Field Systems in the High Weald

Historic England Project No: 7056

METHOD STATEMENT

July 2015

Version 1

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CONTENTS

1. INTRODUCTION

The following document provides the method statement for the development of a national methodology for characterising field systems in the present landscape. It sets out the approach to the field survey, archive research and the specification for the building of the GIS data base. The method builds on the approach to historic landscape characterisation but with the additional element of data obtained from field observation.

Objectives

- To identify suitable case study sites for assessing examples of different field systems through field work and desk-based assessment

- To build a GIS project with historic and contemporary data layered with the created Field System Data in order to facilitate an analysis of the data to be under taken.

2. METHOD

The method is formed of two interrelated parts, part 1. for identifying the case study sites and undertaking the research and part 2 for building the GIS project and adding the results.

2.1 The Case Study Sites

The project design put forward three to five case studies to be researched with some case study areas involving field survey others may be selected and examined based on archive/ desk-based research (inc. grey literature) only with no field work element. Field testing methods to supplement existing information will be explored. The two groups will be examined and compared to assess the outcomes for the identification of significant field systems characteristics. The selection of the case study areas reflects typical and atypical field system characters which contribute to fieldscapes in the Weald. The area of each case study must be large enough to represent the field system character being examined but not too large for undertaking the field work. The case study selection has also considered settlement - the presence of historic farmstead/s. Evidence and experience from other studies together with advice from Historic England has informed the sample selection. The selection of each case study area will be under-pinned by clear statements of criteria together with supporting historic evidence drawn from a desk-based assessment including historic map regression, aerial photographs, LiDAR, Biological surveys etc..

Examples of the criteria for the selection of case study areas are;-
*   ease of gaining permission for access and subsequent publication of the results;
*   atypicality/typicality of field system characteristics;
*   good supportive historic archive evidence for landscape continuity, farming systems used (livestock/arable/fruit) and land use, for example a well documented farmstead in a manor, or a well documented estate. This is to include a well illustrated map regression (including historic aerial photographs) for each case study area;
*   Presence of historic farmstead in locality;

      * A supportive local community group willing and able to become involved and engaged with the project.

      * Links with other landscape survey/monitoring work such as the High Weald Meadows Initiative.

Table. 1. Below lists the case study sites which have been identified by the team to date 02-07-2015. Key maps have been produced including the historic OS Epoch 1 map and the Tithe covering the case study area.

The boundaries of each study area have been selected based on both site ownership and completeness of the field system being researched. The sites being accessed by footpaths are larger given that not all the fields in the area will be examined.

2.1.1. Desk-base historic research

      Only the two National Trust sites have had any previous detailed archive research undertaken [REF at Level 3 Historic Landscape Surveys]. All the rest will be subject to a structured desk-based assessment of the key historic mapping and archives according to Level 2 HE guidance [REF]

Table 1. List of Archive Sources

Name of Source	Date - circa	Name of Source	Date - circa
LiDAR	2013	Place-names	C10-C15
RAF AP	1940	AS Charters	C9-C11
National Farm Surveys	1940	Published material	
OS Field Books	1890	HER (See section 3.below)	
OS Epoch Maps	1860-1910		
Tithe Apportionment	1840		
Tithe Map	1840		
OSDs	1800		
Estate Maps	1750s-1850s		
County maps	C18		
Estate/Farm Archives	C17-C20		

Table 2. Case Study Areas as agreed by HW AONB Field Systems Team 01-01-2015 [See Appendix 1 for copies of case study maps]

Full Field Survey Sites							
Name of Site	Parish	County	Field system type (HLC)	Owner - access	Grid Reference	Historic Farmstead	Archive Resource
Earlyes Farm	Wadhurst/Frant	East Sussex	Assarts	Private – full access	TQ 559871 132869	Yes	Some material, LiDAR
Little Scotney Farm	Lamberhurst/Goudhurst	Kent	Regular planned from den	NT – full access	TQ 569134 136202	Yes	Researched
Batemans	Burwash	East Sussex	Cohesive assarts ?	NT – full access	TQ 566937 123822	Yes	Researched

Field survey by footpaths							
Name of Site	Parish	County	Field system type (HLC)	Owner	Grid Reference	Historic Farmstead	Archive Resource
Great Dixter	Northiam	East Sussex	Regular informal fields	Private and Trust – footpath access	TQ 582123 124774	Yes	None undertaken
Benenden village-south	Benenden	Kent	Regular informal & assarts	Private – footpath access	TQ 580595 132611	Yes	None undertaken
Townhouse & Great Lynwood Farms	Ardingly	West Sussex	Cohesive and aggregate assart fields	Private – footpath access	TQ 534030 129138 & TQ 534995 128763	Yes	None undertaken
Pococksgate Farm	Frant	East Sussex	Co-axial Fields	Private – footpath access	TQ 558684 133366	Yes	None undertaken

Other suggested sites							
Name of Site	Parish	County	Field system type (HLC)	Owner	Grid Reference	Historic Farmstead	Archive Resource
Ropers & Cheffins Fields, Sandhill Lane,	Barns Green	West Sussex	Co-axial Fields	Private			

2.1.2. Method of Field Survey

A standardised field recording sheet has been prepared [See Appendix IIfor copy]. This will form the basis for collecting the field and boundary attributes which will then be uploaded into the GIS Attribute Table. The design of the form and the GIS ARCMAP project has gone hand in hand in order to iron out any issues before the commencement of the field survey proper.

An assessment of the biodiversity of the grassland of the case study sites is also being undertaken by Kate Ryland and this data will be linked to that of the field systems data. [EXPAND ?]

2.2. GIS Data for Project

The GIS project and resulting shape file/s needs to be;-
a.   easily uploaded into county HERs
b.   straight forward to use with current GIS ArcMap
c.   needs to be compatible with HE (EH) MiDAS guidelines and specifications for data collection and handling. However this may be withdrawn by HE. Not know what will replace it.
d.   Also needs to be compatible with INSPIRE [the Government's Data standards]

The names of different field systems and the types of boundaries have different and sometimes confusing names. In Appendix III of this document there is a glossary of terms taken from the former English Heritage Thesaurus of Monument Types together with definitions from the Sussex and Revised Kent Historic Landscape Characterisations.

The following section details the method for collating the data, in order to build the GIS ARCMap project, then undertaking the field work, the results of which are then transferred to GIS .shp files and attribute table.

The GIS Field Systems project will comprise two parts, namely the data which informs the attributes for Field Systems and the .shp files with the accompanying attribute tables for assigning the attributes to the individual fields comprising the field system.

The following maps and data sources need to be GIS compatible, easily uploaded and stored on to GIS ArcMap project as layers.

Table 2.   Current and Historic Data to inform attributes for Field systems

Description	Source	Format
Physical / modern data		
Geology	HW	
Topography	HW	
OS MasterMap	HW/KCC/ESCC/WSCC	Digital
Current OS mapping	Ditto	Digital
Current Aerial Photos	Ditto and or Google Earth	Digital
Historic Environment Records	KCC/ESCC/WSCC	Digital
Historic Landscape Characterisation	Ditto	Digital
Historic Farmstead Characterisation	Ditto	Digital
LiDAR	ESCC	Digital
Revised Ancient Woodland Inventory	HW	
Biological Records	KBRO/SBRO	
Hedgerow Surveys	Ditto	
Historic Data		
OS Epoch Mapping 25" Landmark	HW	Digital
Parish Tithe Maps	HW	Digital
Parish Tithe Apportionments	KHLC TNA KAS	Paper, microfiche,Digital
Ordnance Surveyor's Drawings	HW	Digital
Estate Maps	HW	Paper + Digital
OS Field Books	TNA Kew	Paper
National Land use Survey (Dudley Stamp)	TNA Kew	Paper
Farm Surveys (War Office)	TNA Kew	Paper
RAF AP	KCC/ESCC/WSCC Google Earth	Digital
High Weald AONB derived data		
Ancient routeways	HW	Digital

2.3. GIS Field System Data

The project needs to be thorough in its collection of data for all field system attributes in order for the significant attributes to be identified. How the GIS data layer/s are created depends on the structure and form that is the best given the range of attributes identified (see ? below) and also how it best will fit for uploading on the county HERs.

For the HERs it may be that only one layer of polygons is digitised which can subsequently be converted to an event point for uploading on the HER. Or it could be a number of linked GIS layers comprising polygons, lines and points which are linked to a polygon covering the whole of the Field system surveyed. [What are the technical options ?]. Technically it is possible in GIS to create a polygon which can then be copied and converted to lines which still retain a link to the original polygon.

It has been suggested that the Field Systems project is stored under the Landscape Tab in the HERs, a tab which is used by East Sussex HER but not Kent or West Sussex. [For a more detailed discussion on the relationship of the Field System Project and the HERs see Section ? To be written].

The GIS Attribute Table needs to be within ArcMap and not form an attached Access database as this makes analysing the data more difficult in the future. It is also possible to create commands in the Table which allow for the use of drop down boxes with names in to be automatically added to the field in the table, saving on time, effort and to avoid typing errors.

b.   Desk-based data

Extracted and synthesised from the sources listed in Table 2. above. Most of this information will form the first part of the table of attributes for the Field polygon.

c.   Field Data

Field systems data collected from field walking case study areas using a prepared field recording sheet [See section ?]. This sheet/s will be completed by the field surveyor/s and then passed to the GIS technician for uploading into the GIS project.

d.   Drone Data

This would be collected separately and then attached to the above using a mutually inclusive id number [Matt ? Expand please]

e.   Ecological meadows Data

This would be collected separately and then attached to the above using a mutually inclusive id number or linking 'Field' in the attribute table [Kate ? please expand]

Use should be made of hyperlinks from the GIS attribute table, polygons and lines to photographs of field system features as well as to the final field system character descriptions.
The following diagram sets out the structure of and relationship of the GIS Field Systems Data.

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Figure 1. Structure of GIS Project

STRUCTURE OF GIS PROJECT

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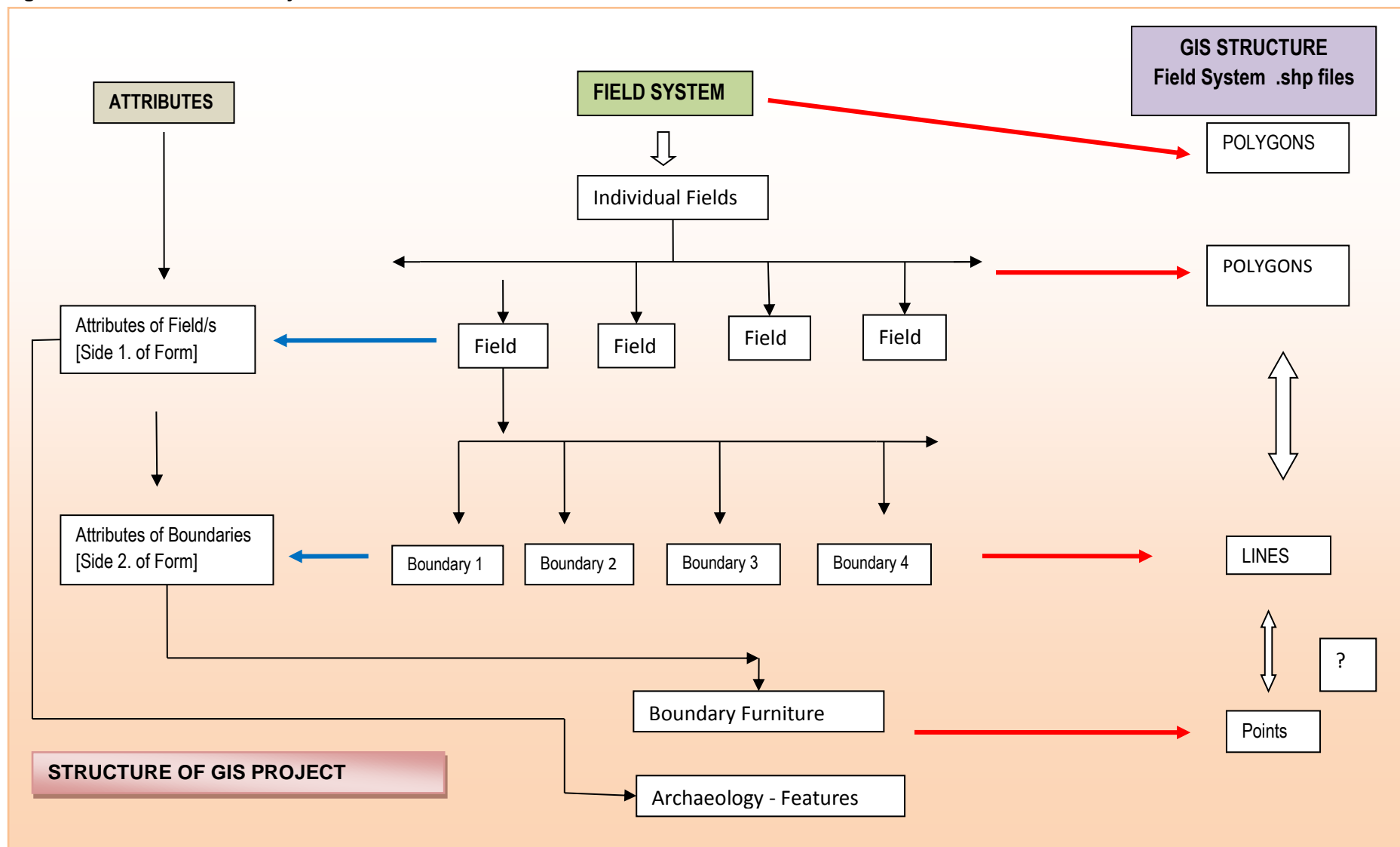
2.4. STRUCTURE OF ATTRIBUTE TABLE

2.4.1. Introduction

The final design and structure of the table will be decided after completion of a case study field work so that all problems and issues can be ironed out before the final GIS Data layer/s is built.

It is planned that this will be undertaken by GIS intern under the direction of mentors from the project team. The completed field survey sheets will scanned as part of the project archive and the information from them transferred to the GIS. In the final GIS archive each field polygon and boundary will be hyper-linked to its original field recording sheet.

See section 4. In this report for a summary table of all the attributes.

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Figure 2. Structure of Field System Data

STRUCTURE OF FIELD SYSTEM DATA

FIELDSCAPES

CHARACTER/TYPOLOGY ← FIELD SYSTEMS ← ATTRIBUTES

FIELDS

| SHAPE | SIZE | ORIENTATION | PHYSICAL | BOUNDARIES | FIELD NAMES | RATIONALISATION |

| TYPE | FUNCTION | MORPHOLOGY | EARTHWORK | VEGETATION | FURNITURE | FIELD ARCHAOLOGY |

SEE BELOW FOR DETAILS
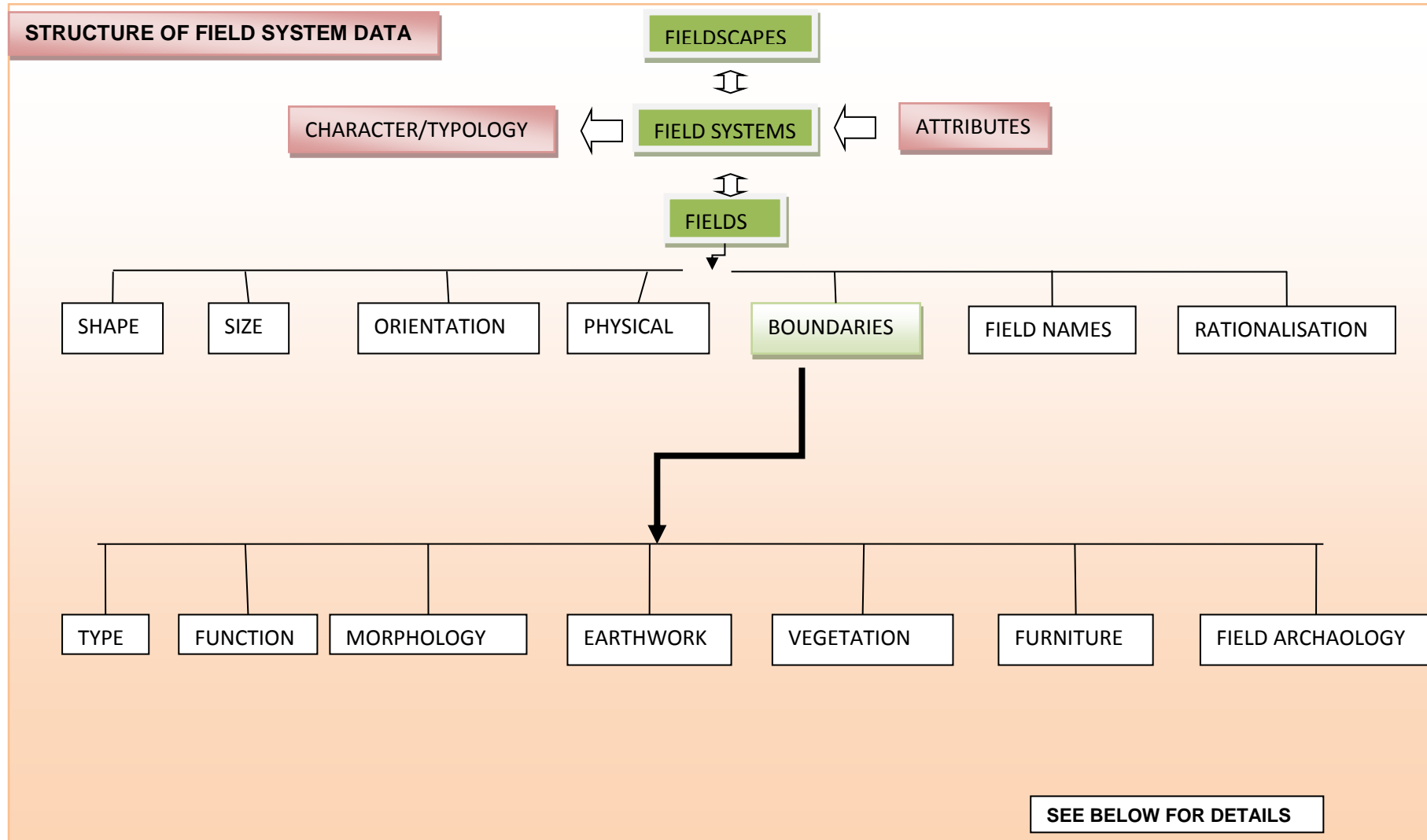
2.4.2.   DETAILED DESCRIPTIONS FOR THE ATTRIBUTES

[The background descriptions for the attributes will be expanded as the review of historic research continues and from HER query.]

2.4.2.1.   NUMBERING OF THE FIELDS AND BOUNDARIES

i.   Case Site Reference – Name of Case Study e.g. Scotney Estate

ii.   Survey Area – part of case study area e.g. Little Scotney Farm

iii.   Civil and Ecclesiastical Parishes, District and County – self explanatory

iv.   Polygon No – Number of Case study polygon

v.   Field No Ref ID – Number of Field see Figure 3 below e.g. F1 F2 F3
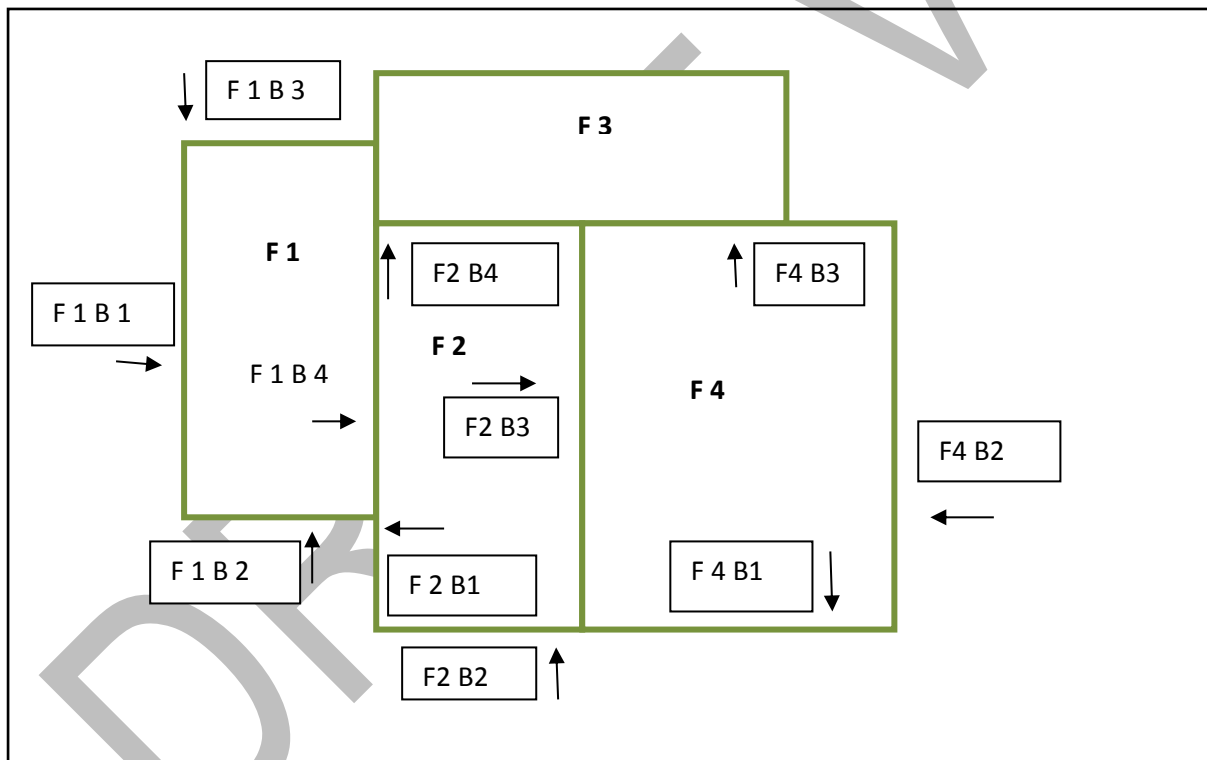
Figure 3.   Schematic diagram to show proposed method of numbering boundaries

2.4.3. FIELD ATTRIBUTES

These are individual fields in the case study areas recorded as a polygon with attribute table.

2.4.3.1. SHAPE

The shape or pattern that a group of fields makes is often the direct result of how the fields were created and their subsequent management. The defining shape can be used to identify types of fields and their antiquity. This was first recognised when [REF and background info ?] and for prehistoric fields given the generic name 'Celtic' fields. Shape is

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also strongly related to size (see below). Even when fields undergo rationalisation (see below) often the original field pattern can still be discerned in the landscape.

Small regular fields were easier to cultivate using oxen with small ploughs. Strong manorial feudal system farming collectively created open fields typical of middle England and parts of the West Country and Coastal Plain of Sussex. Where the feudal system was less well developed and woodland/pastoral systems prevailed farming in severalty dominated, manorial dues paid by a fine instead of work in kind (Day work). Landscape enclosed to fields, shape depending on their function and topographical location (see below). The characterisation of fields by shape and size is the main feature of the method of historic landscape characterisation.

Descriptive attributes [Drop down box]
Rectangular
Square
Irregular
Irregular-rectangle
Irregular – square
Curved / inverted 'S'
Other

Source
OS MasterMap
Historic Mapping

2.4.3.2. SIZE - Visual

The size of fields depends on when and why the fields were originally enclosed, followed by subsequent field rationalisation (see below). Smaller fields are were easier to manage and in the Weald were often no larger than 5 – 10 acres (REF Brandon and others ?).
Fields can be identified in a descriptive way or numerically. The later enables more detailed statistical querying to be undertaken in the analysis stage. [We need to think who can undertake this ?].

Descriptive attributes [Drop down box]
Small
Medium
Large
Very large

Source
OS MasterMap
Historic Mapping

2.4.3.3 SIZE - numerical

Fields can be identified in a descriptive way or numerically. The later enables more detailed statistical querying to be undertaken in the analysis stage. [We need to think who can undertake this ?].

Numerical attributes
Present Day – Hectares
Present Day – Acres
Historic - Tithe Acres Rods Perches
Historic - other Acres Rods Perches

Sources
Present area in ha from OS MasterMap
Historic area in acres, rods and perches from Tithe Apportionment, OS Field Books etc.

2.4.3.4. ORIENTATION

Groups of fields may be orientated in a particular direction, with continuous boundaries following a similar axis and 'hanging' from a landscape feature such as a routeway, a water course, from an older boundary or a ridge/valley. This is particularly characteristic of co-axial fields. These fields can run for a long distance as for example in Essex, Suffolk and West Sussex where the ground is relatively level, with little adverse topography. By contrast short runs of co-axial type fields are also found in the High Weald [HLC REF]. The orientation may not be obvious on modern mapping due to boundary removal so reference to historic maps will be needed. For each field state its orientation.

Descriptive attributes [Drop down box]
North
Noth east
East
South east
South
South west
West
Name Feature 'hanging' from (i.e routeway watercourse etc.)

Source
OS Explorer 1:25,000
Historic Mapping

2.4.3.5. PHYSICAL
i.   Geology

The geology and thus soils will influence field systems for example clay lands will tend to have the smaller field patterns derived from woodland, whereas chalk and sand will have fields derived from post-medieval enclosure of and previously 'open' landscape.

Descriptive attributes
Name main geological formation, such as chalk, shale, greensand etc.

Source
British Geological Survey

ii.   Soils

Changes in soil types across a landscape may influence boundaries and field sizes. Describe type from the Soil Survey with its soil number

Source
Soil Survey of England and Wales

iii.   Topography

The physical topography of a landscape will exert a strong influence on field pattern, including angle of slope and other landscape features, (see orientation above).

Descriptive attributes [Drop down box]
Ridge top
Valley sides
Valley Bottom
Other - specify

Degree/angle of slope ? – calculate from OS MM ? [Is this possible ?]

Source
OS Explorer 1:25,000 & OS MM

iv.   Hydrology

Water courses as features within and bounding field system.

Descriptive attributes [Drop Down Box]
Stream
River
Canal
Artificial channel

Source
OS Explorer 1:25,000

2.4.3.6. FIELD NAMES

Farmers name fields in order that cultivation and grazing regimes can be described, recorded, mapped and these can be passed on within generations and subsequently between generations. Field names are particular to the nature of farming, whether it is the productivity or not of the soils, the field size, the use of the field, associations with the field to particular events, relationship with adjacent features or ownership. Detailed study of field names is not meant here but what can be understood from individual names or groups of names and their possible antiquity. Prefixes to names such as Great and Little, Large and Small, Hither and Further all suggest field sub-division perhaps through inheritance (gavelkind in Kent).

Colloquial names to locality may give clues as to land use and antiquity such as 'Forge Field.

Descriptive attributes [Free Text Fields]
Historic names and how far back
Present day names

Sources
OS Field Books
Tithe Map
Estate Maps
Owner's knowledge

2.4.3.7. RATIONALISATION

Most field patterns have under gone at some degree a level of boundary re-organisation or removal where by boundaries were removed completely or re-aligned to meet in the main changes in agricultural practice or changes in landscape features (such as the re-routing of a road). Although most boundary change occurred in C20, it is evident that changes also took place in C19 during the period of 'high' farming and the introduction of more factory type approach often adopted by large estates. Fields reorganised together with the farmstead – enlarged and the building of more out barns and farms.

Intactness of field system is taken from an agreed historic base line of the parish Tithe Map c. 1840. Generally this is the time when modern farming really started to develop. The Tithe provides a picture of what most field systems would have appeared before modern farming practices and the revised HLC for the Kent parishes of the High Weald are showing significant boundary loss after 1840 and before 1900.
In order to gain a detailed picture of the boundary changes the loss and gain for each field should be recorded. For example the field being recorded may have been divided into two in 1940 thus there has been a loss of one boundary.
[How the loss is recorded will need to be discussed with the team]

Descriptive attributes [Free text field or drop down depending on what is decided]
Boundary Loss from Field
Boundary Gain in Field

Sources
OS MM
Historic Mapping

2.4.3.8. ARCHAEOLOGY
Monuments associated with the historic function of fields and other land use found within fields. Of the former, plough headlands, ridge and furrow, former boundary banks/ditches. Of the latter, quarries, ponds, settlement platforms, routeways. The relationship of field boundaries with these features, traversing or aligned. Include here footpaths both present and 'lost'.

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Descriptive attributes
Monument Type [Free text but is taken from EH Thesaurus of Monument Types plus HER Number]

Position in Field	middle Side All	[Drop down box]
Relationship to boundary	Cut by Adjacent to Part of	[Drop down box]

Sources
HER
Field Survey
Aerial Photographs
Drone Survey

2.4.3.9. HISTORIC LANDSCAPE CHARACTERISATION

Undertaking the detailed field work in this area may result in a re-assessment of the type of field system in question or the indentifying of a new type. Thus there may need to be a revision of the HLC types.

Descriptive Attributes
Current HLC Type [Free text field taking it from the HLC typology]
HLC Revision [Free text field]

Source
Sussex and Kent Phase 1 and HW Revised HLCs

2.4.3.10. HISTORIC ARCHIVE

This section gives a brief indication of the past history of the field, which will give information on the features and attributes found within and associated with it.

Descriptive Attributes [Free text fields]
Source
Owners
Occupiers
Land use
Area

2.4.3.11. PHOTOGRAPHS

List the reference numbers to the photos taken of this Field and its features
[Free Text field]

2.4.4. BOUNDARY ATTRIBUTES

For each Field its boundaries are identified and recorded. [See section 3.2.1. Figure 3. above]. The Individual Field polygon is now converted to a line .shp file linked to its original polygon.

a.   Polygon Number – repeated from the Field attributes above and providing the link between polygon and line ?

b.   Boundary number – unique number for each boundary see Figure 3. above

2.4.4.1. TYPE

Boundaries can be formed of several main types, usually a hedge or wooded hedge. In lowland valleys, ditches will dominate, in open landscapes fences on raised balks. In wooded landscapes narrow woodland strips or shaws. In the West Country earthern stone-faced banks or in upland areas stone walls.

Descriptive attributes [Drop down box]
Hedge
Wooded Hedge
Shaw
Drystone Wall
Earthbank – stone faced
Fence
Ditch
Balk

2.4.4.2. FUNCTION

Boundaries may serve more than one function. Dividing and enclosing land into fields is the main one but boundaries were also territorial, feudal, ecclesiastical and defensive. [See Steve Podd's paper on history of boundary types in the High Weald]. Thus within any given field system some boundaries may be older than others depending on their function, for example assart fields adjacent to a parish boundary, with the latter being older. Or a parish boundary following field boundaries in a dog-leg pattern suggesting the former is younger than the fields through which it passes, i.e. it uses existing fields.

Descriptive attributes [Multiple Drop down box]
Agrarian
Farm
Parish
Territorial – manor, den
Recreation – park pale
Hundred, Rape, Lathe, Shire etc.
Woodland
Local Admin
Regional Admin
Other - specify

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<u>Source</u>
Historic mapping
Historic Research

2.4.4.3. MORPHOLOGY

The morphology or line of a boundary and its relationship to adjacent boundaries contribute to a field pattern. Enclosures from medieval furlongs where boundaries follow the strips produces boundaries formed of inverted 'S' and sub-divided by shorter straighter ones. Fields created from woodland will have boundaries following a sinuous line.

<u>Descriptive attributes</u> [Drop down box]
straight,
curved,
sinuous,
dog-legged,
form an inverted 'S'
discontinuous.
Other - specify

<u>Source</u>
OS Explorer
Historic Mapping

2.4.4.4. EARTHWORK

Many boundaries comprise an earthwork and a vegetative form (hedge). The earthwork can be older than the hedge (which may have been replaced). Some boundaries re-used from a former function. Park pale to field boundary leaving a small hedge on top of wide curving bank and deep ditch.

<u>Descriptive attributes</u>
Bank   number [Free text field]
        Size ? x ? [Free text field]
        Profile – Symmetrical
        Profile – Asymmetrical
        Profile – Lynchet

Ditch   number [Free text field]
        Size ? x ? [Free text field]
        Profile – Symmetrical
        Profile – Asymmetrical
        Silted

2.4.4.5. Relationship to adjacent boundaries

In order to form a particular type of field system, the boundaries will exhibit relationships with adjacent boundaries depending on the use of the field and possibly how the enclosures were originally created.

Descriptive Attributes
Boundary Number [Free text field] (the boundary to which it joins)

Abutting [Drop down box]
Contiguous
Overlying
Overlaid
Cut by ditch.
Other - specify

Source
Field Observation

2.4.4.6. RELATIONSHIP TO SLOPE

Descriptive Attributes [Drop down box]
Across slope
With slope
Other – specify

Sources
OSMM
OS Explorer
Field Observation

2.4.4.7. ORIENTATION
This attribute is the orientation of the boundary being recorded

Descriptive attributes [Drop down box]
North
North east
East
South east
South
South west
West

Source
OS MM

2.4.4.8. FURNITURE

The 'furniture' of any boundary are the features that form part of the local landscape. These are gateways, stiles, veteran boundary marker trees, some of which can be marked up on historic maps.

Descriptive attributes [Drop down box]
Gate
Stile
Markers
Animal watering points
Creeps
Smoots
Drains
Other – specify

Source
Field Survey
Historic maps

2.4.4.9. VEGETATION
The field systems project is not a detailed hedgerow survey in the more accepted sense. There is a considerable amount of literature on this subject and given the wooded nature of the High Weald landscape detailed species counts are not useful for dating. Noting the variety of the woody shrub component together with its ecological diversity as a positive attribute is what is required, together with that of the boundary base.

i.   Management
This is generally evidence for historic management such as laying or coppicing. Today most hedges are flailed.

Descriptive Attributes [Drop down box]]
Pollard
Stubbed
Coppiced
Laid
Flailed
No evidence for management

Source
Field observation

ii.   Species
This project does not include a botanical survey of the hedge. Instead just observation on whether it is species rich or poor with comments on the key species from a historic and/or biodiversity aspect.

Descriptive attributes [Free text field]
Single species

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Mixed species
Key species

Source
Field survey

iii. Biodiversity Value
[Add text here ?]

Descriptive Attributes [Drop down box]
High
Medium
Low

2.4.4.10. Cross Reference with Meadow Survey
This will be a reference to the field survey id for each field.

2.4.4.11. Notes
Notes on any other observations about the boundary

2.4.4.12. Photographs
Links and references to photographs of boundary taken during field survey

2.5. Summary of Field System Attributes

Table 3   Fields [polygons]

FIELD ATTRIBUTES			
GIS Field Name in Full	**GIS Field Name**	**GIS Field Type**	**Details**
Case Site Reference			Free text field
Survey Area			Free text field
Polygon Number			
Civil Parish			Free text field
Ecclesiastical parish			Free text field
District			Free text field
County			Free text field
Shape			Drop down box
Size Visual			Drop down box
Size numerical	Number		
Orientation			Drop down box
Physical Geology			Free text field
Soils			Free text field
Topography			Drop down box
Hydrology			Drop down box
Field names Historic			Free text field
Field Names Present day			Free text field
Rationalisation - Loss			
Rationalisation - gain			
Archaeology – Mon type & HER no			Free text field
Position in field			Drop down box
Relationship to boundary			Drop down box
HLC Type			Free text field

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Revised HLC			Free text field
Historic Archive Source			Free text field
Owner			Free text field
Occupier			Free text field
Land use			Free text field
Area	Number		Free text field
Photo Refs			Free text field

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Table 3   Boundaries [lines]

BOUNDARY ATTRIBUTES			
GIS Field Name in Full	**GIS Field Name**	**GIS Field Type**	**Details**
Polygon Number			
Boundary Number			
Type			Drop down box
Function			Drop down box
Morphology			Drop down box
Earthwork Bank			Drop down box
Number		Number	
Size		Number	
Profile			Drop Down box
Earthwork Ditch			
Number		Number	
Size		Number	
Profile			Drop down box
Relationship to adjacent boundary			Drop down box
Relationship to slope			Drop down box
Orientation			Drop down box
Furniture			Drop down box
Vegetation Management			Drop down box
Species			
Biodiversity Value			Drop down box
Cross reference with Meadow Survey			Free text field
Notes			Free text field
Photos			Free text field

3. Data from the county Historic Environment Records [HERs]

In addition to the collation of the historic and field data for each case study site, information from the relevant county HER on previously recorded archaeological features will also be researched.

3.1. Introduction

In order to understand the origins and functions of existing field systems in the High Weald, an assessment and review of evidence from archaeological investigations of buried field systems and their relationship within the landscape needs to be undertaken. This review comprises two stages.

a.   An overview for the High & Low Weald National Character Areas [NCAs]
b.   More detail review of the case study sites [See Table 1.].

The following sets out some of the key queries or questions which need to be asked of the respective HER's and the associated grey literature for the counties covering the High Weald and the borders with the Low Weald.

3.1.1 The Background Research of Field systems in the NCAs (121 Low and 122 High Weald and 123 Romney Marsh)

a. Any specific surveys or research of field systems
b. Archaeological excavations which have included prehistoric, Roman, Saxon and / or medieval field systems/ field boundaries in particular those which have looked at those excavations within the context of the wider landscape. Evidence from ditch fills
c. Any historic landscape surveys which have included a survey of field systems and/or hedgerow/boundaries surveys
d. Evidence for prehistoric settlement in the Weald
e. Evidence for medieval settlement and also deserted medieval farms

3.1.2. Case study areas

a. Query HER for archaeological records for each of the Case Study Areas. There will be three sites which will be surveyed on the ground [Table 1a]. There will be a buffer zone of 1 km for setting the archaeological context of each case study area. The project is also considering four case study sites which will be subject to desk-top review and survey by footpath only Table 1b].

b. Also required for the Case Studies
     * any geophysical surveys which have revealed evidence for settlement/field systems.
     * RAF AP images of the case study sites.
     * HLC and Farmstead characterisation data which the High Weald AONB hold copies of.

3.2. Query – Key Monument Types

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In order to query the HER, need to establish the key search words drawn from the EH 'Thesaurus of Monument Types.

A full extract of all monument types from the HER for each of the case study areas plus their 1 km buffer zone will be needed, comprising long reports, Event records, Grey Literature relevant historic AP coverage etc.

The following key words are for the query 1.1. National Character Areas – (121 Low and 122 High Weald and 123 Romney Marsh)

Class Definition   Agriculture & Subsistence

Field
        Paddock
        Plough headland

Field System
        Aggregate Field system
        Celtic field system
        Centuriated area
        Coaxial field system
        Enclosed field system
        Open field
        Water meadow
        Interrupted ditch system
        Meadow

Class Definition   Domestic
Settlement
        Deserted settlement
        Enclosed settlement
                Enclosed hut circle settlement
        Hillfort
                Palisaded Homestead
                Palisaded Settlement
        Homestead
        Hut circle settlement
                Enclosed Hut circle settlement
                Unenclosed Hut circle settlement
        Open site
        Unenclosed settlement
                Unenclosed Hut circle settlement
        Vill

Class Definition   Unassigned
        Occupation site

Class Definition   Monument by Form

Boundary

 Boundary Bank
 Boundary Ditch
 Boundary Fence
 Boundary Marker
 Boundary Mound
 Ditch
 Field Boundary
 Hedge
 Parish boundary
 Park Pale
 Lynchet

3.3. Maps

Supplied with the Specification are the relevant .shp files for each of the NCAs (no buffer zone) and for each of the case study areas (1km buffer to be added)

3.4. HER Results

The outcome from the HER query needs to comprise the results as;-

a. GIS shape file/s of the query results
b. Monument Long reports for each record
c. The grey literature accompanying each record as .pdf reports

APPENDIX I
## CASE STUDY AREAS MAPS

Full Survey

Name of Site	Parish	County
Earlyes Farm	Wadhurst/Frant	East Sussex
Little Scotney Farm	Lamberhurst/Goudhurst	Kent
Batemans	Burwash	East Sussex

Footpath Survey

Name of Site	Parish	County
Great Dixter	Northiam	East Sussex
Benenden village-south	Benenden	Kent
Townhouse & Great Lynwood Farms	Ardingly	West Sussex
Pococksgate Farm	Frant	East Sussex

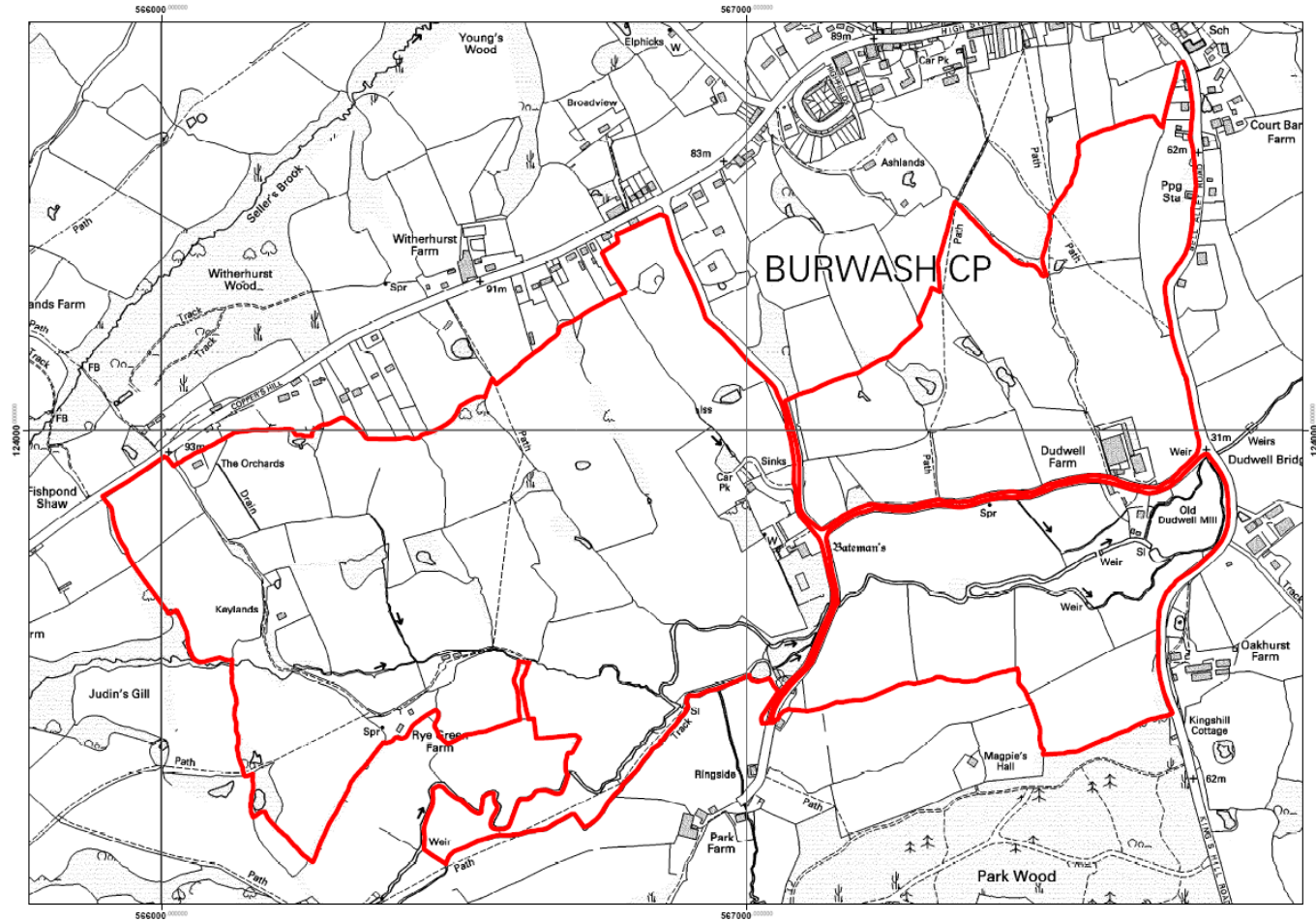Insert Map of High Weald with case study areas marked

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Earlyes Farm, Wadhurst, East Sussex

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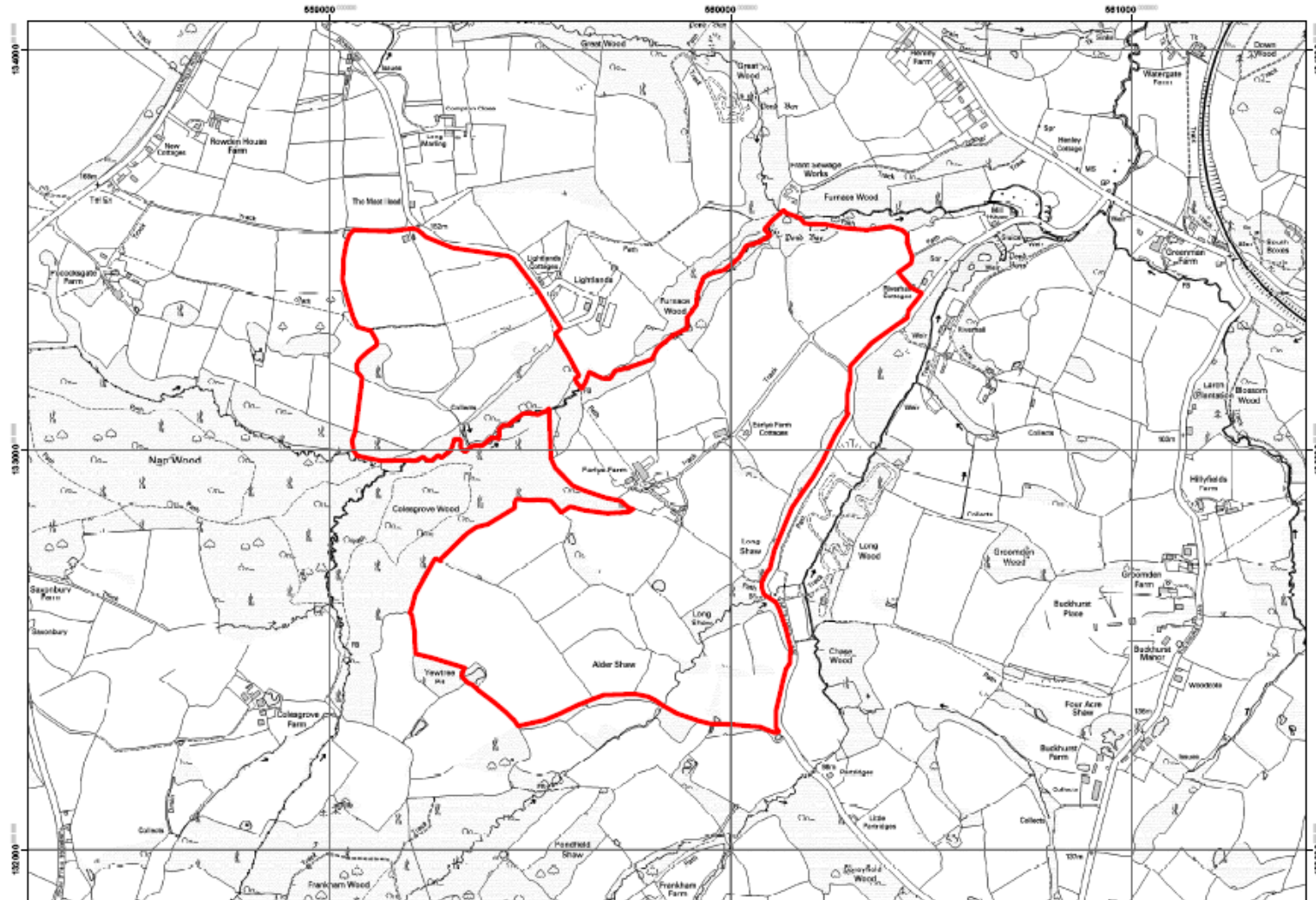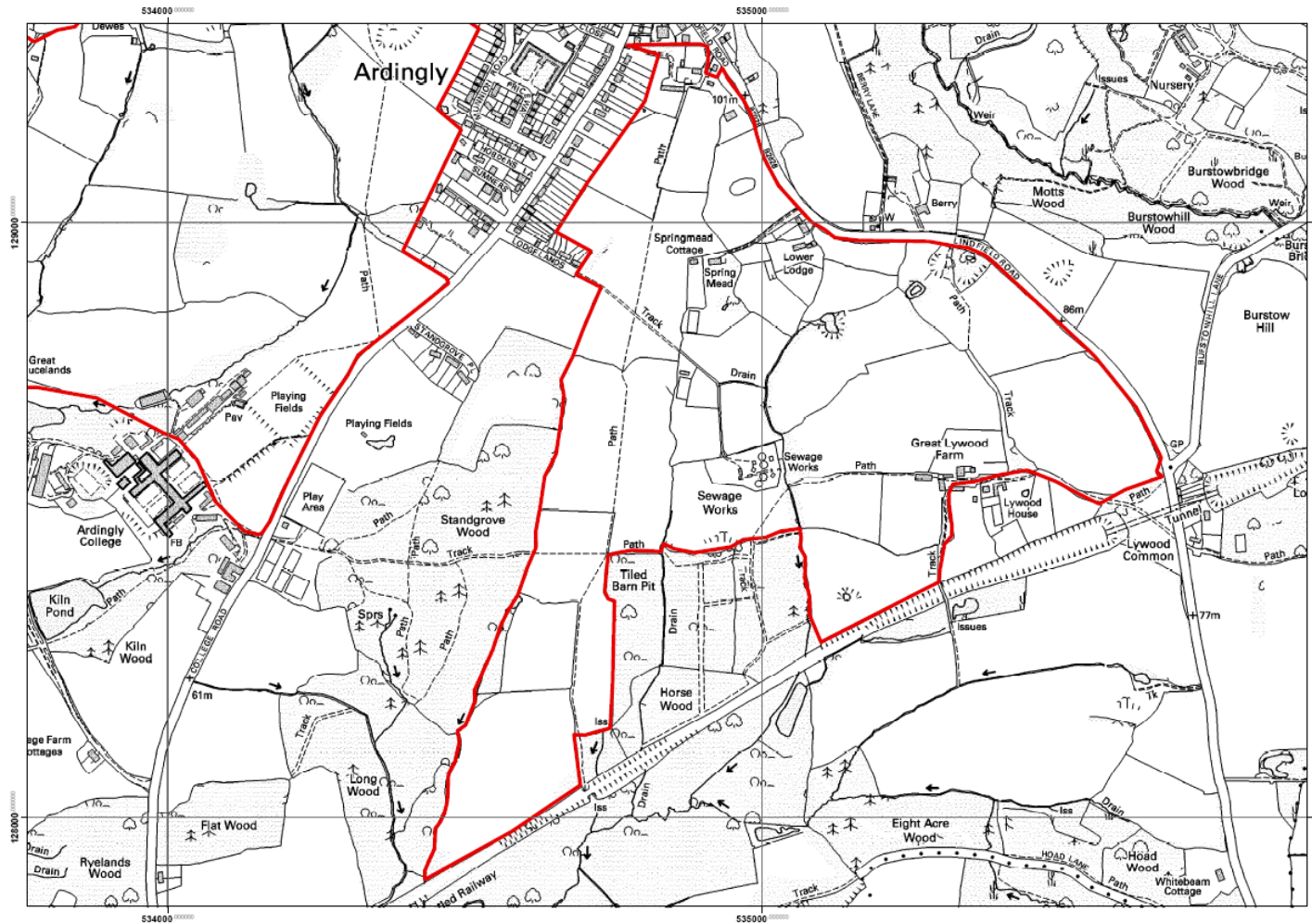
Little Scotney Farm, Lamberhurst and Goudhurst, Kent

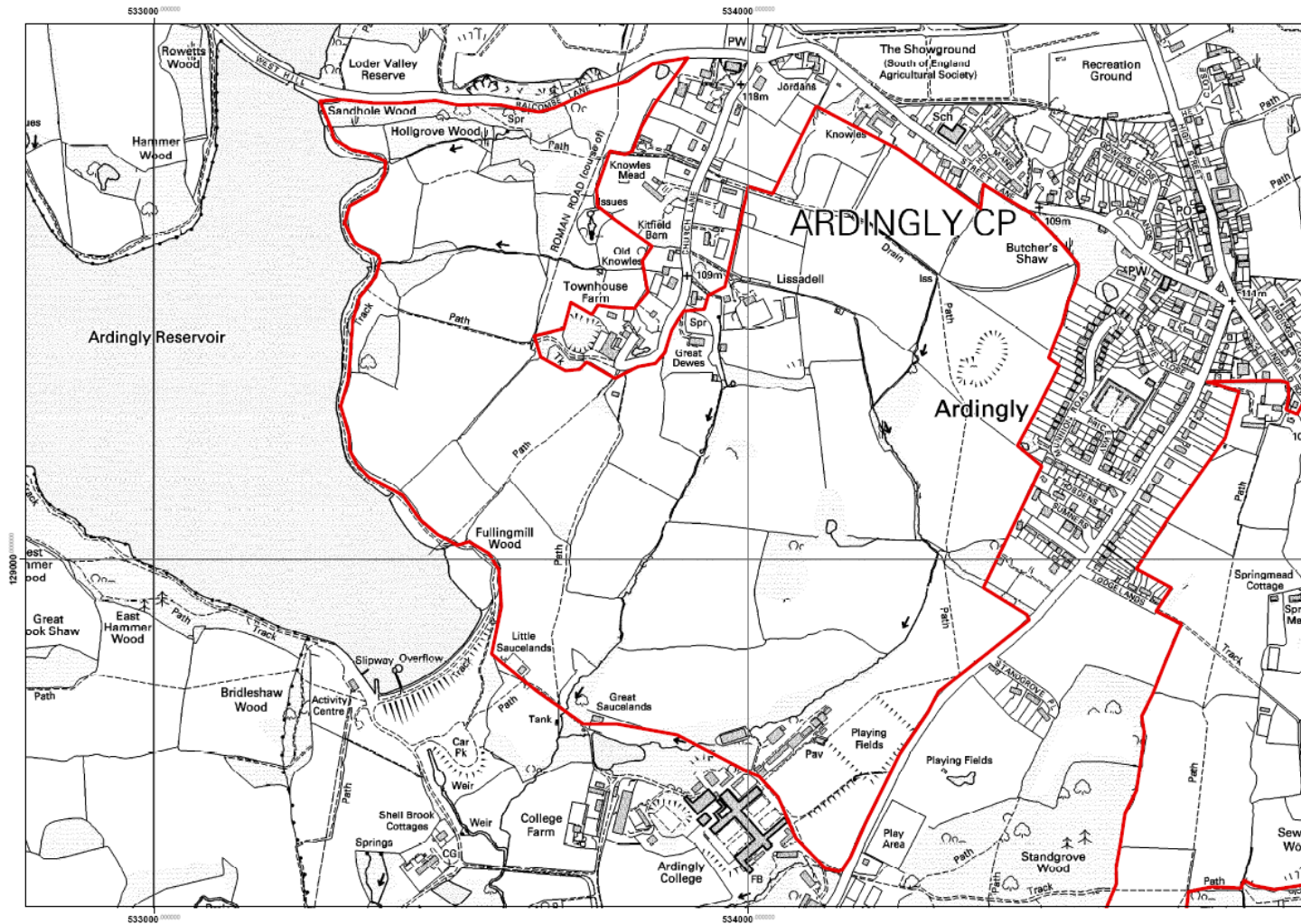32

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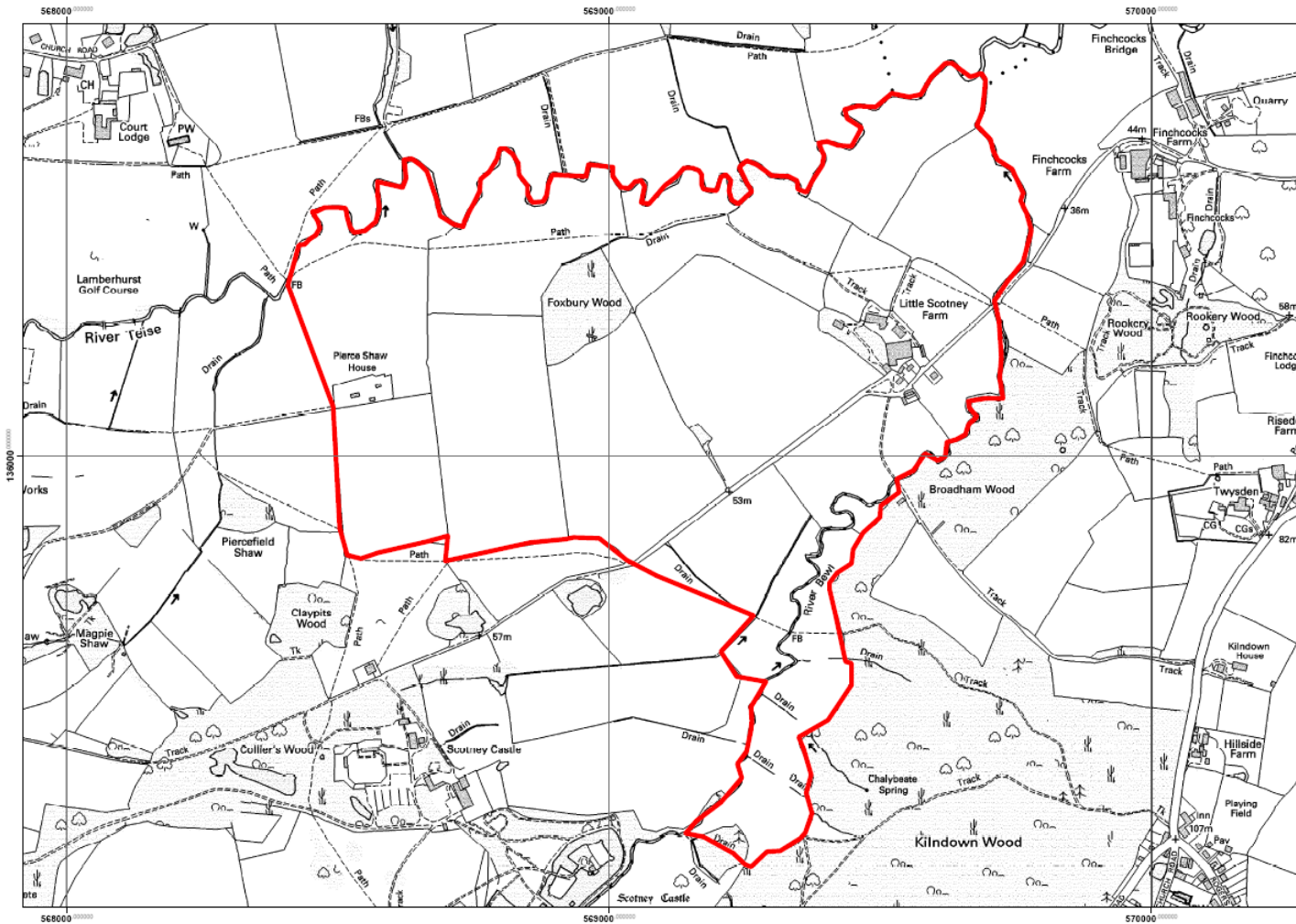
Bateman's Burwash, East Sussex

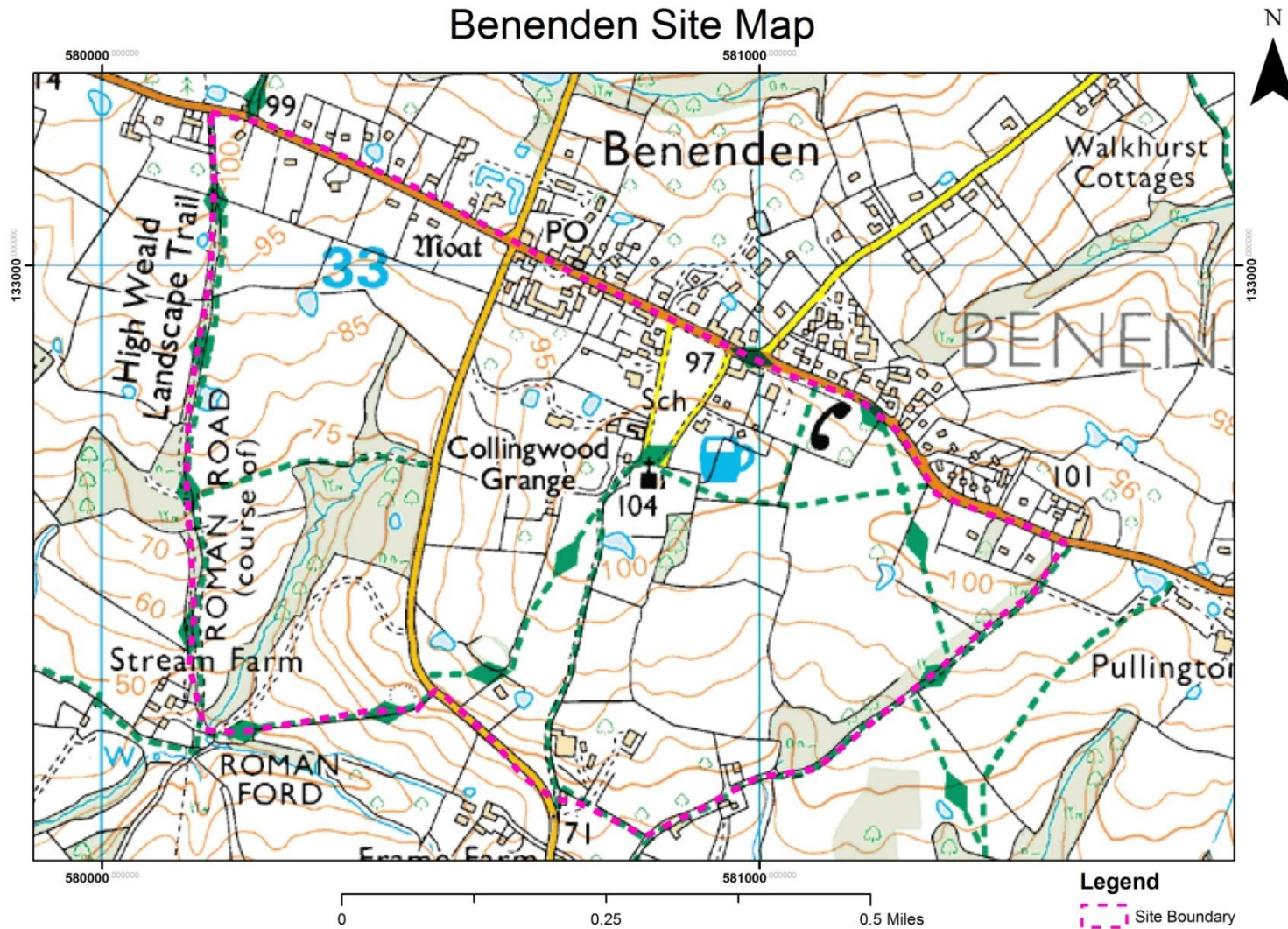Great Lywood Farm, Ardingly, West Sussex

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Townhouse Farm, Ardingly West Sussex

Benenden, Kent

Benenden Site Map

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Great Dixter, Northiam, East Sussex

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Pococksgate Farm, Frant, East Sussex

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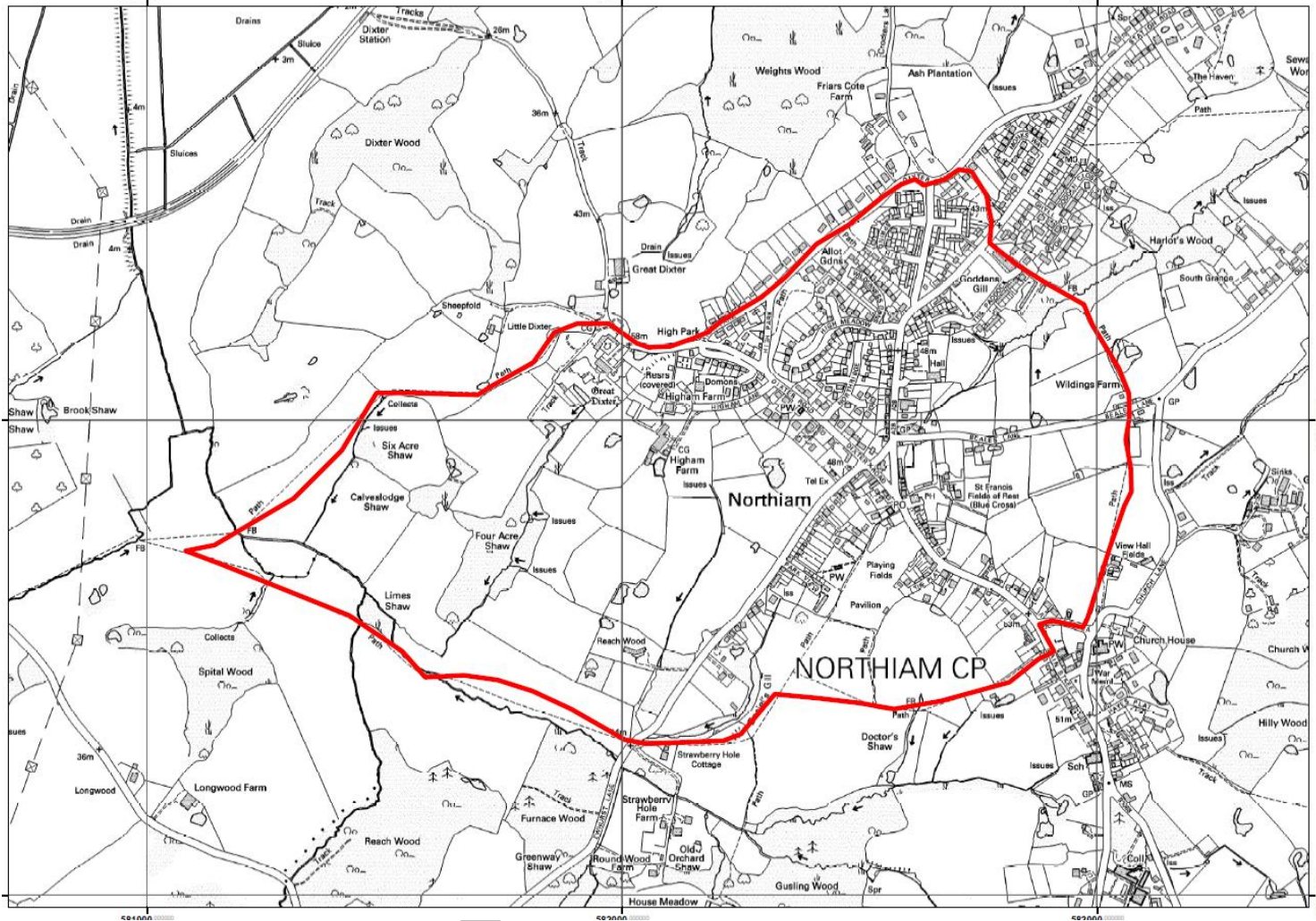
APPENDIX II
FIELD SYSTEMS IN THE HIGH WEALD – FIELD SURVEY SHEET [Historic England Project No. 7056] Draft V5

Side 1. FIELD ATTRIBUTES

CASE SITE REFERENCE		SURVEY AREA		CIVIL PARISH		DISTRICT		COUNTY	
POLYGON NO				FIELD REF/ID		ECCLESIASTICAL PARISH			
SHAPE	Rectangular	Square	Irregular	Irregular rectangle	Irregular square	Curved/inverted 'S'	Other - Specify		
SIZE – visual	Small	Medium	Large	Very large					
SIZE – numerical	Present Day Ha		Present Day Acres		Historic – Tithe A-R-P		Historic - other		
ORIENTATION	North	North-east	East	South east	South	South west	West	Hanging from - specify	Other – specify
PHYSICAL	**Geology**								
	Soils								
	Topography	Ridge top	Valley sides	Valley bottom	Whole valley	Other - specify		Degree of slope	
	Hydrology	Stream	River	Canal	Artificial channel				
FIELD NAMES	**Historic names**								
	Present names								
RATIONALISATION		Boundary Loss			Boundary Gain				
ARCHAEOLOGY	Name of feature + HER REF NO	Position in field – middle	Position in field – corner	Position in field Side	Position in field All	Relationship to boundary	Cut by	Adjacent to	Part of boundary
HLC	**HLC Type**				**HLC Revision**				

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HISTORIC ARCHIVE									
SOURCE		Owner		Occupier		Land use		Area	
PHOTO REFS									

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Side 2 Boundary Attributes

Polygon no.		Boundary number							
		B1		2		3		4	
Type	Hedge								
	Wooded Hedge								
	Shaw								
	Stone Wall								
	Stone faced bank								
	Fence								
	Ditch								
	Balk								
Function	Agrarian								
	Farm								
	Parish								
	Recreation								
	Local Admin								
	Regional Admin								
	Other - specify								
Morphology	Straight								
	Curved								
	Sinuous								
	Dog-legged								
	Inverted S								
	Discontinuous								
	Other - specify								
Earthwork	Bank	1	2	1	2				
	Number								
	Size								
	Profile S								
	Profile A								
	Ditch								
	Size								
	Profile S								
	Profile A								
	Silted								
Relationship	Boundary No								
to adjacent	Abutting								
boundary	Overlying								
	Overlaid								
	Cut by ditch								
	Other - specify								
Relationship to slope	Across slop								

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		Boundary number			
Polygon no.		B1	2	3	4
	With slop				
	Other - specify				
Orientation	North				
	North east				
	East				
	South east				
	South				
	South west				
	West				
	North west				
Furniture	Gate				
	Stile				
	Markers				
	Stock watering				
	Creeps/smoots				
	Other - specify				
Management	Pollard				
	Stubbed				
	Coppiced				
	Laid				
	Flailed				
	None				
Species	Single				
	Mixed				
	Key Species				
Biodiversity value	High				
	Medium				
	Low				
Cross ref with meadow survey					

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		Boundary number											
Polygon no.		B1			2			3			4		
Notes													
Photo refs													

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APPENDIX III

2.1.   Definitions

There are several key words used in the project which can have several meanings in the wider world. The definitions below are definitions for this project.

Fieldscapes

Landscapes dominated by groups of field systems, together with routeways, settlement and topographical features which all contribute to create a particular landscape character.

The following definitions are taken from the Historic England (English Heritage) *Thesaurus of Monument Types* (2nd Ed1998) which, is used by HERs for recording monument types. It is important that these terms are used in order to ensure that the Field Systems data is compatible with the HER.

Field Systems

Groups of enclosures or complexes of fields which appear to form a coherent whole.

Aggregate Field System

Irregular and regular forms

A field system which appears to have developed in an organic, or piecemeal fashion over time.

Celtic Field system

A fairly regular system of small rectangular fields. Examples may date from middle Bronze Age to the Roman Period. The word 'Celtic' carries no chronological or cultural connotations in this context.

Centuriated area

An area of land which retains distinctive large-scale rectilinear land division characteristic of Roman agriculture. Generally aligned along the course of a Roman Road.

Co-axial field system

A field system with one prevailing axis of orientation in which most field boundaries are either aligned with this axis or run at right angles to it.

Enclosure

An area of land enclosed by a boundary ditch, bank, wall, palisade or other similar barrier.

Enclosed Field System

Irregular Enclosed Field System

Regular Enclosed Field System

[No definition – is this planned fields ?]

Fields

Are the individual units of enclosures and are defined by boundaries – the limit line of the field.

Boundaries [- field]

Are the physical barrier which define individual fields.

Lynchet

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A bank formed at the end of a field by soil, which loosened by the plough, gradually moves down slope through a combination of gravity and erosion.

Strip Lynchets

A terraced field usually found on hillsides. Comprising a flat strip of land, called the tread, and a steeper, scarped lynchet or edge, called the riser.

Boundary bank

An earthern bank that indicates the limit of an area or a piece of land.

Boundary Ditch

A ditch that indicates the limit of an area or a piece of land.

Boundary marker
A marker of some form used to indicate the limit of an area or a piece of land.

Wood bank

An earthern bank indicating the limit of a wood or coppice.

Plough headland

A narrow strip of land where a plough and team could turn. This usually remains higher than the ploughed land.

Ridge & furrow

A series of long, raised ridges separated by ditches used to prepare the ground for arable cultivation. This was a technique characteristic of the medieval period.

Narrow ridge and furrow

Long parallel ridges less than 5 metres across separated by furrows, formed by using a heavy plough capable of turning the soil.

Gate

A moveable structure which enables or prevents entrance to be gained. Usually situated in a wall or similar barrier and supported by gate-posts.

Stile

A set of steps or a framework of bars and steps for crossing over a fence or wall.

2.2.   Definitions of different Field systems or patterns from the Sussex and revised Kent Historic Landscape Characterisations.

[ADD from discussion on Enclosures for HW Revised HLC]

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