

**Ridham Dock**



Countrystyle Heat & Power

**Ridham Dock**

Archaeological and Cultural Heritage Desk-Based Assessment

Kirsten Holland

June 2009



## REPORT CONTROL

Document: Archaeological and Cultural Heritage Desk-Based Assessment

Project: **Ridham Dock**

Client: **Countrystyle Heat and Power**

Job Number: **A054649**

File Origin: N:\Projects\A050001-A051000\A050877\reports\Archaeology\Cultural

### Document Checking:

Primary Author	Kirsten Holland	Initialled:	
----------------	-----------------	-------------	--

Contributor		Initialled:	
-------------	--	-------------	--

Review By	Peter Harrison	Initialled:	
-----------	----------------	-------------	--

Issue	Date	Status	Checked for Issue
1	May 2009	Final	
2	June 2009	Final – minor alterations to project description	
3			
4			



## Contents

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>4</b>
1.1	Aims and Objectives .....	4
<b>2.0</b>	<b>METHODOLOGY .....</b>	<b>5</b>
2.1	Assessment Methodology .....	5
2.2	Sources Consulted .....	5
<b>3.0</b>	<b>SITE DESCRIPTION .....</b>	<b>6</b>
<b>4.0</b>	<b>LEGISLATION AND PLANNING POLICY CONTEXT .....</b>	<b>6</b>
4.1	Ancient Monuments and Archaeological Areas Act 1979 .....	6
4.2	PlaNning (Listed Buildings and Conservation Areas) Act 1990 .....	6
4.3	Planning Policy Guidance 16: Planning and Archaeology - 1990 .....	6
4.4	Planning Policy Guidance 15: Planning and the Historic Environment - 1994 .....	7
4.5	Regional Policy and Guidance .....	7
4.6	Local Policy and Guidance .....	7
<b>5.0</b>	<b>CONSULTATION .....</b>	<b>8</b>
<b>6.0</b>	<b>BASELINE DATA .....</b>	<b>8</b>
6.1	Designated Sites .....	8
6.2	Archaeological and Historic Background .....	8
6.2.1	Prehistoric (up to 43AD) .....	8
6.2.2	Roman/Romano British (43AD to c.450AD).....	9
6.2.3	The Early Medieval Period (c.450AD to 1066AD) .....	9
6.2.4	Medieval Period (1066 AD to c.1540AD).....	9
6.2.5	Post Medieval (c.1540AD to 1900AD) and Modern (1900AD to present).....	10
<b>7.0</b>	<b>HISTORIC MAPPING SURVEY .....</b>	<b>11</b>
<b>8.0</b>	<b>Historic Landscape Character .....</b>	<b>12</b>
<b>9.0</b>	<b>AERIAL PHOTOGRAPHS .....</b>	<b>12</b>
<b>10.0</b>	<b>SITE WALKOVER SURVEY .....</b>	<b>13</b>
<b>11.0</b>	<b>ARCHAEOLOGICAL POTENTIAL AND IMPACT ASSESSMENT .....</b>	<b>13</b>
<b>12.0</b>	<b>EVALUATION AND MITIGATION .....</b>	<b>14</b>
<b>13.0</b>	<b>REFERENCES .....</b>	<b>15</b>

## Appendices

Appendix A	-	Assessment Methodology
Appendix B	-	Site Location and Proposed Development
Appendix C	-	Site Photographs
Appendix D	-	Planning Policies
Appendix E	-	Recorded Cultural Heritage Sites
Appendix F	-	Historic Mapping
Appendix G	-	Report Conditions



## 1.0 INTRODUCTION

This Archaeological and Cultural Heritage Desk Based Assessment has been prepared by Kirsten Holland, Senior Archaeologist, WYG on behalf of Countrystyle Heat and Power in support of a full planning application for a small scale biomass power plant for the regeneration of electricity from renewable biomass sources.

The proposal will allow for the installation of a 2.63MWe biomass power plant within an existing building to process approximately 30,000 tonnes of low grade waste wood per annum. The proposal includes the provision of an external cooling system to the east of the existing building and the insertion of a new chimney stack rising to approximately 27.5m above the existing roof ridge.

### 1.1 AIMS AND OBJECTIVES

This study examines the cultural heritage potential of the proposed development site and the surrounding area. The aim of the study is to:

- Identify recorded cultural heritage sites within the site boundary
- Identify the potential for previously unrecorded sites to be present within the site
- Identify potential impacts and mitigation strategies where appropriate
- Make recommendations for further work where required.

Cultural heritage within this context includes all buried and upstanding archaeological remains, built heritage sites, historic landscapes and any other features that contribute to the archaeological and historic interest of the area.

In accordance with the IfA Standard definition of a Desk-Based Assessment (IfA 1994 rev 2001), this report seeks to identify and assess the known and potential historic resource within a specified area ('the site'), collating existing written and graphic information and taking full account of the likely nature and extent of previous impacts on the site, in order to identify the likely character, extent, quantity and worth of that resource in a local, regional and national context as appropriate.

The purpose of the desk-based assessment is to enable the cultural heritage resource to be assessed within its context and allow the formulation of one or more of the following:

- Formulation of a strategy to ensure the recording, preservation or management of the resource
- Formulation of a strategy for further investigation to permit a mitigation strategy or other response to be devised, where existing evidence is insufficient
- Formulation of proposals for further assessment work within a framework of research.

This desk-based assessment considers the cultural heritage potential within the site itself and the surrounding area. This assessment does not attempt to plot and review every archaeological find and monument; rather it aims to examine the distribution of evidence and to use this to predict the



archaeological potential of the study area and the likely significance of the development proposals on those remains.

## 2.0 METHODOLOGY

### 2.1 ASSESSMENT METHODOLOGY

Impact assessment has been carried out through the consideration of baseline conditions in relation to the elements of the scheme that could cause cultural heritage impacts. Baseline conditions are defined as the existing environmental conditions and in applicable cases, the conditions that would develop in the future without the scheme. In accordance with best practice this report assumes that the scheme will be constructed, although the use of the word 'will' in the text should not be taken to mean that implementation of the scheme is certain.

No standard method of evaluation and assessment is provided for the assessment of impact significance upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State's criteria for Scheduling Monuments (PPG16, Annex 3), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgement is used in conjunction with these criteria to undertake the impact assessment. The full assessment methodology can be seen in Appendix A.

The well established and applied principles of the impact assessment methodology rest upon independently evaluating the value of the cultural heritage resource and the predicted magnitude of impact (both positive and negative) upon the resource. By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the impact can be determined. The impact significance can be beneficial or adverse. The evaluation of magnitude of impact and impact significance is undertaken both before and after mitigation measures are proposed.

### 2.2 SOURCES CONSULTED

A study area of approximately 1km radius from the approximate centre of the proposed development site (TQ 9208 6820) has been examined to assess the nature of the surrounding cultural heritage sites and place the recorded sites within their context.

This study has been undertaken taking into consideration the historical and archaeological background of the proposed development area. The sources consulted were:

- Kent Historic Environment Record (HER)
- National Monuments Record (NMR)
- English Heritage for designated sites
- Swale Borough Council for Conservation Areas



- Historic mapping including relevant Ordnance Survey Maps
- Aerial photographs
- Appropriate documentary sources and archaeological journals, where available.

In addition to the above a site walkover survey was undertaken on 22<sup>nd</sup> April 2009.

## 3.0 SITE DESCRIPTION

The proposed development site is located to the south of Ridham Dock on the banks of the River Swale. The site is centered on TQ 9215 6740 (E:592150 N:167400) and is under 5m above Ordnance Datum.. A site location plan can be seen in Appendix B (WYG Figure 01). Photographs of the site can be seen in Appendix C. The proposed development site is bounded to the west and north by industrial land utilised for the storage of waste materials, to the south by a boundary ditch and the former Grovehurst Dock and to the east by a seawall or marsh bank adjacent to the River Swale. The site is currently in industrial use for the processing of biodegradable waste. The site is composed of hard standing and there are a number of extant buildings.

## 4.0 LEGISLATION AND PLANNING POLICY CONTEXT

### 4.1 ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979

Scheduled Monuments are designated by the Secretary of State for Culture, Media and Sport on the advice of English Heritage as selective examples of nationally important archaeological remains. Under the terms of Part 1 Section 2 of the Ancient Monuments and Archaeological Areas Act 1979 it is an offence to damage, disturb or alter a Scheduled Monument either above or below ground without first obtaining permission from the Secretary of State. This Act does not allow for the protection of the setting of Scheduled Monuments.

### 4.2 PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990

The Act outlines the provisions for designation, control of works and enforcement measures relating to Listed Buildings and Conservation Areas. Section 66 of the Act states that the planning authority must have special regard to the desirability of preserving the setting of any Listed Building that may be affected by the grant of planning permission. Section 72 of the Act states that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of Conservation Areas.

### 4.3 PLANNING POLICY GUIDANCE 16: PLANNING AND ARCHAEOLOGY - 1990

PPG16 sets out the government's policy with respect to archaeology and planning. If development is likely to impact upon archaeological remains the guidance stresses the need for early consultation between developers and planning authorities plus the need for an archaeological assessment to be carried out early on in the process. Where nationally important remains, whether scheduled or not, and their setting are adversely affected by proposed development there should be a presumption in favour of



their preservation. Where important archaeological remains may exist, field evaluation can help to define the character and extent of the remains and so assist in identifying potential options for minimising or avoiding damage. In cases involving archaeological remains of lesser importance the planning authority will need to weigh the relative importance of the archaeology against other factors, including the need for the proposed development. Where it is not feasible to preserve remains, an acceptable alternative may be to arrange prior excavation and recording of archaeological remains and the publication of the results by means of granting planning permission subject to a negative condition.

#### 4.4 PLANNING POLICY GUIDANCE 15: PLANNING AND THE HISTORIC ENVIRONMENT - 1994

PPG15 emphasises the importance that the Government gives to preserving and enhancing Conservation Areas, Listed Buildings and their settings and other aspects of the historic environment including Registered Parks and Gardens, World Heritage Sites and the wider historic landscape.

#### 4.5 REGIONAL POLICY AND GUIDANCE

The Kent and Medway Structure Plan (adopted 2006) contains five policies relevant to cultural heritage. The full text of the policies can be seen in Appendix D. The policies relate to:

- QL6 Conservation Areas;
- QL7 Archaeological Remains;
- QL8 Buildings of Architectural or Historic Importance;
- QL9 Historic Landscape Features;
- QL10 Heritage Assets – Enabling Development.

#### 4.6 LOCAL POLICY AND GUIDANCE

The Swale Borough Local Plan (adopted 2008) contains four policies relevant to cultural heritage. The full text of the policies can be seen in Appendix D. The policies relate to:

- E14 Development Involving Listed Buildings;
- E15 Development Affecting a Conservation Area;
- E15 Scheduled Ancient Monuments and Archaeological Sites;
- E17 Historic Parks and Gardens.

The proposals will not directly affect any Listed Buildings, Conservation Areas, Scheduled Monuments and Historic Parks and Gardens therefore these policies will not be affected. It was considered that the development may affect archaeological remains and therefore this assessment is compliant with the requirement for archaeological assessment to be undertaken in advance of a planning application. The impact assessment has identified that no archaeological remains will be affected and therefore the development will not affect the planning policies relating to archaeological sites.



## 5.0 CONSULTATION

Consultation was undertaken with the Kent Historic Environment Record, English Heritage and Centre for Kentish Studies for the provision of data for this report.

## 6.0 BASELINE DATA

### 6.1 DESIGNATED SITES

There are no World Heritage Sites, Scheduled Monuments, Listed Buildings Registered Parks and Gardens, Registered Battlefields, Registered Common Land or Conservation Areas within the study area.

### 6.2 ARCHAEOLOGICAL AND HISTORIC BACKGROUND

The National Monuments Record holds details for eleven sites and Kent Historic Environment Record hold details for a further 33 sites within the study area. Further details of these sites can be seen in Appendix E and on WYG Figure 02. The North Kent Rapid Coastal Zone Survey (Wessex Archaeology, 2004) resulted in the addition of a large number of sites to the Historic Environment Record in this area. There are a number of features of unknown date within the study area, however they are considered most likely to be post-medieval, associated with sea defences, mooring points and salt working.

#### 6.2.1 Prehistoric (up to 43AD)

The mudflats and marshes in this area are likely to have been caused by sea level rises resulting in an accumulation of muds and silts. This is anticipated to have occurred by the later Mesolithic (CgMS, 2006). A substantial amount of archaeological work has been undertaken recently associated with the northern distributor road and associated development. This has identified a number of previously unrecorded prehistoric sites in the study area.

Evidence for Mesolithic activity is located outside of the study area and restricted to site located on higher ground overlooking tributaries of the River Swale. There is evidence of a Neolithic site identified just to the west of the study area at Great Grovehurst in the 19<sup>th</sup> century. The records are not very clear, however they indicate a possible settlement site or pit complex. It is probable that this site has been largely destroyed by quarrying at the brickworks and the subsequent construction of the electricity distributor station.

Evidence for Bronze Age and Iron Age activity is also located on the higher ground to the west and south of the study area. Evidence for Bronze and Iron Age linear features, post holes and pits were recorded, associated with the northern distributor road and improvements to the A249, which indicate potential settlement and field systems. In Iwade there was evidence of a Bronze Age trackway, field system and pits, which was followed by a late Iron Age farmstead and roundhouses. Late Bronze Age activity was also recorded within Kemsley in the vicinity of Ridham Avenue.



All the archaeological evidence from the prehistoric period is located upon higher ground than the proposed development site and its immediate surroundings. Prehistoric settlement and field systems are therefore anticipated to lie predominantly just outside of the study area. The study area is likely to have been utilised on an occasional basis to provide access to the river and exploit the natural resources. The types of archaeological remains that may therefore be discovered are most likely to be artefacts of accidental loss, or items such as fish traps or mooring posts. These would most likely have been made of organic materials and may therefore only have survived if buried in silts rapidly after falling into disuse and remained waterlogged. The probability of discovering these remains is very low as their density is likely to be low. The potential to discover previously unrecorded settlement within the vicinity of the development site is considered to be very low.

## 6.2.2 Roman/Romano British (43AD to c.450AD)

The Roman Watling Street ran through Sittingbourne to the south of the study area along the A2. This was a key communication and transportation route through the south east. Numerous settlements are located off the main road, designed to take advantage of the proximity to the route and the good farmland of the area. Numerous finds of Roman material have been made in Sittingbourne and the surrounding area (Ordnance Survey, 1994).

There is limited direct evidence of activity in the Roman period within the study area, however the marshes are likely to have been utilised in a similar manner to the prehistoric period. The potential for archaeological remains of Roman period date in the vicinity of the development site would therefore be limited. If the marshes were utilised for saltworking evidence of these may remain, however they have only been recorded on Elmley marshes on the Isle of Sheppey within the study area to date (Sites 41, 43). There is the potential that some salterns identified as medieval or post-medieval may have had earlier origins, however this can not be confirmed based upon existing evidence. Evidence of pottery production or agriculture on the mainland is likely to be limited to the west of the study area upon the higher ground.

## 6.2.3 The Early Medieval Period (c.450AD to 1066AD)

There is little evidence from the early medieval period within the study area and immediate region. The settlement of the area is inferred from the settlements recorded in the Domesday Book, indicating their establishment within the early medieval period. The Anglo-Saxon chronicle also documents that Haesten traveled up the Thames Estuary with eighty ships and created a fortress at Milton (CgMS, 2005). It is likely that the area immediately on the coast would not have been densely populated due to the potential of sea raids, particularly after the initial Roman withdrawal.

## 6.2.4 Medieval Period (1066 AD to c.1540AD)

In the medieval period it was initially Milton Regis which was the dominant settlement in the area. Milton was recorded as having 309 inhabitants in the Domesday Book and the key industries of the area were farming, saltpans and oyster fisheries (CgMS, 2006). Over the course of the late medieval period and early post-medieval period however Sittingbourne became the main settlement, partly due to its location



on the London to Dover road making it an ideal coaching stop for travellers. Henry V and Henry VIII are both reputed to have stayed in Sittingbourne when traveling to the continent.

Iwade is first recorded in 1179 as *Ywada*. The place name is derived from the Old English and means a 'ford or crossing where yew trees grow'. This relates to the proximity of the village to the presumed crossing to the Isle of Sheppey (Mills, 2003). Sittingbourne is first recorded in 1200 as *Sidingeburn*. The place name is derived from the Old English and probably means 'stream of the dwellers on the slope' which relates to the former River Bourne which flowed through the centre of the town.

The study area and proposed development site is considered likely to have been utilised for summer pasture in the medieval period. Reclamation of the marshes is anticipated to have occurred from the 12<sup>th</sup> century (CgMS, 2006), making them suitable for pasture. This was achieved through the construction of numerous sea walls, remnants of which can be seen across the marshes and then draining the enclosed areas. The topography of the marshes is therefore likely to be representative of this medieval and post-medieval drainage. It is also likely that a number of the saltings recorded from the post-medieval period would have had their origins in the medieval period.

## 6.2.5 Post Medieval (c.1540AD to 1900AD) and Modern (1900AD to present)

The reclamation of the marshes continued through the post-medieval period, although the area of the proposed development is considered to have remained within a marginal area. The historic mapping does not indicate that the area was suitable for settlement or intensive industry. Iwade was described as a very poor location and thinly inhabited in the 18<sup>th</sup> century as the surrounding nature of the marsh discouraged habitation (Hasted, 1798). The study area probably continued to be largely utilised for summer pasture. The river itself was also used for oyster cultivation and oyster beds are recorded (Site 31 and 32).

There are numerous records of post-medieval and modern vessels which have been wrecked or beached in the vicinity of the site. These vessels are largely of 19<sup>th</sup> century date and may have been deliberately beached in areas perceived to be of little value, once their useful working life was over (e.g. Sites 1-4, 6-11 and 23). A number of these hulks may have been associated with the barge building industry which was located to the south-east in Milton Creek and Crown Quay.

Although there was a paper mill on the banks of Milton Creek since the mid 19<sup>th</sup> century the main paper mill at Kemsley was built in 1923 ([http://www.kentrail.co.uk/ridham\\_dock.htm](http://www.kentrail.co.uk/ridham_dock.htm)) and the village of Kemsley was built to provide housing for the workers at the mill. The location of the mill utilised the proximity of the River Swale for transporting raw materials and finished goods and there was a tramway connection between Ridham Dock to the north and the mill. A light railway was also constructed between the mill and the centre of Sittingbourne. There are a number of features which are anticipated to be associated with the paper mill such as a former wharves (Sites 18-20 and 25), slipway (Site 17) and pipeline (Site 24).



Construction on Ridham Dock was started in 1913 but was interrupted by the First World War, only being completed in 1919 when it was then used by the Royal Navy. It was taken over by the Merchant Navy in 1922. Four anti-tank cubes adjacent to the dock were probably placed there for its protection during the Second World War (Site 13). It remained in use until the 1990s serving both the paper mill and steelworks on the Isle of Sheppey. Other features adjacent to the dock are likely to predate it such as a timber jetty and wharf (Sites 14 and 15).

Across the River Swale much of Elmley Marshes has remained as undeveloped salt marsh. Elmley cement works (Site 5) was the exception however and numerous features associated with the operation and transportation from the site have been recorded (Sites 30, 33-35 and 38).

Adjacent to the proposed development site a possible former shooting hide has been identified, but this only approximately 1sqm in size (Site 16). South of the site Grovehurst Dock (Site 21) was used to service the Grovehurst brick and tile works which were located to the west of the study area.

The construction of the northern distributor road in the south of the study area coupled with improved transport links on the A249 and Sheppey Crossing have resulted in considerable changes to the study area in the 21<sup>st</sup> century. The area is seeing rapid expansion of residential development adjacent to Kemsley village and industrial development on the former Coldharbour Marshes.

## 7.0 HISTORIC MAPPING SURVEY

Extracts of selected historic maps can be seen in Appendix F with the location of the proposed development site indicated.

The earliest mapping examined for the site was the Andrews and Drury map of 1769. This indicates that the proposed development site and much of the surrounding area was still within the marshland adjacent to the River Swale. The marsh wall was indicated to be much closer to Iwade and therefore the site was likely to have remained marshland which was utilised for summer pasture and regularly inundated.

The Iwade tithe map and apportionment (1836) indicates that the development site and surrounding area remained undeveloped. The apportionment described the land parcel within which the development site falls (78) as Forty Acre Marsh and seawall, whilst the land to the east (81) was recorded as seawalls, salt and mudflats. The building recorded later as Cold Arbour was present by the time of this mapping.

The first edition Ordnance Survey mapping (1869) indicated that relatively little had altered within the site and the pattern of creeks and land parcel boundaries had altered little from the tithe map. The Elmley Cement Works had been constructed by this period.



The 1898 Ordnance Survey map depicted several changes in the vicinity of the site. Saltings are recorded to the east and north of the development site to the east of Coldharbour Wall. There is also an area to the south of the site which appears to be a berthing bay in the area which later became Grovehurst Dock.

The only significant alteration on the 1909 OS mapping was the construction of Grovehurst Dock. This was served by a tramway which linked it to the brickworks at Grovehurst, south-west of the development site. There were few alterations to the study area by the time of the 1938 OS mapping with the exception of the establishment of the gravel pit just to the west of the development site.

By the time of the Ordnance Survey map of 1961 the study area had altered substantially. The paper mill at Kemsley had become a significant industrial feature and led to the development of the village of Kemsley. To the north of the development site Ridham Dock had been developed, whilst Grovehurst Dock was annotated as disused. To the west of the development site the gravel pit had become a refuse tip which was served by a tramway from Kemsley. The actual location of the proposed development was however still undeveloped.

By the 1966 Ordnance Survey mapping the tip had extended eastwards, but still remained just outside of the proposed new development. Within the remainder of the site a number of potential earthworks had been created sub-dividing the east of the development site. This may have been to assist with flood defence and regulating the water levels within the marsh. By 1975 a block works (concrete works) had been established on the former tips. This included several buildings, tanks and a hopper. The tramline to the west of the site had also been replaced by a road.

## 8.0 HISTORIC LANDSCAPE CHARACTER

The historic landscape character of the study area can be seen on Figure 03 in Appendix E. The historic landscape character of the majority of the study area is reclaimed marshland, predominantly small enclosures on the mainland, with some areas of irregular enclosures on the Isle of Sheppey. Surrounding the marshland are areas of salt marsh and mud flats in the intertidal zones. The proposed development site is encompassed within an area designated as industrial complexes and factories and is linked with the Knauf plasterboard factory site to the north-west.

## 9.0 AERIAL PHOTOGRAPHS

A selection of aerial photographs, held by the Kent HER, covering the proposed development site were examined. A list of the photographs can be seen in the Bibliography. No further sites or features of potential archaeological interest were identified from the aerial photographs. The photographs correlate



with the historic mapping with regard to the extent of previous development. Within the areas of the site which were not developed the ground cover appeared to remain as rough pasture or marshland.

## 10.0 SITE WALKOVER SURVEY

A site walkover survey was undertaken on 22<sup>nd</sup> April 2009. The weather was dry and sunny. Photographs of the site can be seen in Appendix C. The site is currently under hard standing and is a working waste disposal and processing site. Within the site there are two modern processing sheds, a number of large storage tanks and pre-fabricated temporary buildings which serve as site offices. The proposed development will be largely situated within the westerly shed with the cooling system adjacent to this on the modern hard standing. There were no features of archaeological or historical interest noted during the site walkover survey.

## 11.0 ARCHAEOLOGICAL POTENTIAL AND IMPACT ASSESSMENT

There are no recorded sites within the proposed development area. The closest recorded sites are the former shooting hide (Site 16), former oyster beds (Site 32) and Grovehurst Dock (Site 21). All of these sites are sufficiently distant from the proposed development that they will not be impacted.

The potential to discover previously unrecorded archaeological remains within the proposed development site is considered to be very low. The proximity of the site to the river means that the area is highly unlikely to have been settled in antiquity, with settlement being focused upon higher ground to the west and south of the study area. The area of the site is likely to have been utilised only for river access or exploitation of marshland resources which area likely to have left little in the way of archaeological evidence.

The previous quarrying and tipping to the immediate west of the site will have removed archaeological evidence from this area and may have encroached into the current site. The modern construction associated with the block works (concrete works) and more recently with the waste processing site will have further disturbed archaeological remains. No evidence for archaeological remains have been recorded within the site during the most recent construction phases.

The proposed development will result in only minor groundworks associated with the cooling system to the east of the existing building. It is considered unlikely that the groundworks would penetrate the modern disturbance in this area. The potential to discover previously unrecorded archaeological remains is therefore considered very low.

The historic landscape character of the site has already been classified as being composed of industrial complexes and factories. The proposed development will therefore be consistent with the historic landscape character.



The potential impact upon the setting of heritage features has been considered. There are no designated heritage features within 1km of the site. The stack will rise approximately 27.5m above the existing roofline. Within the context of the surrounding industrial sites, including the nearby papermill, plasterboard factory and warehousing the stack will be an insignificant addition to an already industrial landscape. There will therefore be no impact upon the setting of heritage features.

## 12.0 EVALUATION AND MITIGATION

No evaluation or mitigation is proposed for the development due to the lack of identified impacts upon recorded archaeological sites and the very low potential to discover previously unrecorded archaeological remains. The residual significance of effect of the proposed development upon archaeological remains is considered to be neutral.



## 13.0 REFERENCES

- DoE (1990) Planning Policy Guidance Note 16 Archaeology and Planning.
- DoE (1994) Planning Policy Guidance Note 15 Planning and the Historic Environment.
- Kent County Council & Medway Council (2006) Kent and Medway Joint Structure Plan
- Hasted (1798) 'Parishes: Iwade', *The History and Topographical Survey of the County of Kent: Volume 6* pp. 203-206. URL: <http://www.british-history.ac.uk/report.aspx?compid=62959> Accessed April 2009.
- HMSO (1979) Ancient Monuments and Archaeological Areas Act.
- HMSO (1990) Planning (Listed Buildings and Conservation Areas) Act.
- Mills, A.D. (2003) Oxford Dictionary of British Place Names. Oxford: Oxford University Press
- Multi Agency Geographical Information for the Countryside ([www.magic.gov.uk](http://www.magic.gov.uk)). Accessed April 2009.
- Ordnance Survey (1994) Historical Map and Guide, Roman Britain.
- Swale Borough Council (2008) Swale Borough Local Plan
- [http://www.kentrail.co.uk/ridham\\_dock.htm](http://www.kentrail.co.uk/ridham_dock.htm) Accessed April 2009

### Historic Mapping

- Andrews and Drury Map of Kent, 1769
- Iwade Tithe Map and Award, 1836
- Ordnance Survey Mapping 6" to 1 mile/1:10,560 1869, 1896, 1909, 1938, 1961, 1966
- Ordnance Survey Mapping 1:10,000 2009

### Aerial Photographs

Sortie number	Frame number	Run	Date
106GUK144	4195 & 4196		1 <sup>st</sup> May 1946
HSLUK9194	6574 – 6576	9	25 June 1961
HSL Kent 6711	1100	30	13 June 1967
HSL Kent 679	1222 & 1223	29	13 June 1967
KCC	3285	190	1 <sup>st</sup> June 1985
Aerofilms 95C/386	8915	13	27 <sup>th</sup> July 1995
UKP005 Block 3	6565	8	30 April 1999



## Appendix A – Assessment Methodology



## Cultural Heritage Impact Assessment Methodology

No standard method of evaluation and assessment is provided for the assessment of significance of effects upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State’s criteria for Scheduling Monuments (PPG16, Annex 3), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgement is used in conjunction with these criteria to undertake the impact assessment.

### Value

The table below provides guidance on the assessment of cultural heritage value on all archaeological sites and monuments, historic buildings, historic landscapes and other types of historical site such as battlefields, parks and gardens, not just those that are statutorily designated.

Value	Examples
Very High	World Heritage Sites, Scheduled Monuments of exceptional quality, or assets of acknowledged international importance or can contribute to international research objectives Grade I Listed Buildings and built heritage of exceptional quality Grade I Registered Parks and Gardens and historic landscapes and townscapes of international sensitivity, or extremely well preserved historic landscapes and townscapes with exceptional coherence, integrity, time-depth, or other critical factor(s)
High	Scheduled Monuments, or assets of national quality and importance or than can contribute to national research objectives Grade II* and Grade II Listed Buildings, Conservation Areas with very strong character and integrity, other built heritage that can be shown to have exceptional qualities in their fabric or historical association. Grade II* and II Registered Parks and Gardens, Registered Battlefields and historic landscapes and townscapes of outstanding interest, quality and importance, or well preserved and exhibiting considerable coherence, integrity time-depth or other critical factor(s)
Medium	Designated or undesignated assets of regional quality and importance that contribute to regional research objectives Locally Listed Buildings, other Conservation Areas, historic buildings that can be shown to have good qualities in their fabric or historical association Designated or undesignated special historic landscapes and townscapes with reasonable coherence, integrity, time-depth or other critical factor(s) Assets that form an important resource within the community, for educational



Value	Examples
	or recreational purposes.
Low	Undesignated assets of local importance Assets compromised by poor preservation and/or poor survival of contextual associations but with potential to contribute to local research objectives. Historic (unlisted) buildings of modest quality in their fabric or historical association Historic landscapes and townscapes with limited sensitivity or whose sensitivity is limited by poor preservation, historic integrity and/or poor survival of contextual associations. Assets that form a resource within the community with occasional utilisation for educational or recreational purposes.
Negligible	Assets with very little or no surviving cultural heritage interest. Buildings of no architectural or historical note. Landscapes and townscapes that are badly fragmented and the contextual associations are severely compromised or have little or no historical interest.

## Magnitude

The magnitude of the potential impact is assessed for each site or feature independently of its archaeological or historical value. Magnitude is determined by considering the predicted deviation from baseline conditions. The magnitude of impact categories are adapted from the Transport Assessment Guidance (TAG Unit 3.3.9) and Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07.

Magnitude of Impact	Typical Criteria Descriptors
Substantial	Impacts will damage or destroy cultural heritage assets; result in the loss of the asset and/or quality and integrity; cause severe damage to key characteristic features or elements; almost complete loss of setting and/or context of the asset. The assets integrity or setting is almost wholly destroyed or is severely compromised, such that the resource can no longer be appreciated or understood. (Negative) The proposals would remove or successfully mitigate existing damaging and discordant impacts on assets; allow for the restoration or enhancement of characteristic features; allow the substantial re-establishment of the integrity, understanding and setting for an area or group of features; halt rapid degradation and/or erosion of the heritage resource, safeguarding substantial elements of the heritage resource. (Positive)
Moderate	Substantial impact on the asset, but only partially affecting the integrity; partial loss of, or damage to, key characteristics, features or elements; substantially



Magnitude of Impact	Typical Criteria Descriptors
	<p>intrusive into the setting and/or would adversely impact upon the context of the asset; loss of the asset for community appreciation. The assets integrity or setting is damaged but not destroyed so understanding and appreciation is compromised. (Negative)</p> <p>Benefit to, or restoration of, key characteristics, features or elements; improvement of asset quality; degradation of the asset would be halted; the setting and/or context of the asset would be enhanced and understanding and appreciation is substantially improved; the asset would be bought into community use. (Positive)</p>
Slight	<p>Some measurable change in assets quality or vulnerability; minor loss of or alteration to, one (or maybe more) key characteristics, features or elements; change to the setting would not be overly intrusive or overly diminish the context; community use or understanding would be reduced. The assets integrity or setting is damaged but understanding and appreciation would only be diminished not compromised. (Negative)</p> <p>Minor benefit to, or partial restoration of, one (maybe more) key characteristics, features or elements; some beneficial impact on asset or a stabilisation of negative impacts; slight improvements to the context or setting of the site; community use or understanding and appreciation would be enhanced. (Positive)</p>
Negligible	<p>Very minor loss or detrimental alteration to one or more characteristics, features or elements. Minor changes to the setting or context of the site. No discernible change in baseline conditions (Negative).</p> <p>Very minor benefit to or positive addition of one or more characteristics, features or elements. Minor changes to the setting or context of the site No discernible change in baseline conditions. (Positive).</p>
No Impact	No impact upon cultural heritage baseline conditions. Should there be no impact an assessment of significance of effects will not be undertaken

Magnitude (scale of change) is determined by considering the predicted deviation from baseline conditions. Quantifiable assessment of magnitude has been undertaken where possible. In cases where only qualitative assessment is possible, magnitude has been defined as fully as possible.

During the assessment any embedded mitigation has been considered in the impact assessment and this is clearly described in this section (cross referring the development description). Therefore, the magnitude of the impacts described herein will be stated before and after additional mitigation has been taken into consideration.



Impacts may be of the following nature and will be identified as such where relevant:

- Negative or Positive.
- Direct or indirect.
- Temporary or permanent.
- Short, medium or long term.
- Reversible or irreversible.
- Cumulative.

### Significance

By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the effect can be determined. This is undertaken following the table below. The significance of effects can be beneficial or adverse.

Sensitivity of Receptor	Magnitude of Impact			
	Substantial Impact	Moderate Impact	Slight Impact	Negligible Impact
<b>Very High</b>	Major	Major - Intermediate	Intermediate	Neutral
<b>High</b>	Major - Intermediate	Intermediate	Intermediate - Minor	Neutral
<b>Medium</b>	Intermediate	Intermediate - Minor	Minor	Neutral
<b>Low</b>	Intermediate - Minor	Minor	Minor - Neutral	Neutral
<b>Very Low</b>	Minor- Neutral	Neutral	Neutral	Neutral

Significance should always be qualified as in certain cases an effect of minor significance could be considered to be of great importance by local residents and deserves further consideration.

The significance of effect is considered both before and after additional mitigation measures proposed have been taken into account.



## Level of Confidence

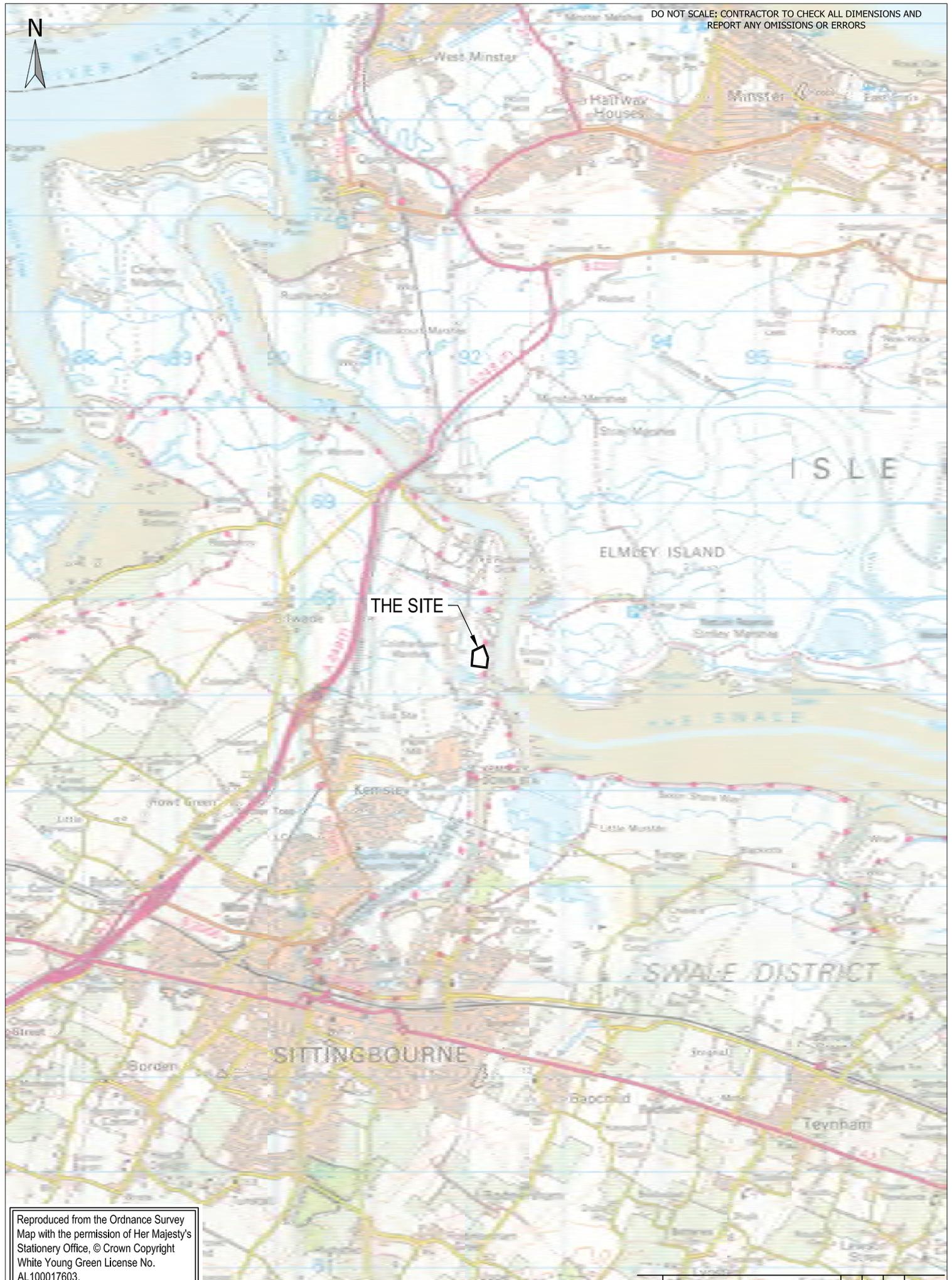
Given that predictions can only be as accurate as the data they are based on it is important to attribute a level of confidence to which the significance of cultural heritage effects has been assessed. The table below defines the confidence levels referred to in this report.

Confidence Level	Description
High	The significance of the cultural heritage effect is an informed estimate likely to be based on reliable data or subjective judgement with reference to similar schemes. Further information would not result in any change to assessment of significance.
Low	The significance of the cultural heritage effect is a best estimate likely to be based on subjective judgement without reference to similar schemes. Further information would be needed to confirm assessment of significance.



## Appendix B – Site Location and Proposed Development

DO NOT SCALE; CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS



THE SITE

Reproduced from the Ordnance Survey Map with the permission of Her Majesty's Stationery Office, © Crown Copyright White Young Green License No. AL100017603.

REV	DESCRIPTION	BY	CHK	APP	DATE

ARNDAL COURT  
HEADINGLEY  
LEEDS  
LS6 2UJ  
TEL: +44 (0)113 278 7111  
FAX: +44 (0)113 275 9023  
email: enviro@wyg.com



Client:  
**COUNTRYSTYLE HEAT & POWER**

Project: A054649  
**RIDHAM DOCK  
CULTURAL HERITAGE ASSESSMENT**

Drawing Title:  
**SITE LOCATION PLAN**

Scale @ A4 1:50,000	Drawn CM	Date 06.05.09	Checked KH	Date 08.05.09	Approved PH	Date 08.05.09
Project No. A054649	Office 410	Type 4597	Drawing No. 01	Revision		



## Appendix C – Site Photographs



**Photograph 1: Existing building within which biomass plant will be installed. Cooling system to be located adjacent to building.**



**Photograph 2: Existing building within which biomass plant will be installed. Cooling system to be located adjacent to building.**



## Appendix D – Planning Policies



## **Kent & Medway Structure Plan, 2006**

### **Policy QL6: Conservation Areas**

The primary planning policy towards Conservation Areas is to preserve or enhance their special character or appearance. Development within Conservation Areas should preserve or enhance their character or appearance. Development which would harm the character or appearance of a Conservation Area will not be permitted.

District planning authorities should:

- (i) include policies within Local Development Documents that protect, within Conservation Areas,
- (ii) the plan form, buildings, architectural features, archaeological sites, trees, streets and spaces, and the relationships between these features, which contribute to their special character and setting;
- (iii) review the boundaries of existing Conservation Areas and, where appropriate, amend them and/or identify new conservation areas;
- (iv) carry out Conservation Area appraisals to identify important features or characteristics which need to be protected and develop strategies for the enhancement of Conservation Areas.

### **Policy QL7: Archaeological Sites**

The archaeological and historic integrity of Scheduled Ancient Monuments and other important archaeological sites, together with their settings, will be protected and, where possible, enhanced. Development which would adversely affect them will not be permitted.

Where important or potentially important archaeological remains may exist, developers will be required to arrange for archaeological assessment and/or field evaluation to be carried out in advance of the determination of planning applications.

Where the case for development affecting an archaeological site is accepted, the archaeological remains should be preserved in situ. Where preservation in situ is not possible or justified, appropriate provision for preservation by record will be required.

### **Policy QL8: Buildings of Architectural or Historic Importance**

Listed buildings will be preserved and their architectural and historic integrity and the character of their settings will be protected and enhanced. Development which will adversely affect them will not be permitted. Changes of use will be permitted where these will provide the best reasonable means of conserving the character, appearance, fabric, integrity and setting of listed buildings.

### **Policy QL9: Historic Landscape Features**

Development will not be permitted which would have an adverse impact upon the historic and archaeological importance, landscape character and physical appearance of historic landscapes, parks and gardens.

Historic landscape features and the settings and views into, and out of, historic landscapes, parks and gardens will be protected and where possible enhanced.

### **Policy QL10: Heritage Assets - Enabling Development**

Development for the purposes of protecting a heritage asset will be permitted only where this is the sole means of protecting and securing the long-term future of the asset. The scale of development shall not exceed that required to achieve this objective and be in a form that minimises dis-benefits.



## Swale Borough Local Plan 2008

### Policy E14 Development Involving Listed Buildings

1. Proposals, including any change of use, affecting a Listed Building, and/or its setting, will only be permitted if the building's special architectural or historic interest, and its setting, are preserved. Proposals will pay special attention to the:
  - a. design, including scale, materials, situation and detailing;
  - b. appropriateness of the proposed use of the building; and
  - c. desirability of removing unsightly or negative features or restoring or reinstating historic features.
2. The total or part demolition of a Listed Building will be wholly exceptional, and will only be permitted provided convincing evidence has been submitted showing that:
  - a. all reasonable efforts have been made to sustain existing uses or viable new uses and have failed;
  - b. preservation in charitable or community ownership is not possible or suitable; and
  - c. the cost of maintaining and repairing the building outweighs its importance and the value derived from its continued use.

If as a last resort, the Borough Council is prepared to consider the grant of a listed building consent for demolition, it may, in appropriate circumstances, consider whether the building could be re-erected elsewhere to an appropriate location. When re-location is not possible and demolition is permitted, arrangements will be required to allow access to the building prior to demolition to make a record of it and to allow for the salvaging of materials and features.

### Policy E15 Development Affecting a Conservation Area

Development (including changes of use and the demolition of unlisted buildings or other structures) within, affecting the setting of, or views into and out of a conservation area, will preserve or enhance all features that contribute positively to the area's special character or appearance. The Borough Council expects development proposals to:

1. respond positively to its conservation area appraisals where these have been prepared;
2. retain the layout, form of streets, spaces, means of enclosure and buildings, and pay special attention to the use of detail and materials, surfaces, landform, vegetation and land use;
3. take into account the current or likely resulting ambience provided by the mix of land uses or traffic;
4. remove features that detract from the character of the area and reinstate those that would enhance it; and
5. retain unlisted buildings or other structures that make, or could make, a positive contribution to the character or appearance of the area.

### Policy E16 Scheduled Ancient Monuments and Archaeological sites

1. Development will not be permitted which would adversely affect a Scheduled Ancient Monument, as shown on the Proposals Map or subsequently designated, or other nationally important monument or archaeological site, or its setting.
2. Whether they are currently known or discovered during the Plan period, there will be a preference to preserve important archaeological sites in-situ and to protect their settings. Development that does not achieve acceptable mitigation of adverse archaeological effects will not be permitted.

Where development is permitted and preservation in-situ is not justified, the applicant will be required to ensure that provision will be made for archaeological excavation and recording, in advance of and/or during development.



## **Policy E17** Historic Parks and Gardens

The Borough Council will seek to protect registered Historic Parks and Gardens, as shown on the Proposals Map, or which are registered during the Plan period. Development that would adversely affect the landscape character, layout and features of a Historic Park and Garden, or its setting, will not be permitted.



## Appendix E– Recorded Cultural Heritage Sites



## Recorded Cultural Heritage Sites (NMR and HER)

Site No	Identifier	Grid Reference	Period	Description
1	NMR900625; TQ 96 NW 37	TQ 92930 66970	?Post-Medieval	The remains of an unidentified hulked vessel
2	NMR900626; TQ 96 NW 38	TQ 92320 67148	?Post-Medieval	The remains of an unidentified hulked vessel
3	NMR9006331; TQ 96 NW 39	TQ 92624 67794	?Post-Medieval	Possible remains of a barge exposed in 1973 and identified from aerial photographs. Lies close to the highwater mark near a ruined jetty.
4	NMR900365; TQ 96 NW 40	TQ 92388 67909	?Post-Medieval	Hulks of unidentified shipping identified during a marine survey in 1973 and again in 1987.
5	NMR1465423; TQ 96 NW 82	TQ 92682 67726	Post-Medieval	19th century cement works at Elmley Hills on the Isle of Sheppey, now largely ruinous, with structures only surviving as foundations. The main exceptions are a section of brick and concrete wall and a large concrete base containing a flue formed by a round-headed brick passage. There are possible remains of settling tanks to the north-east. The associated wharf is of brick and concrete construction with the remains of wooden landing stage at the west end. There are older cement works to the south, the remains of two buildings surviving only as concrete pads and stumps of walling, the cross-wall of a larger structure, and a ruined windpump.
6	NMR967596; TQ 96 NW 42	TQ 9291 6695	Post-Medieval	Webster, a spritsail barge. Built in Lambeth in 1863 and last recorded as a visible hulk in 1986
7	NMR967597; TQ 96 NW 43	TQ 9291 6695	Modern	Juniper, a spritsail barge. Built in Crayford in 1902. She was a roads barge at Gravesend and sunk in the 1950s.
8	NMR1025225; TQ 96 NW 55	TQ 9263 6780	?Post-Medieval	The remains of a single barge lying in the centre of a berth set east-west into the salt marsh.

## Ridham Dock



Site No	Identifier	Grid Reference	Period	Description
9	NMR1025229; TQ 96 NW 59	TQ 9293 6696	?Post-Medieval	The remains of an unidentified barge lying on the salt marsh and identified from aerial photographs. The photographs indicate that it is in an intertidal area and therefore may be subject to inundation.
10	NMR1025231; TQ 96 NW 61	TQ 9225 6713	?Post-Medieval	An area where there may be the remains of a number of unidentified vessels. The area is sheltered by a jetty which is linked to the nearby mill.
11	NMR1025230; TQ 96 NW 60	TQ 9241 6686	?Post-Medieval	An area where there may be the remains of a number of unidentified vessels. Vessels were visible on a 1961 aerial photographic survey of the area.
12	TQ 96 NW 90	TQ 91540 67900	Unknown	Site of a sheepfold.
13	TQ 96 NW 1139	TQ 92337 68055	Modern	Four anti-tank cubes at Clay Reach. These were potentially used to protect Ridham Dock.
14	TQ 96 NW 1141	TQ 92360 67985	Post-Medieval	Timber wharf at Clay Reach. This was reused in the modern period and is built up with modern rubble and debris. There are vertical metal scaffold posts in the intertidal mud marking the course of the channel into the wharf.
15	TQ 96 NW 1143	TQ 92292 67950	Modern	Two parallel timber gantries which lead out into the intertidal mud at Clay Reach. Both are over 1m high in places and both have part of their horizontal timbers intact.
16	TQ 96 NW 1145	TQ 92253 67431	Modern	A possible shooting hide at Clay Reach. This comprises a timber structure with visible remains being no more than 1sqm.
17	TQ 96 NW 1147	TQ 92346 66741	Post-Medieval	Concrete slipway with large wooden beams enclosing a v-shaped wooden structure held together by large iron bolts. Located by Kemsley Marshes.
18	TQ 96 NW 1148	TQ 92452 66743	Post-Medieval	A possible wharf based on what looks like a curved wharf like structure. Located by Kemsley Marshes and close to a second identical opposing structure (Site 19).
19	TQ 96 NW 1149	TQ 92449 66748	Post-Medieval	A possible wharf similar to an opposing structure, Site 20 (potentially part of the same structure). Located by Kemsley Marshes.

## Ridham Dock



Site No	Identifier	Grid Reference	Period	Description
20	TQ 96 NW 1150	TQ 92456 66741	Post-Medieval	A possible wharf similar to an opposing structure, Site 19 (potentially part of the same structure). Located by Kemsley Marshes.
21	TQ 96 NW 1003	TQ 9203 6720	?Post-Medieval	Grovehurst Dock, used from the 1860s as a wharf for the nearby Grovehurst Brick and Tile Works. Located at Elmley Reach, Kemsley Marshes, Iwade. The site is now a sewage works.
22	TQ 96 NW 1050	TQ 92635 66613	?Modern	Navigation beacon
23	TQ 96 NW 1098	TQ 92175 67088	?Post-Medieval	Unidentified vessel located by Kemsley Marshes. No visible remains in 2004, presumed cleared.
24	TQ 96 NW 1038	TQ 92171 67077	?Modern	Pipeline, Elmley reach. No visible remains in 2004.
25	TQ 96 NW 1017	TQ 9223 6703	?Modern	Wharf located by Kemsley Marshes. The wharf has been replaced with an aggregate conveyor; however, timber piles remain on the foreshore.
26	TQ 96 NW 1027	TQ 92234 68163	Unknown	Saltworkings/pits located at Clay Reach. No visible remains in 2004.
27	TQ 96 NW 1026	TQ 92722 66992	Unknown	Two circular features of higher ground identified during a 2002 survey. Features now comprise islands of new saltmarsh.
28	TQ 96 NW 1025	TQ 92680 67003	Unknown	Former sea defence
29	TQ 96 NW 1024	TQ 92277 67151	Unknown	Unidentified circular features located by Kemsley Marshes. No visible remains in 2004.
30	TQ 96 NW 1023	TQ 92563 67800	Unknown	Row of wooden piles. These probably formed part of a jetty of the wharf to which it is attached.
31	TQ 97 NW 1056	TQ 92293 67153	?Post-Medieval	Oyster pits, by Kemsley Marshes. No visible remains in 2004.

# Ridham Dock



Site No	Identifier	Grid Reference	Period	Description
32	TQ 96 NW 1057	TQ 92332 67292	?Post-Medieval	Elmley Reach Oyster Beds. No visible remains in 2004.
33	TQ 96 NW 1093	TQ 9264 6776	?Post-Medieval	Rectangular embanked enclosure located at Elmley. Buried features in field remain unidentified -may be associated with adjacent works.
34	TQ 96 NW 1094	TQ 9253 6782	?Modern	Landing Stage at Elmley Cement Works. Identified during a 2002 survey and comprises large timber piles and whales extend onto foreshore with large iron bolts affixed to them.
35	TQ 96 NW 1095	TQ 92601 67826	?Post-Medieval	Wharf with travelling crane at Elmley Cement Works. Site identified during 2002 survey. Wharf frontage remains and is represented by a single row of vertical square wooden piles.
36	TQ 96 NW 1103	TQ 92739 68105	Modern	Isolated small round wood vertical post adjacent to a scatter of much smaller round wood stakes; there is no apparent distribution pattern to them.
37	TQ 96 NW 1104	TQ 92569 67772	Post-Medieval	Dump comprising brick and tile fragments that litter the foreshore eroding from low cliff.
38	TQ 96 NW 1105	TQ 92524 67591	Modern	Former structure comprising large fragments of brick and concrete. May be related to adjacent former cement works.
39	TQ 96 NW 1106	TQ 92514 67291	Modern	Possible remains of small jetty comprising a regular pattern of vertical plank shaped stakes.
40	TQ 96 NW 1107	TQ 92667 67038	Post-Medieval	Former groyne. The immediate area surrounding the feature is littered with modern finds comprising pottery, glass, and ceramic building material.
41	TQ 96 NW 1108	TQ 92723 67083	Roman	Salt working site comprising compact bricketage, occasional pottery, burnt flint and animal bone.
42	TQ 96 NW 1109	TQ 92750 67106	?Post-Medieval	Four possible frames joined to a single plank.

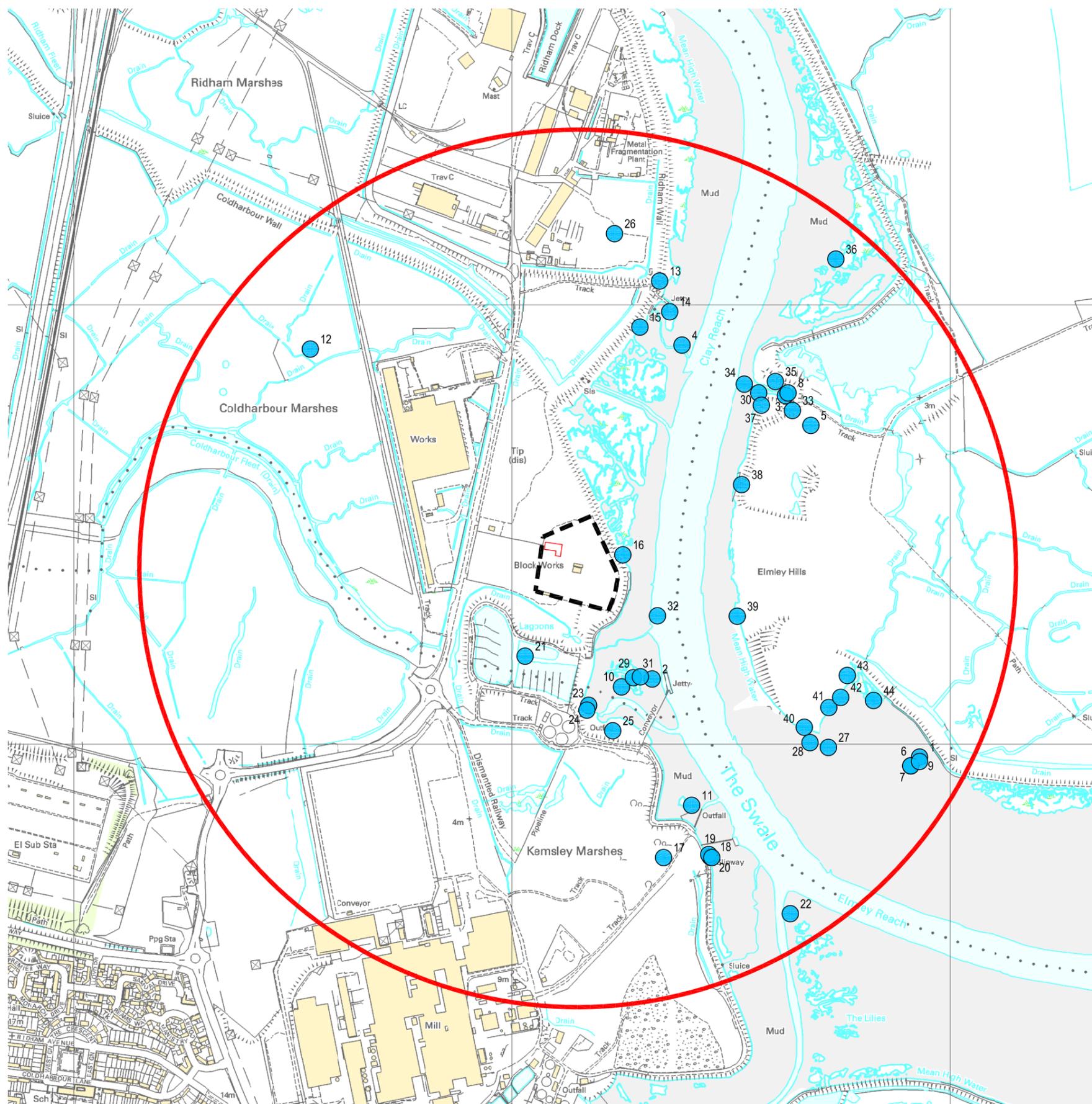
## Ridham Dock



Site No	Identifier	Grid Reference	Period	Description
43	TQ 96 NW 1110	TQ 92765 67156	Roman	Salt working site. Continuation of Site 41.
44	TQ 96 NW 1111	TQ 92825 67099	Unknown	Exposure of organic clay above blue alluvium. No finds recorded.



- KEY**
- SITE BOUNDARY
  - 1km STUDY AREA
  - APPLICATION AREA
  - RECORDED CULTURAL HERITAGE SITE



REV	DESCRIPTION	BY	CHK	APP	DATE
-----	-------------	----	-----	-----	------

Client:  
COUNTRYSTYLE HEAT & POWER

ARNDAL COURT  
HEADINGLEY  
LEEDS  
LS6 2UJ



TEL: +44 (0)113 278 7111  
FAX: +44 (0)113 275 0623  
e-mail: enviro@wyg.com

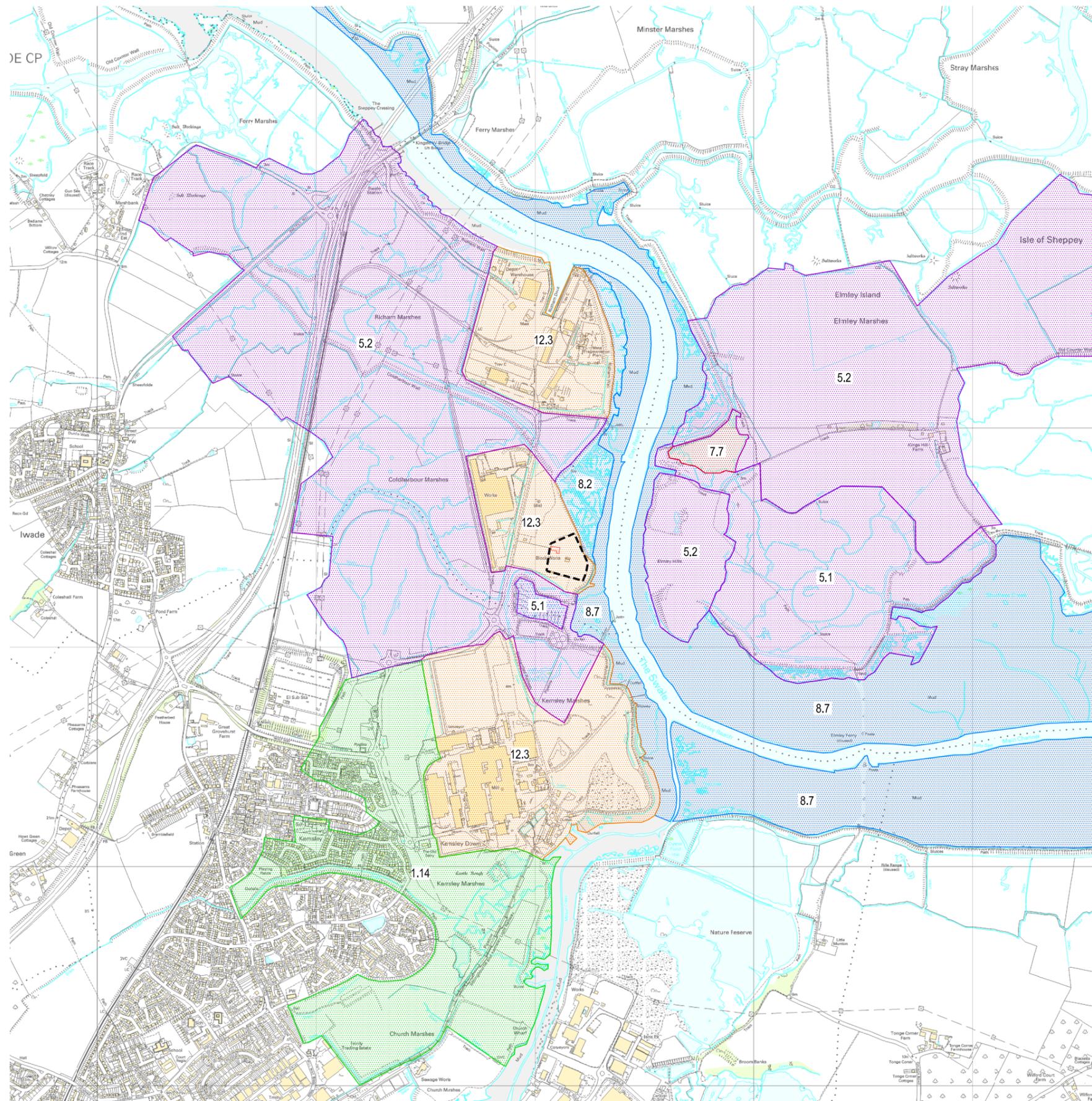
Project: A054649  
RIDHAM DOCK  
CULTURAL HERITAGE ASSESSMENT

Drawing Title:  
RECORDED CULTURAL HERITAGE SITES

Scale @	A3	Drawn	Date	Checked	Date	Approved	Date
1:10,000		CM	06.05.09	KH	08.05.09	PH	08.05.09
Project No.	Office	Type	Drawing No.	Revision			
A054649	4104	597	02				



DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS



- KEY**
- SITE BOUNDARY
  - ▭ APPLICATION AREA
  - ▨ RECLAIMED MARSH (5)
  - ▨ COASTAL (8)
  - ▨ EXTRACTIVE & OTHER INDUSTRY (12)
  - ▨ VALLEY FLOOR & WATER MANAGEMENT (7)
  - ▨ FIELD PATTERNS (1)
  - 1.14 FIELDS PREDOMINANTLY BOUNDED BY TRACKS, ROADS & OTHER RIGHTS OF WAY
  - 5.1 SMALL IRREGULAR ENCLOSURES
  - 5.2 IRREGULAR ENCLOSURES
  - 7.7 FISHPOND, HATCHERY COMPLEXES, NATURAL PONDS & LAKES
  - 8.2 SALT MARSH & ESTUARINE RESOURCES
  - 8.7 MUD FLATS
  - 12.3 INDUSTRIAL COMPLEXES & FACTORIES

REV	DESCRIPTION	BY	CHK	APP	DATE
-----	-------------	----	-----	-----	------

Client:  
COUNTRYSTYLE HEAT & POWER

ARNDAL COURT  
HEADINGLEY  
LEEDS  
LS6 2UJ

TEL: +44 (0)113 278 7111  
FAX: +44 (0)113 275 0623  
e-mail: enviro@wyg.com



Project: A054649  
RIDHAM DOCK  
CULTURAL HERITAGE ASSESSMENT

Drawing Title:  
HISTORIC LANDSCAPE CHARACTER

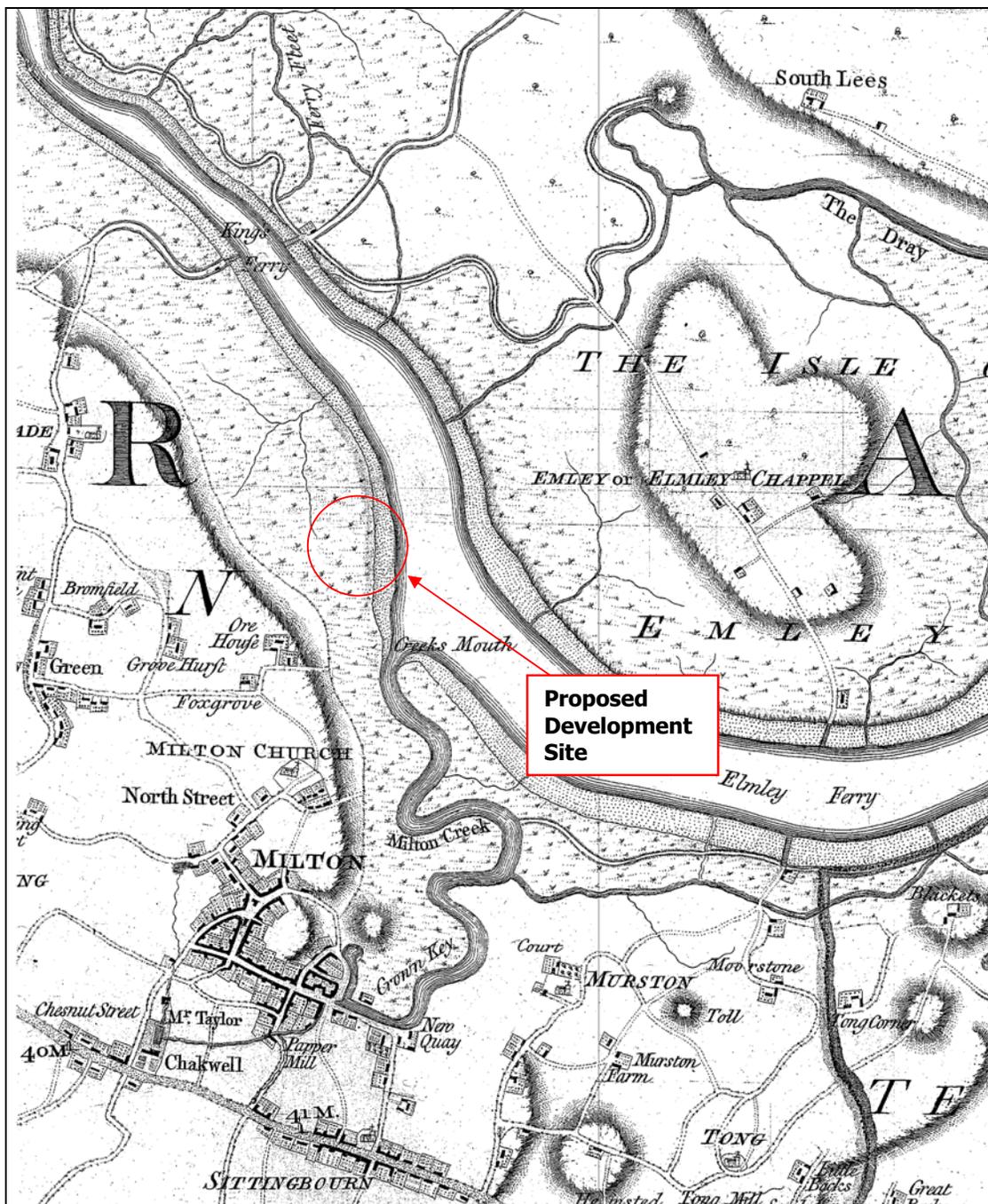
Scale @	A3	Drawn	Date	Checked	Date	Approved	Date
1:20,000	CM	06.05.09		KH	08.05.09	PH	08.05.09
Project No.	Office	Type	Drawing No.	Revision			
A054649	4104	597	03				



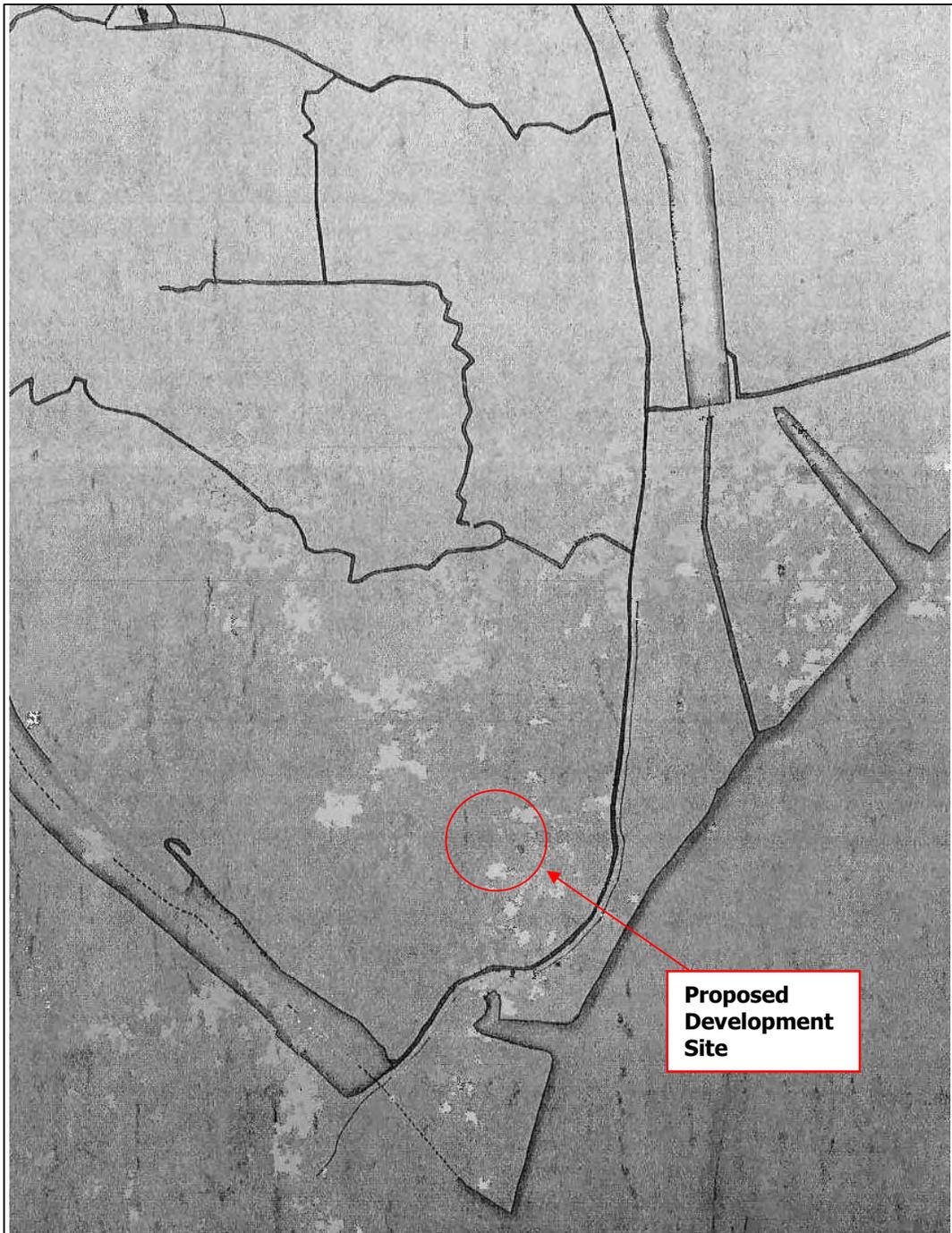
## Appendix F – Historic Mapping

1769-1966

All Mapping Reproduced from the Ordnance Survey Map with the Permission of Her Majesty's Stationary Office,  
© Crown Copyright WYG License No AL100017603

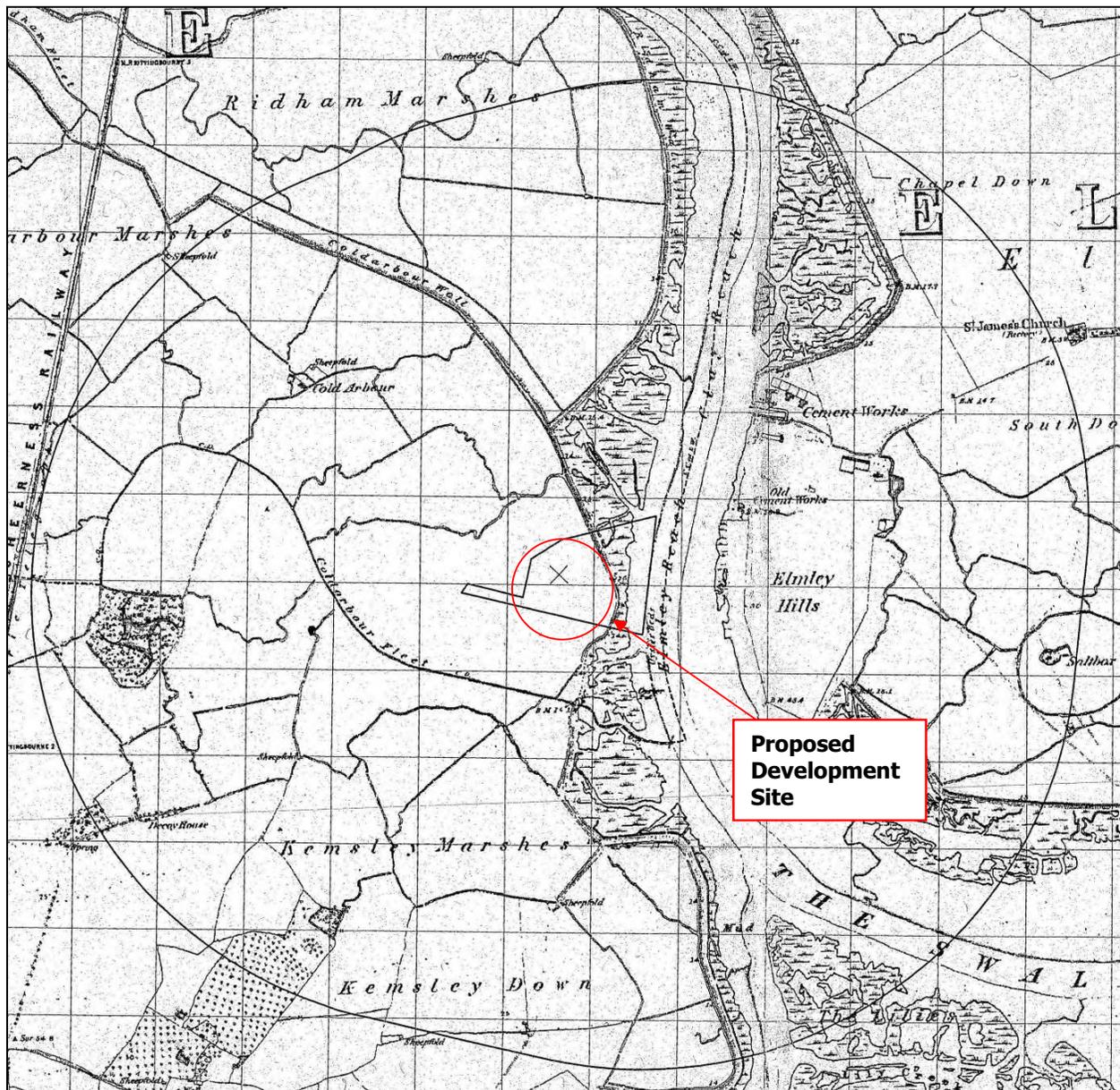


**Andrews and Drury Map, 1769**  
(not to scale)



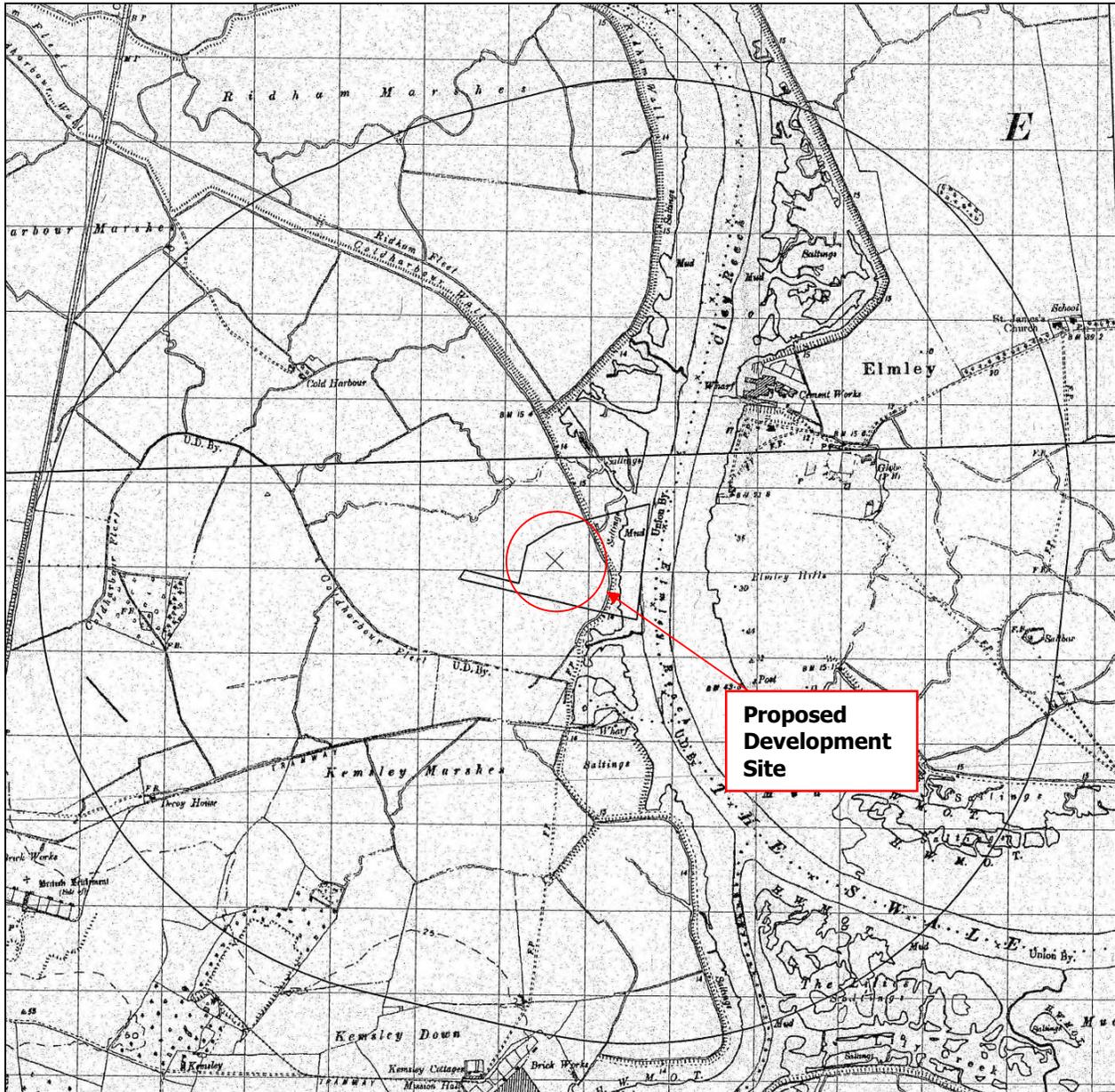
**Iwade Tithe Map, 1836**

(not to scale)



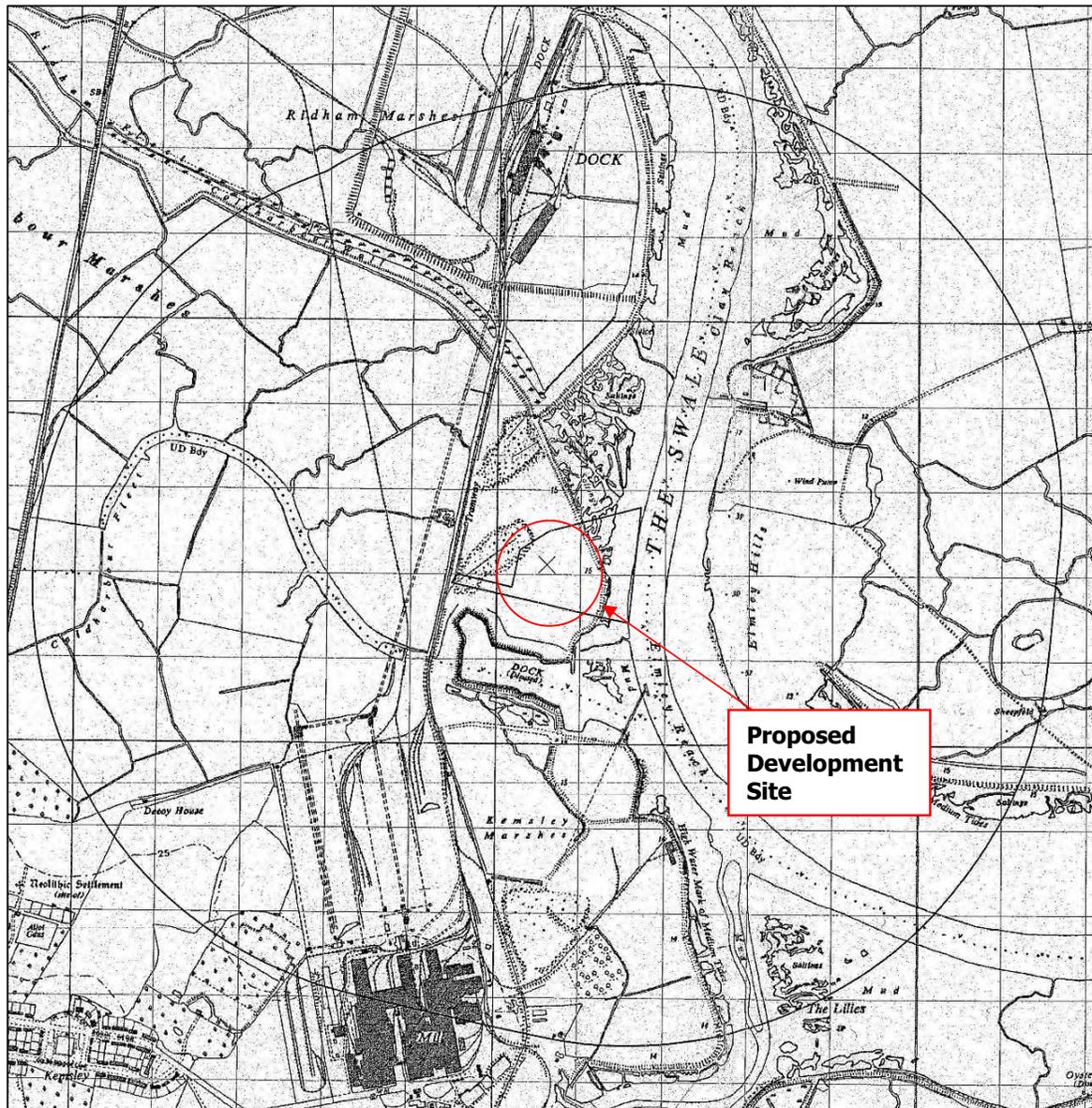
**Ordnance Survey mapping 1869**

(not to scale)



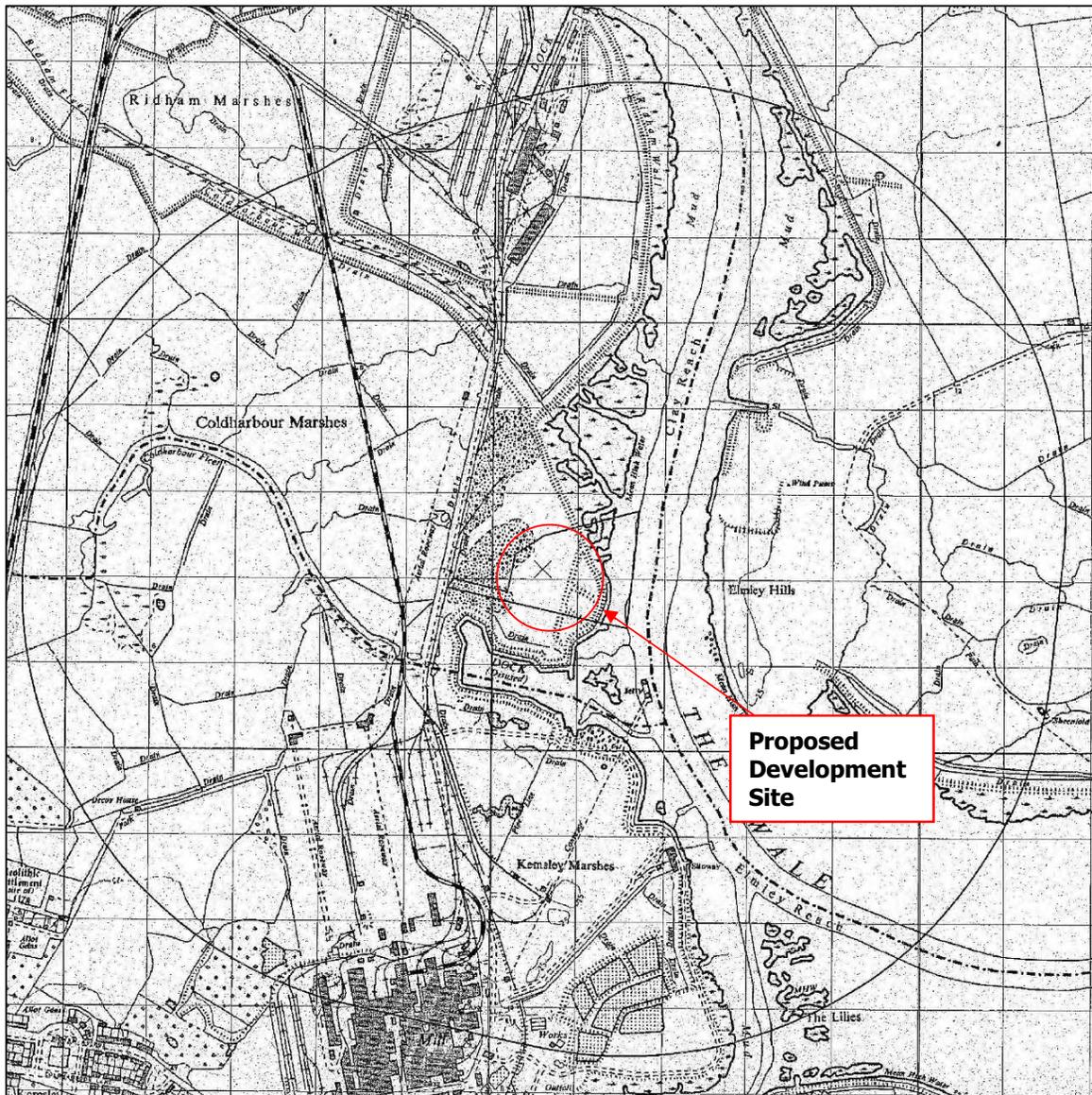
**Ordnance Survey mapping, 1898**  
(not to scale)





**Ordnance Survey mapping, 1961**

(not to scale)



**Ordnance Survey mapping, 1966**

(not to scale)



## Appendix G – Report Conditions



## **Cultural Heritage Desk-Based Assessment, Ridham Dock (Environmental Assessment)**

This report is produced solely for the benefit of Countrystyle Heat and Power and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYG. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors

November 2008  
WYG Environment Planning Transport Ltd