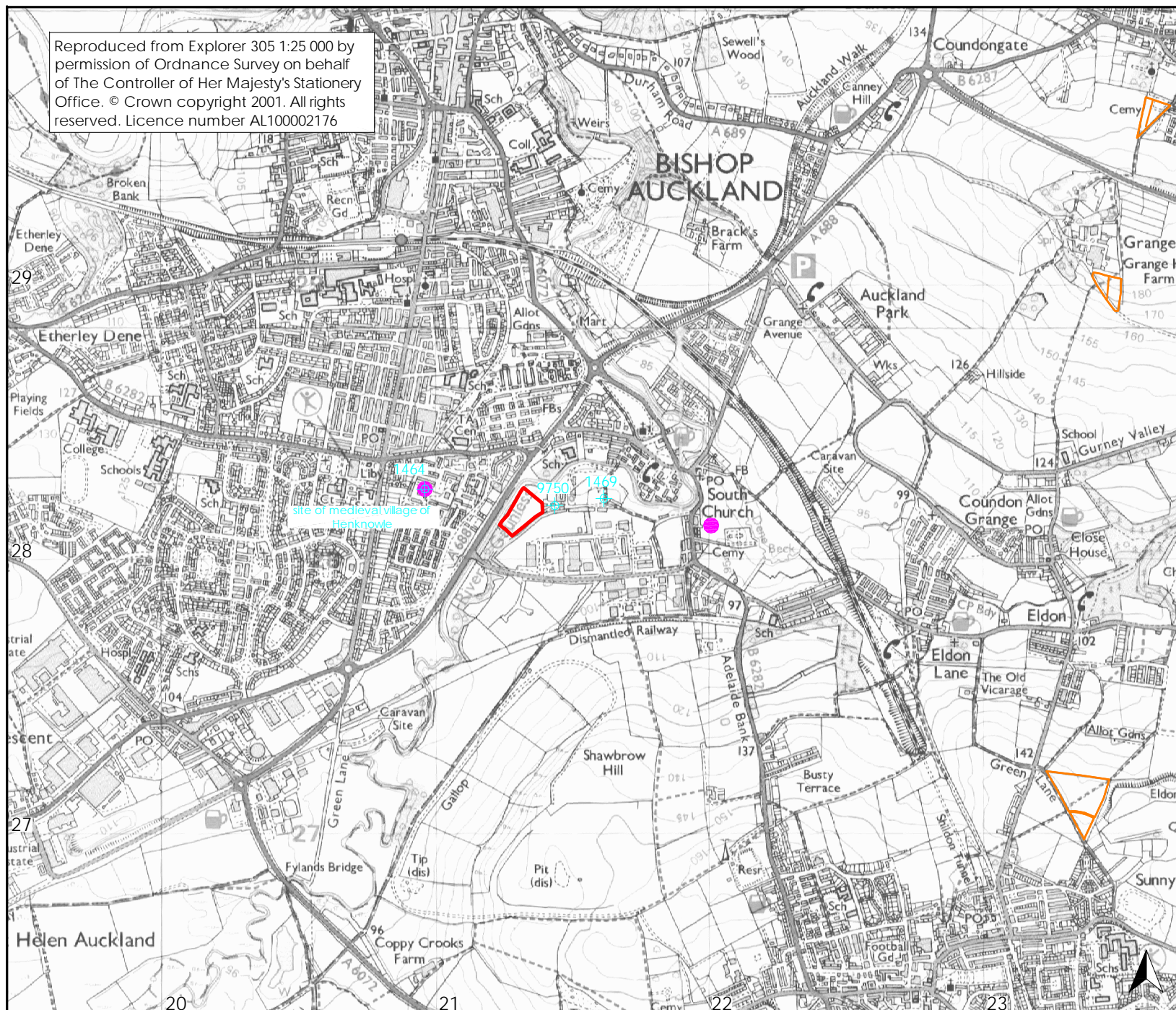
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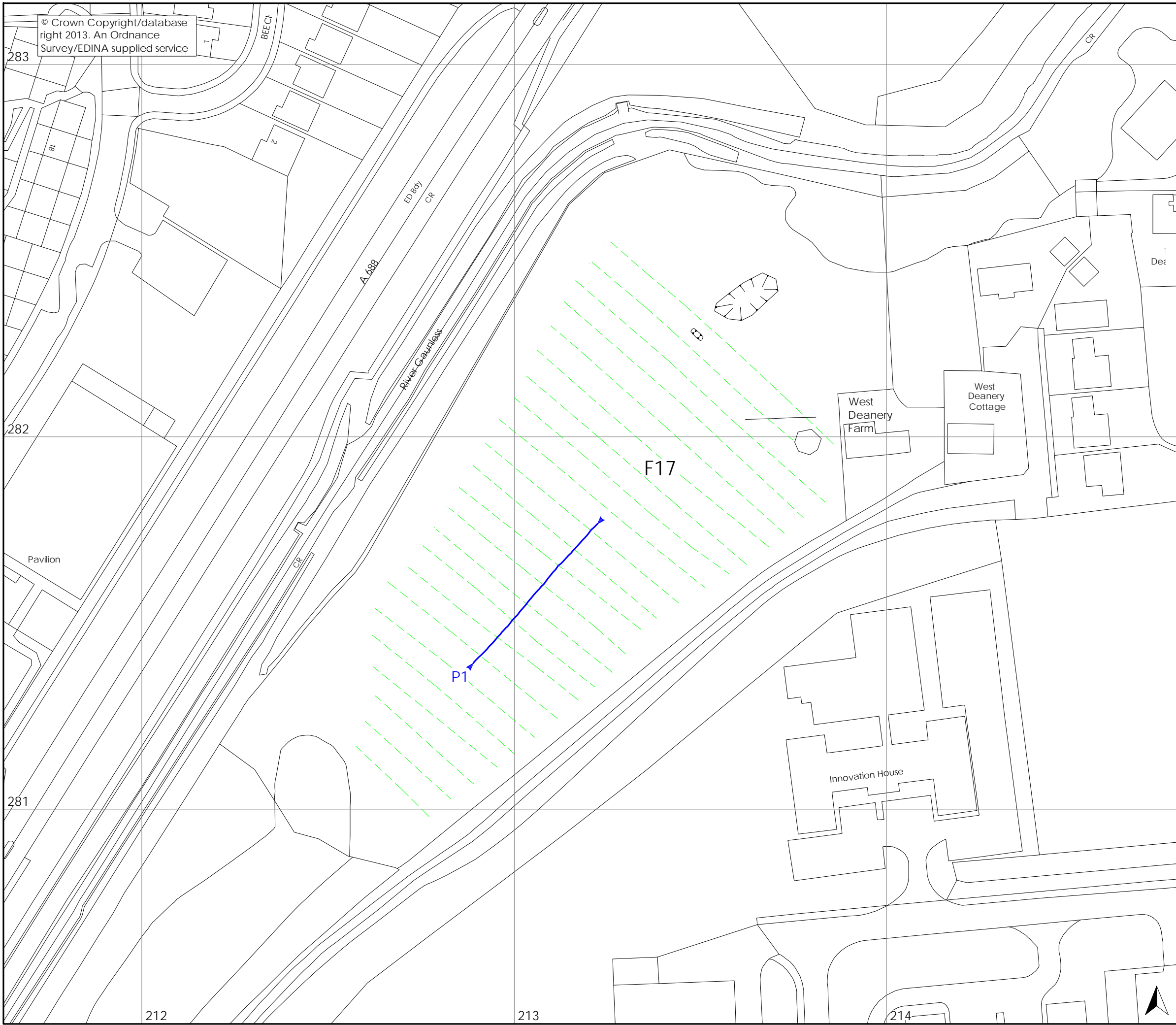
topographic survey  
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Figure 8: Survey Area 3 location,  
West Deanery

0 1km  
scale 1:20 000 for A4 plot

-  location of survey
-  ridge and furrow
-  site of medieval village
-  HER site





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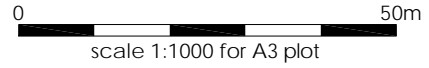
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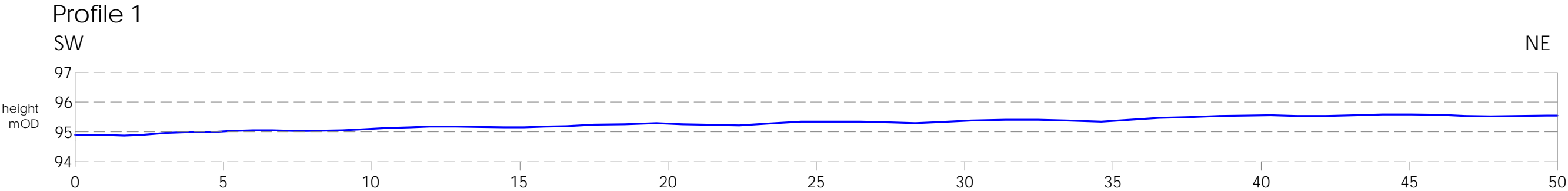
Figure 9: Topographic survey of Area 3,  
West Deanery



- furrow
- feature
- P1 profile







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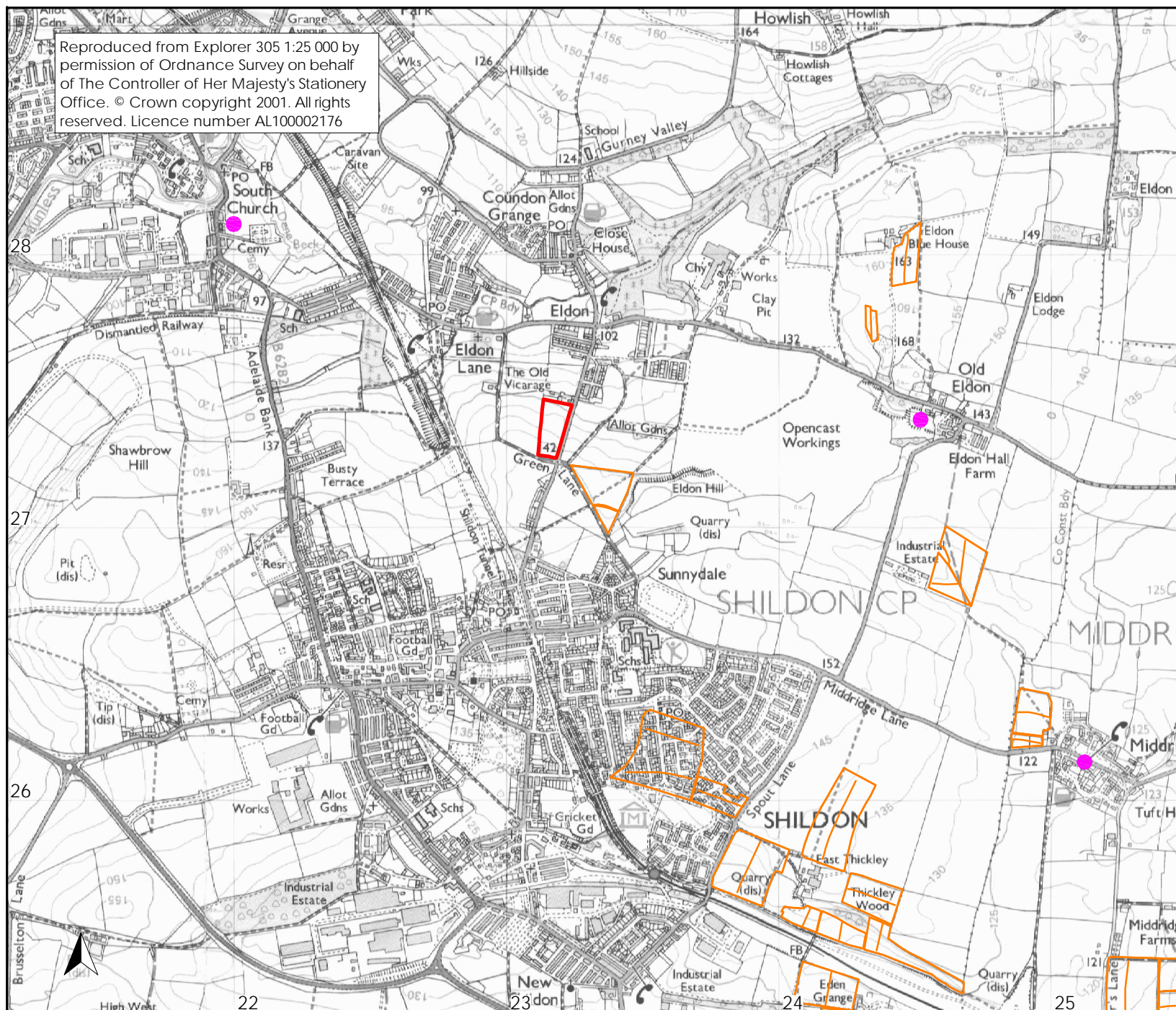
Ridge and Furrow  
Community archaeology project  
County Durham, Teesside,  
Tyne and Wear

topographic survey  
report 3109

Figure 11: Survey Area 4 location,  
Eldon Bank Farm

0 1km  
scale 1:20 000 for A4 plot

-  location of survey
-  ridge and furrow
-  site of medieval village



275

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


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Figure 12: Topographic survey of Area  
4, Eldon Bank Farm

0 50m  
scale 1:1000 for A3 plot

-  furrow
-  possible platform
-  profile

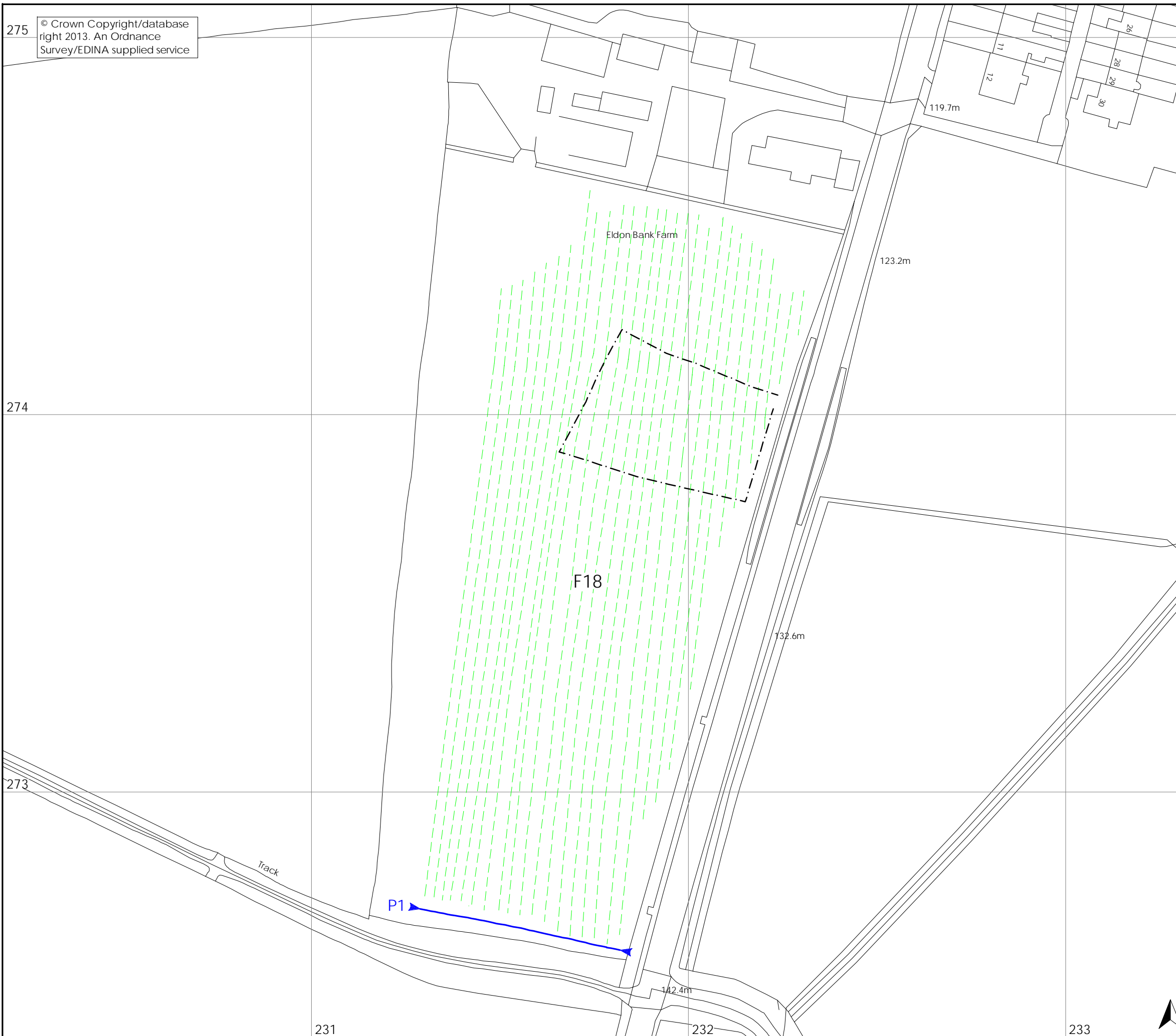
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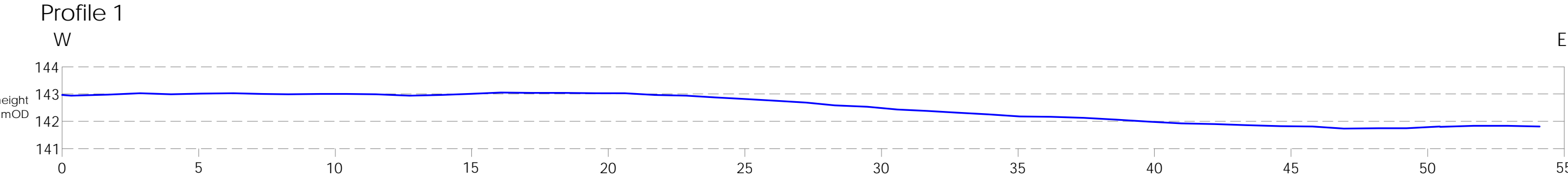
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




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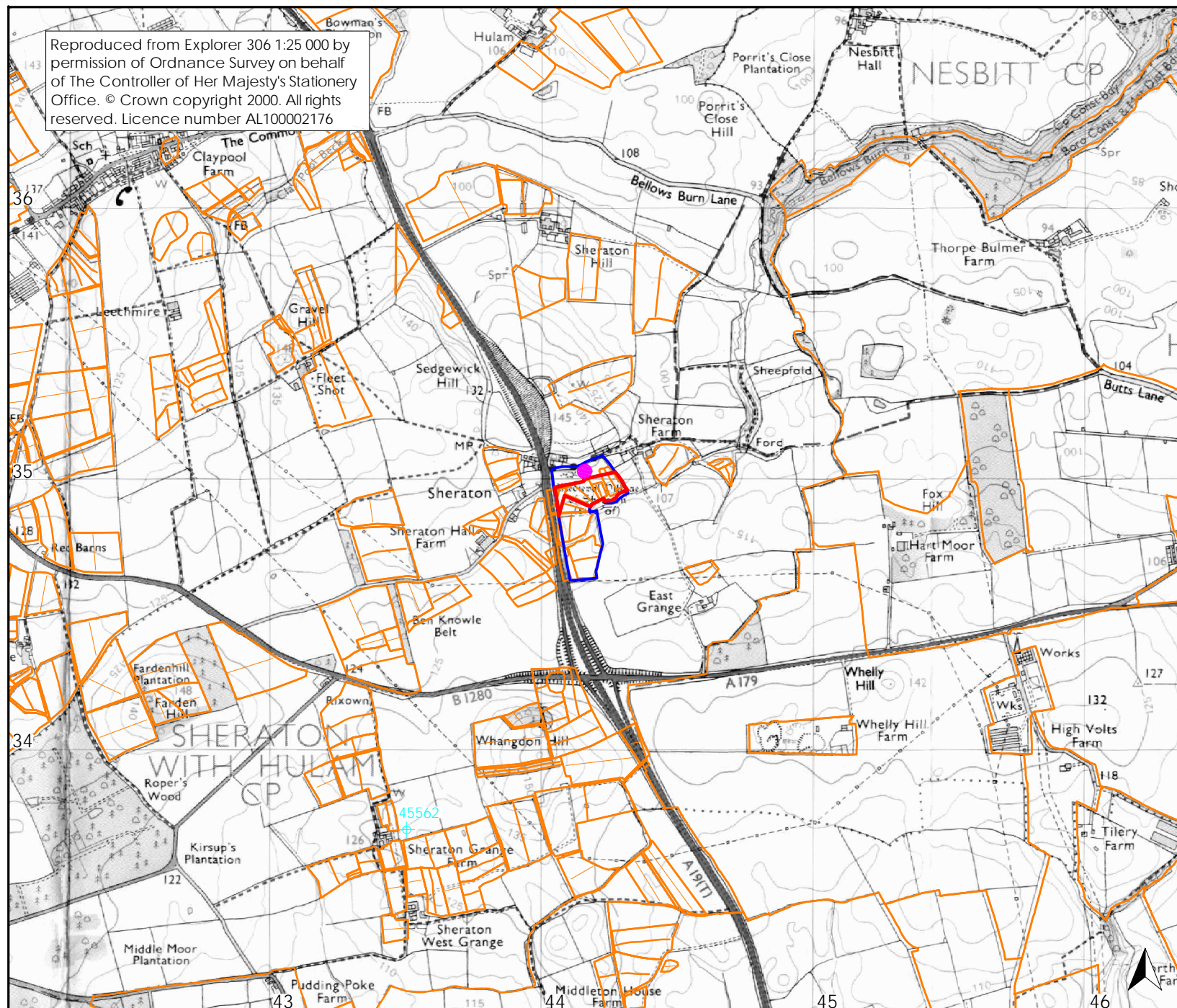
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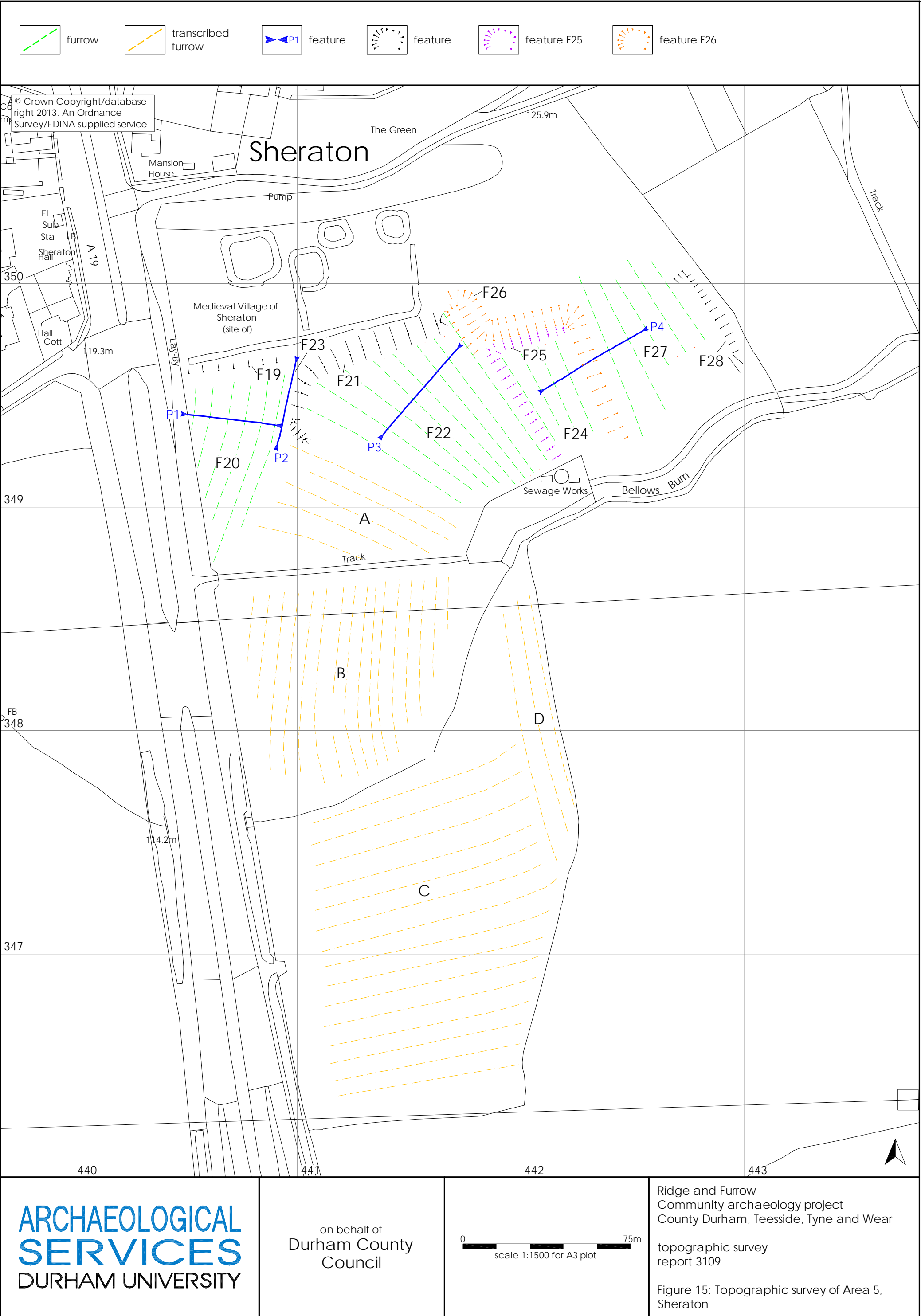
topographic survey  
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Figure 14: Survey Area 5 location,  
Sheraton

0 1km  
scale 1:20 000 for A4 plot

-  location of survey
-  ridge and furrow
-  site of medieval village
-  HER site
-  scheduled ancient monument





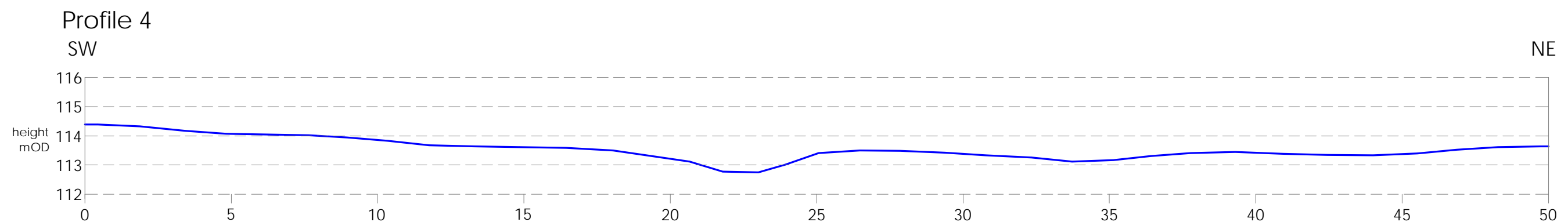
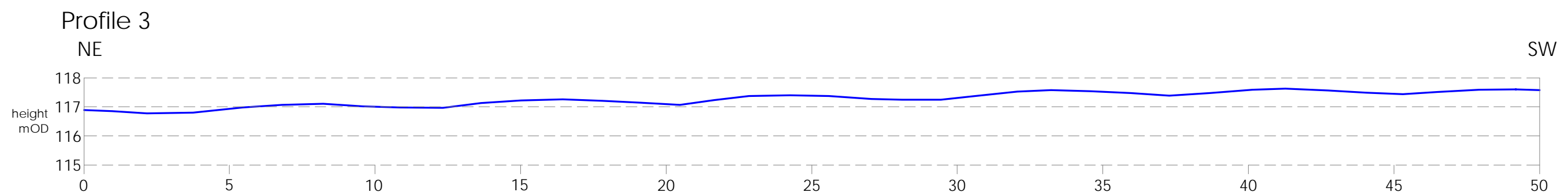
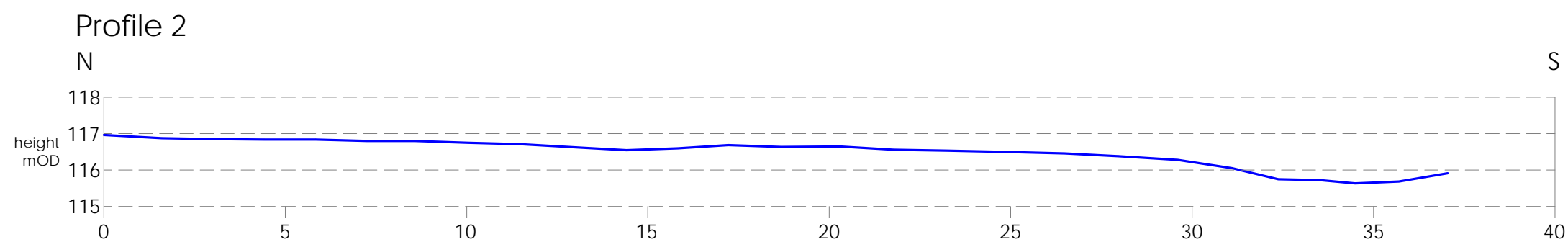
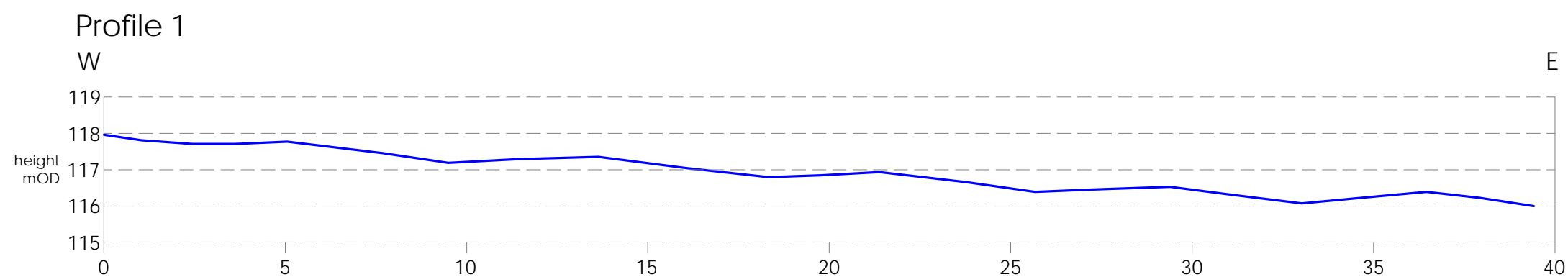
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Figure 16: Profiles of ridge and furrow  
from Area 5, Sheraton

0 7.5m  
scale 1:150 for A3 plot





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


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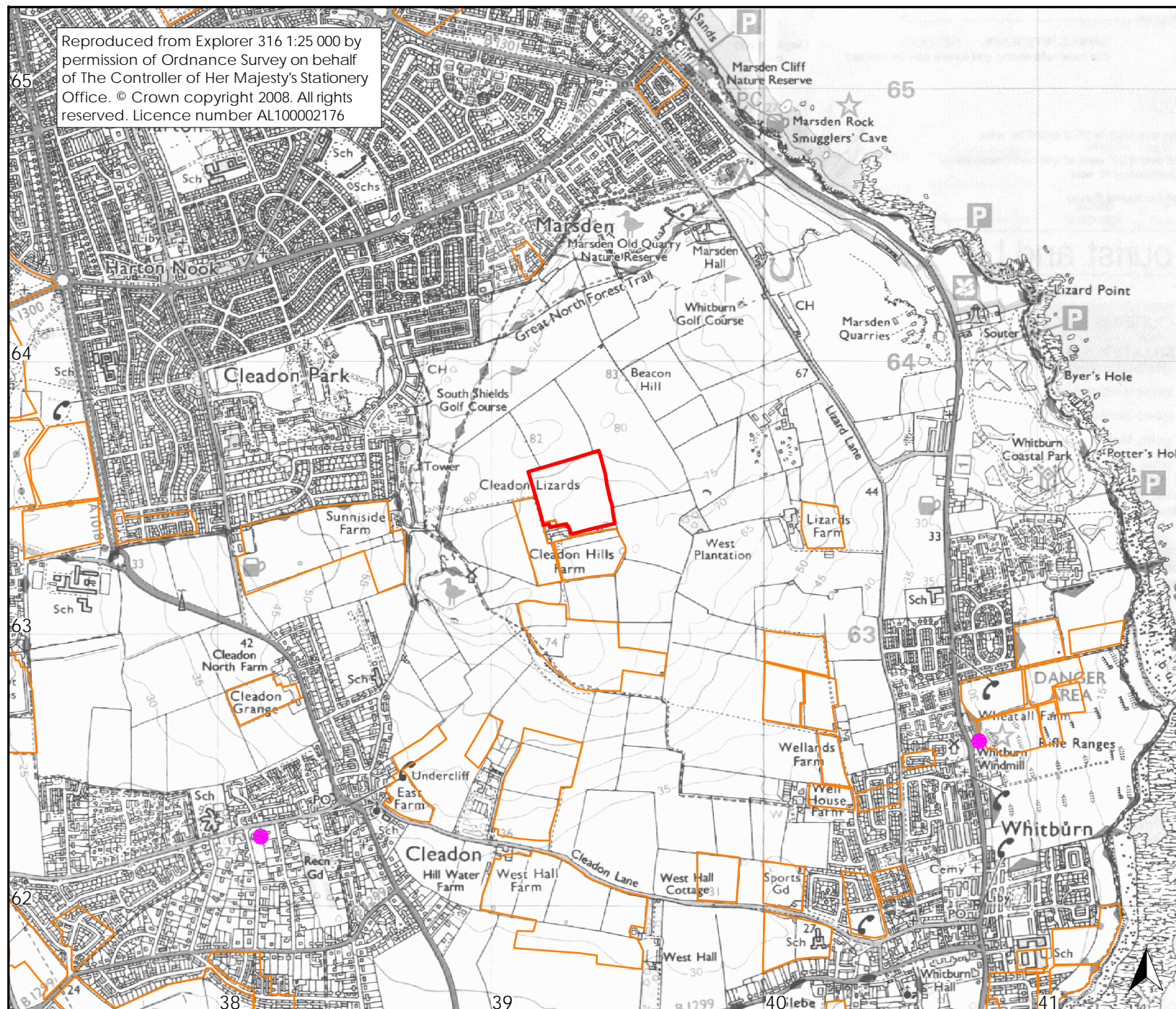
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Figure 17: Survey Area 6 location,  
Cleadow Hills Farm

0 1km  
scale 1:20 000 for A4 plot

-  location of survey
-  ridge and furrow
-  site of medieval village



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

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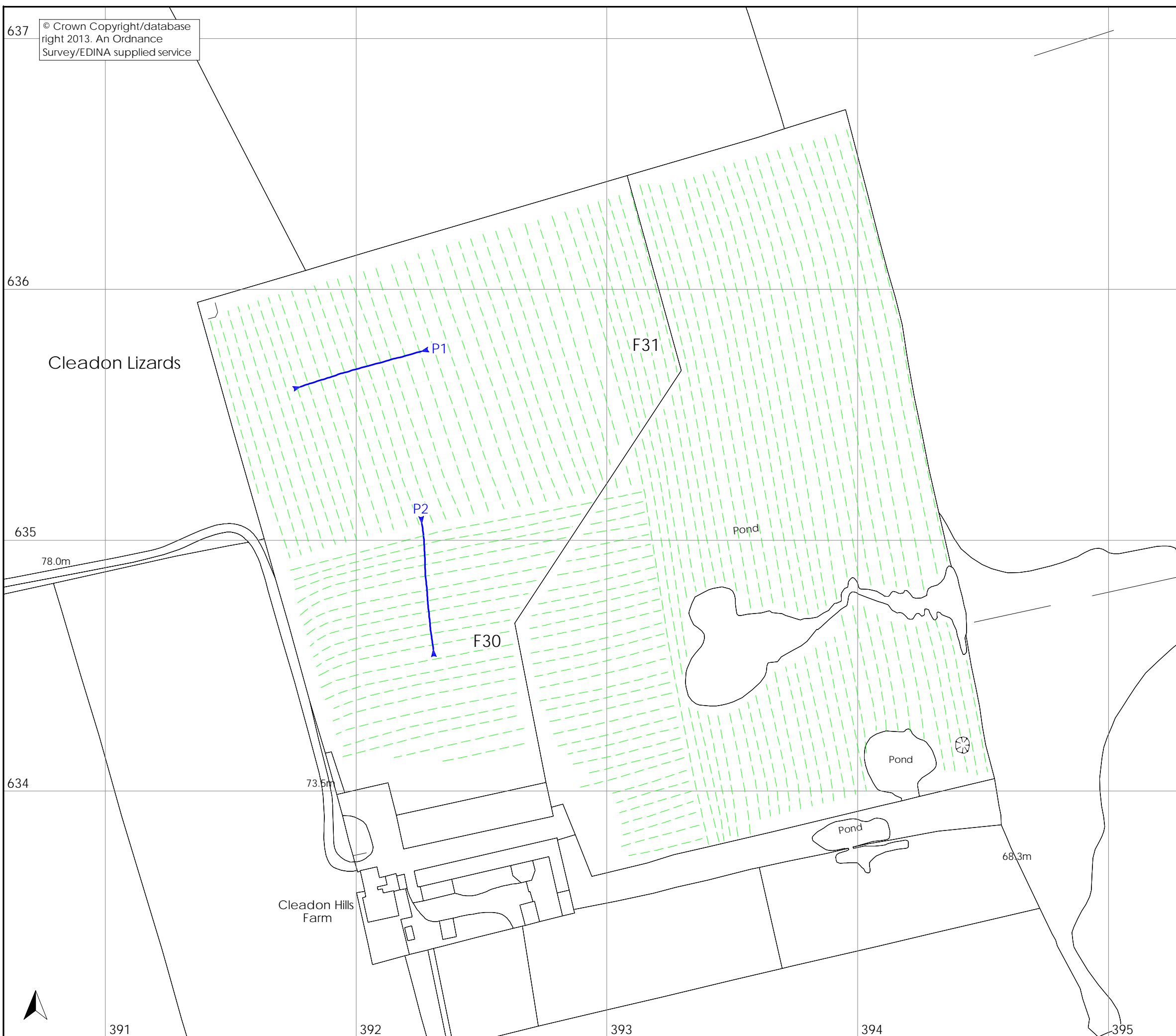
Ridge and Furrow  
Community archaeology project  
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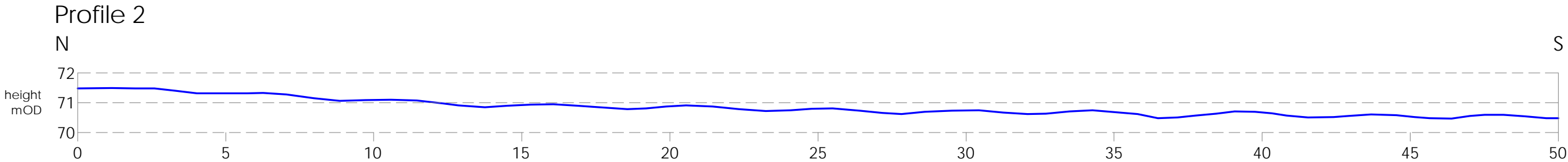
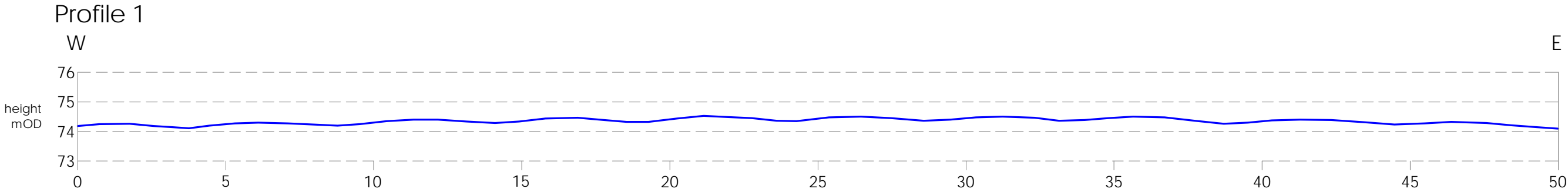
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Figure 18: Topographic survey of Area 6,  
Cleadow Hills Farm

0 75m  
scale 1:1500 for A3 plot

-  furrow
-  feature
-  profile







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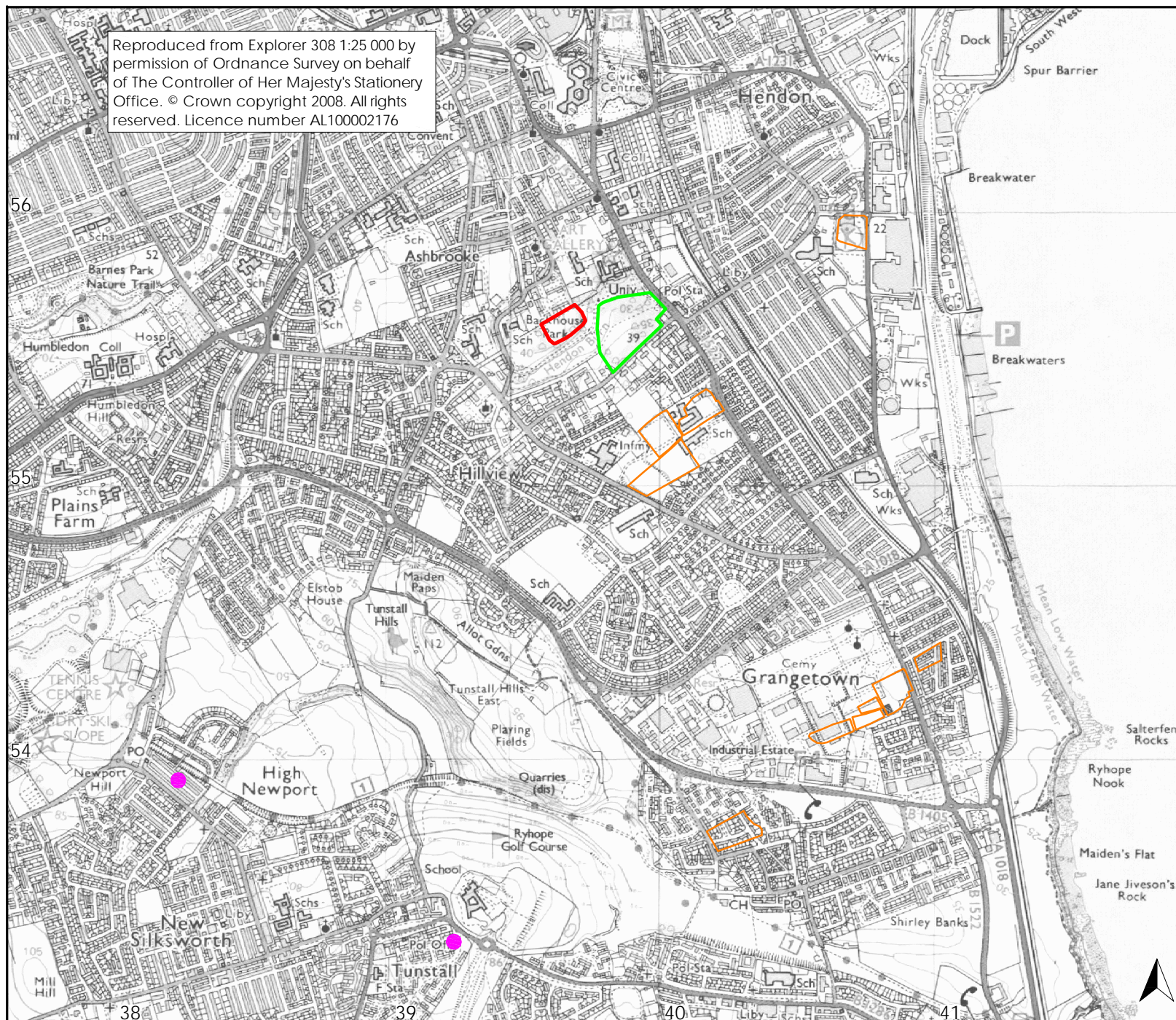
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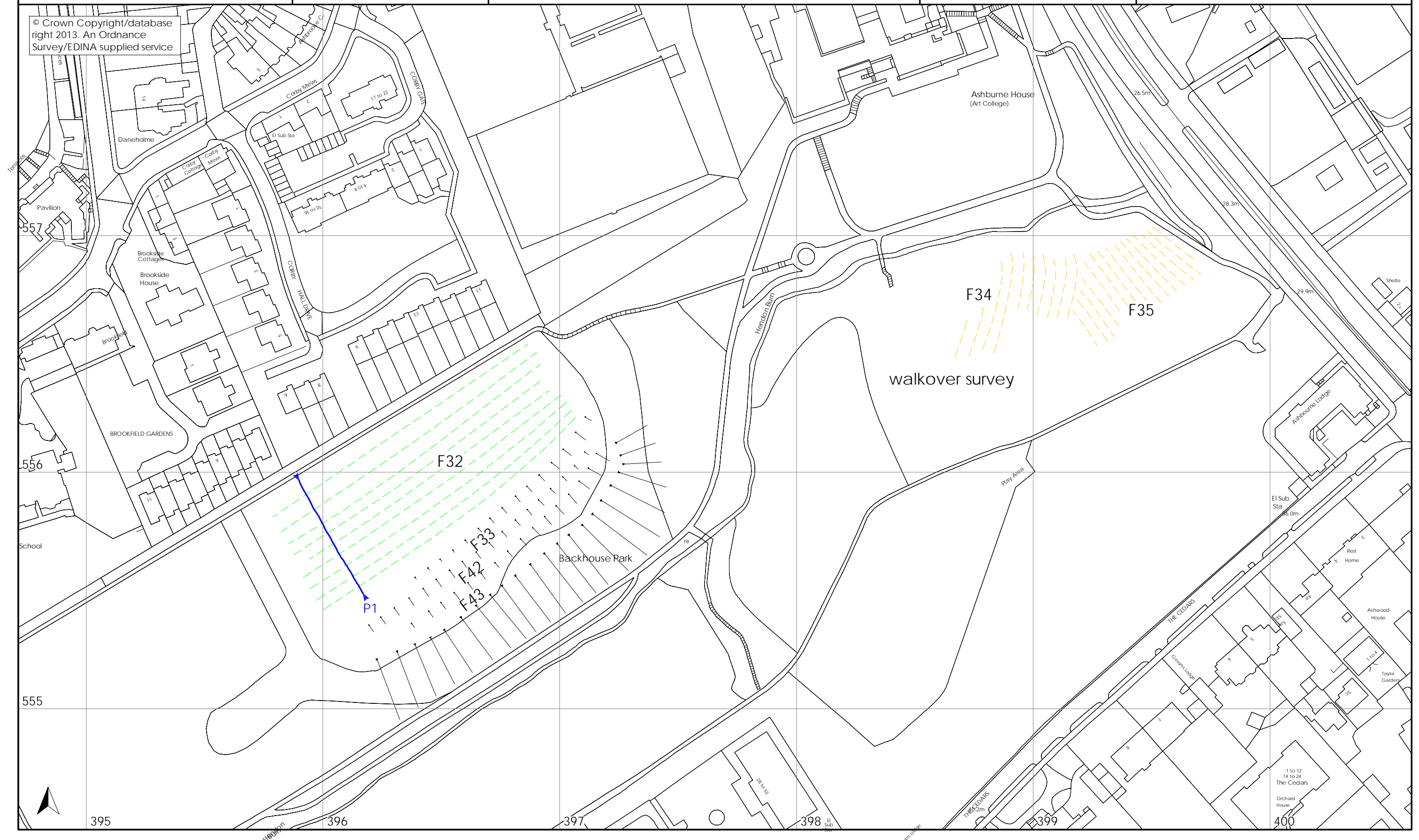
Figure 20: Survey Area 7 location,  
Backhouse Park

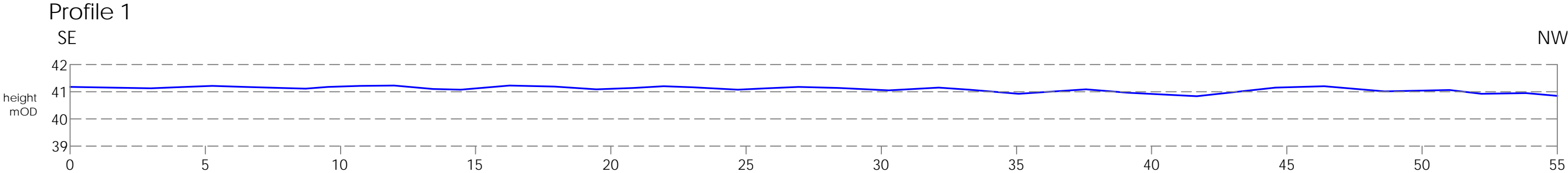
0 1km  
scale 1:20 000 for A4 plot

-  location of survey
-  walkover survey
-  ridge and furrow
-  site of medieval village

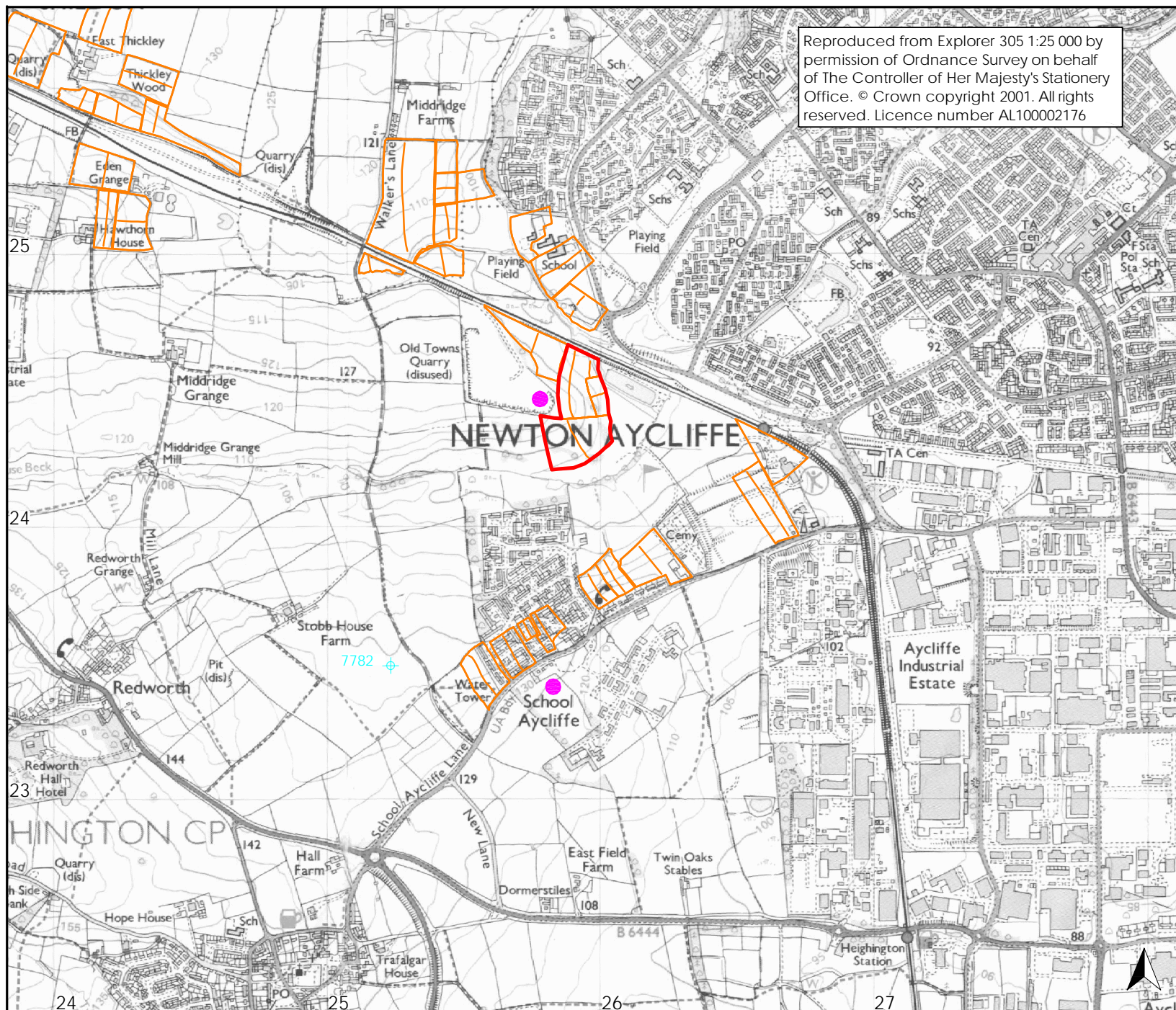












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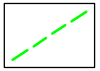
topographic survey  
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Figure 23: Survey Area 8 location,  
Oakleaf Golf Course

0 1km  
scale 1:20 000 for A4 plot

-  location of survey
-  ridge and furrow
-  site of medieval village
-  HER site



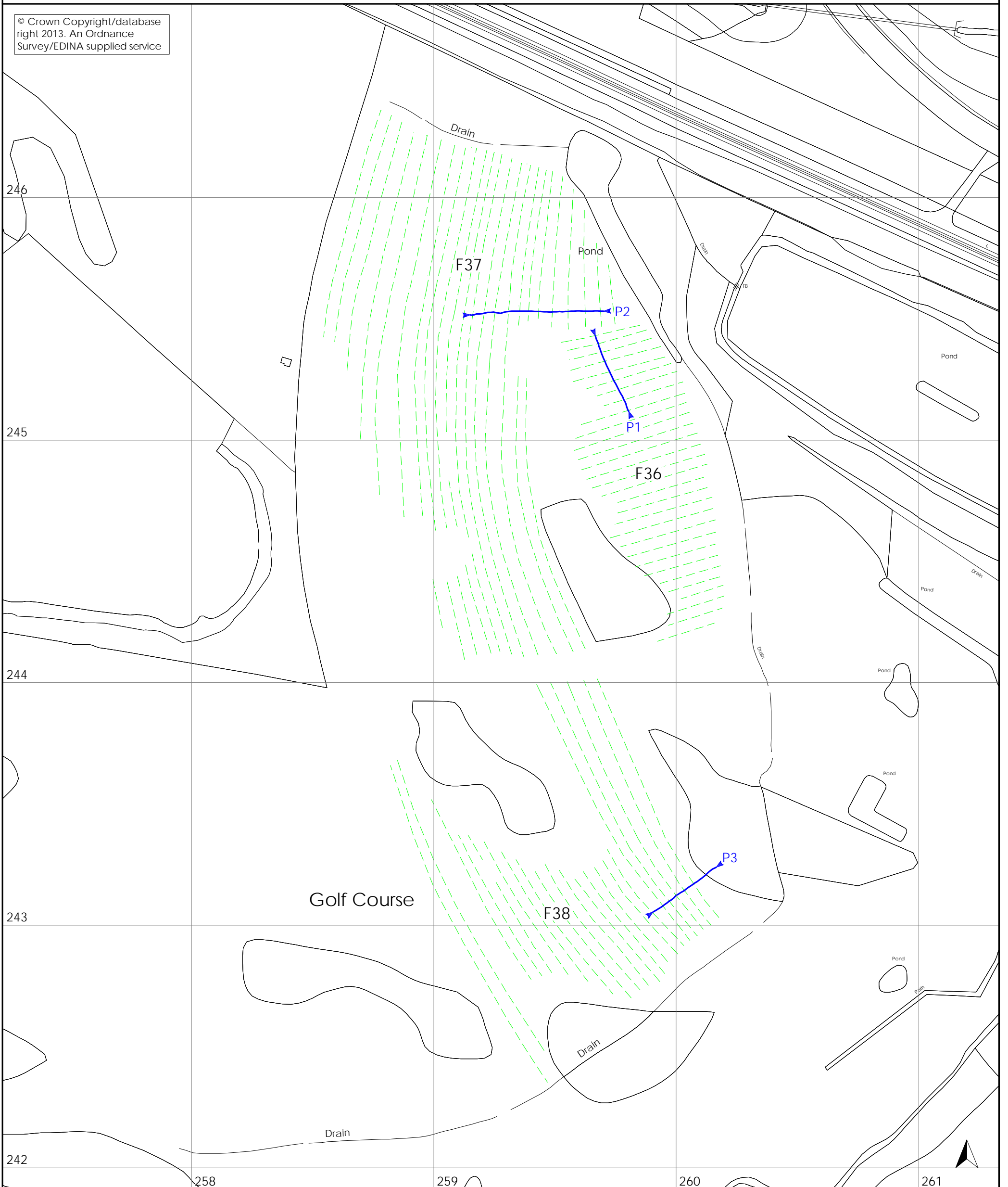


furrow



profile

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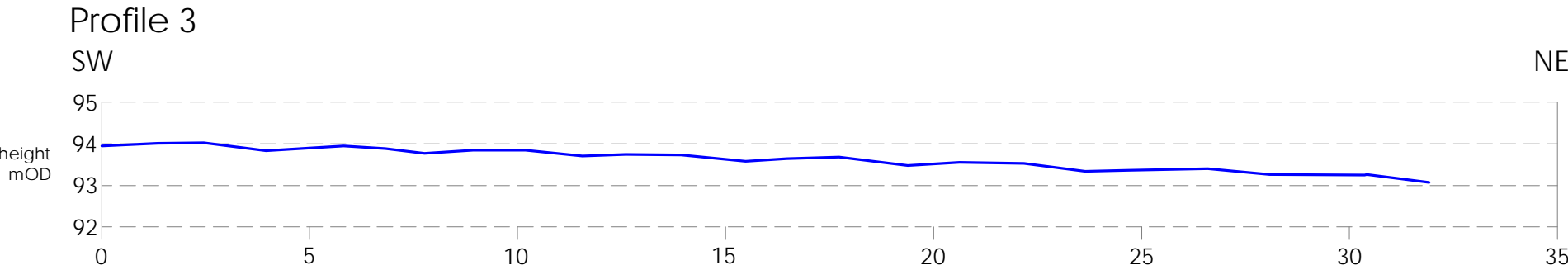
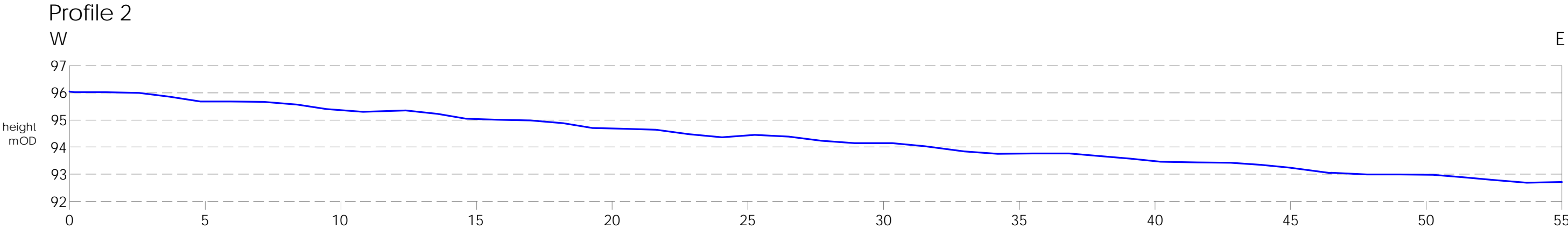
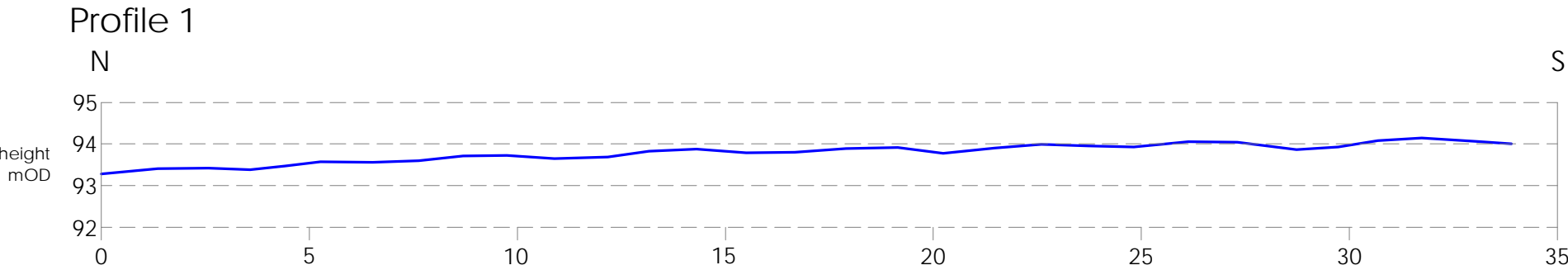
0 75m  
scale 1:1500 for A3 plot

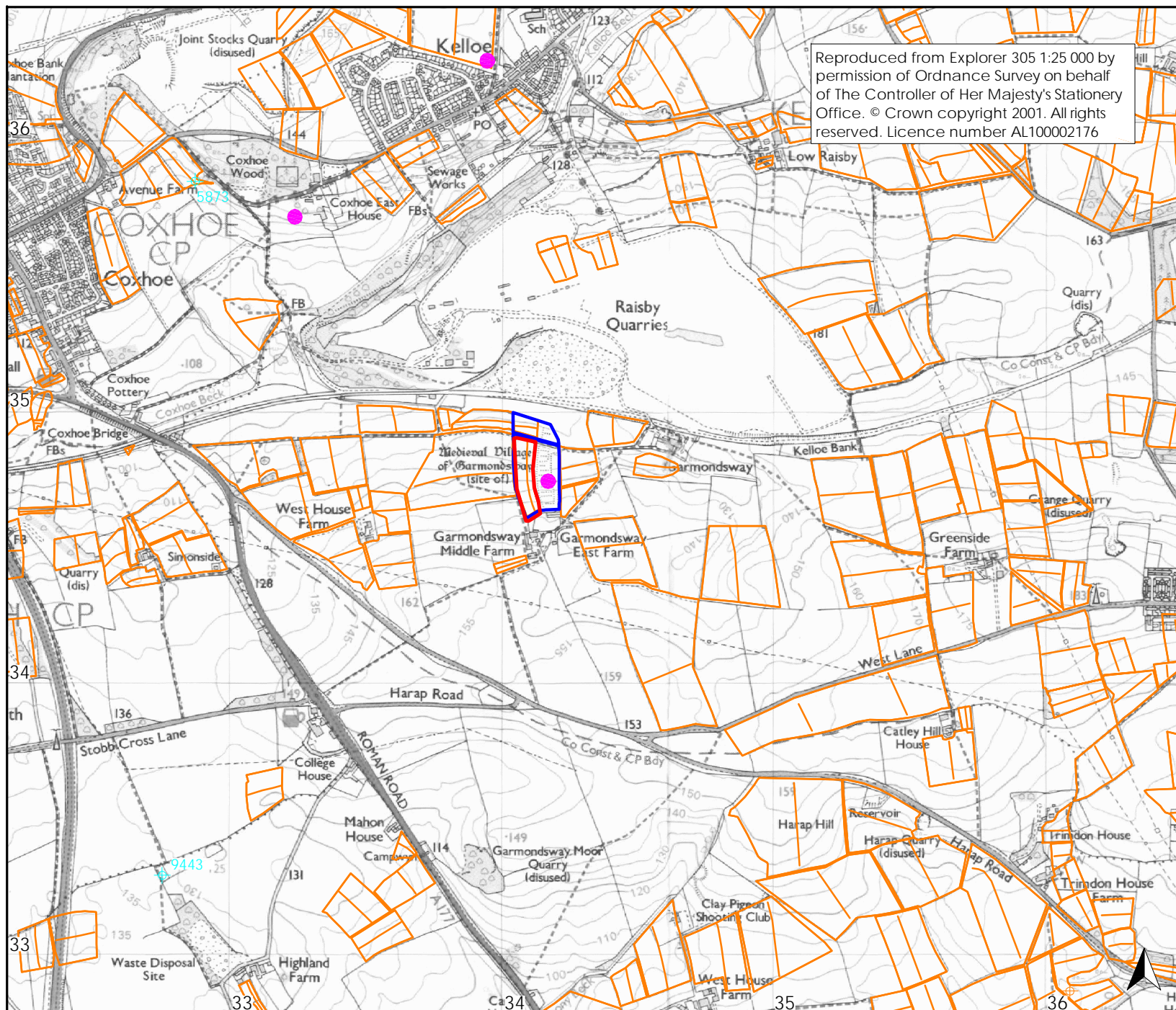
Ridge and Furrow  
Community archaeology project  
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Figure 24: Topographic survey of Area 8,  
Oakleaf Golf Course







# ARCHAEOLOGICAL SERVICES DURHAM UNIVERSITY






on behalf of  
Durham County  
Council

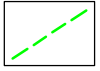
Ridge and Furrow  
Community archaeology project  
County Durham, Teesside,  
Tyne and Wear

topographic survey  
report 3109

Figure 26: Survey Area 9 location,  
Garmondsway

0 1km  
scale 1:20 000 for A4 plot

-  location of survey
-  ridge and furrow
-  site of medieval village
-  HER site
-  scheduled ancient monument



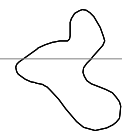
furrow



profile

350

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Survey/EDINA supplied service



Pond

349

P1

348

F41

Mediaeval  
Village of Garmondsway  
(site of)

347

346

Track

Garmondsway  
Middle Farm

340

341

342

343

**ARCHAEOLOGICAL  
SERVICES**  
DURHAM UNIVERSITY

on behalf of  
Durham County  
Council

0 75m  
scale 1:1500 for A3 plot

Ridge and Furrow  
Community archaeology project  
County Durham, Teesside, Tyne and Wear

topographic survey  
report 3109

Figure 27: Topographic survey of Area 9,  
Garmondsway

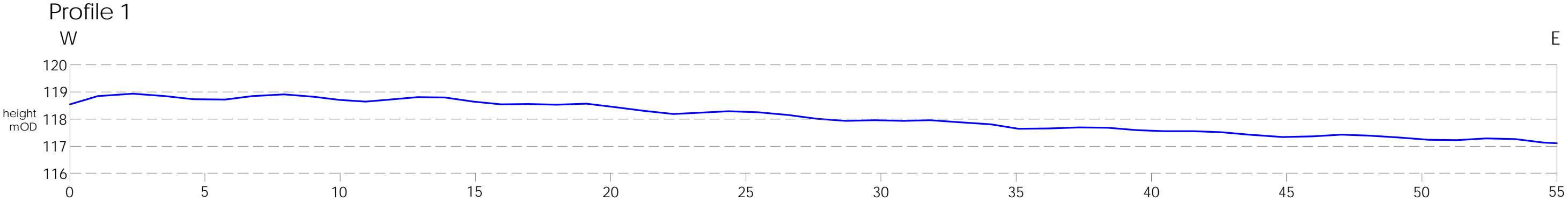






Figure 29: Ridge and furrow [F2], looking north



Figure 30: Ridge and furrow [F1], looking north-west





Figure 31: Ridge and furrow [3], looking south



Figure 32: Bank F6, looking west





Figure 33: Ridge and furrow F4, looking south-west



Figure 34: Headland F5, looking south-west





Figure 35: Ridge and furrow F7, looking south-west



Figure 36: Headland F8, looking south-west





Figure 37: Bank F14, looking south-west



Figure 38: Ridge and furrow F13, looking south-east





Figure 39: Bank F12, looking south-east



Figure 40: Ridge and furrow F15, looking south-east





Figure 41: Ridge and furrow F16, looking south-east



Figure 42: Ridge and furrow F9, looking east





Figure 43: Bank F10, looking north-west



Figure 44: Bank F11, looking west





Figure 45: Ridge and furrow F17, looking south-west



Figure 46: Ridge and furrow F18, looking south-west





Figure 47: Ridge and furrow F20, looking south-west



Figure 48: Headland F19, looking east





Figure 49: Headland F21, looking north-east



Figure 50: Ridge and furrow F23, looking north-east





Figure 51: Ridge and furrow F22, looking east-north-east



Figure 52: Headland F25, looking north-west





Figure 53: Ridge and furrow F24, looking north-east



Figure 54: Holloway F26, looking east





Figure 55: Ridge and furrow F27, looking east



Figure 56: Bank 28, looking north-west





Figure 57: Ridge and furrow F30, looking north-east



Figure 58: Ridge and furrow F31, looking north-east





Figure 59: Ridge and furrow F32, looking north-west



Figure 60: Strip Lynchets F33, F42 and F43, looking south-west





Figure 61: Ridge and furrow F35, looking south-west



Figure 62: Ridge and furrow F34, looking north-east





Figure 63: Ridge and furrow F36, looking south-south-west



Figure 64: Ridge and furrow F37, looking south-west





Figure 65: Ridge and furrow F38, looking east-north-east



Figure 66: Bank F39, looking west-south-west





Figure 67: Ridge and furrow F41, looking south