

Preliminary Environmental Information Report Appendix 7.1: Historic Environment Desk Based Assessment

Date: September 2018

## **Environmental Impact Assessment**

**Preliminary Environmental Information Report** 

Volume 6

Appendix 7.1

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This report is also downloadable from the Thurrock Flexible Generation Plant website at: http://www.thurrockpower.co.uk

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# **Table of Contents**

1.	Introduction1		
	1.1	Background	1
	1.2	Site Description	1
	1.3	Project Aim	1
	1.4	Project Archive	1
2.	Me	ethodology	2
3.	Baseline environment		
4.	Co	nclusion and Summary1	4
5.	Re	ferences	5
Fi Fi	gure gure	3.1: Thurrock Flexible Generation Plant HER Data	5
L	ist (	of Figures	
Fi	gure	3.1: Thurrock Flexible Generation Plant HER Data  3.2:Thurrock Flexible Generation Plant Designated Assets	5

# **Summary**

This appendix provides a desk-based heritage assessment in support of the assessment of impacts on the historic environment reported in Volume 3, Chapter 7 of the Preliminary Environmental Information Report.

# **Qualifications**

This document has been prepared by Dan Slatcher BA, MA MClfA, who has 25 years' experience of environmental impact assessment.





# 1. Introduction

## 1.1 Background

1.1.1 RPS was commissioned to produce a heritage assessment in connection with the proposed development of Thurrock Flexible Generation Plant, located near Tilbury, Essex.

# 1.2 Site Description

1.2.1 The proposed development area is located on the north side of the River Thames. To the east of Grays and south of West Tilbury in Essex. The proposal site is bounded on all sides by arable fields. The proposal site comprises a series of arable fields, with an electricity substation at its southern extent.

# 1.3 Project Aim

1.3.1 The aim of this study is to assess the significance of designated heritage assets and to determine, what, if any effect the proposed development may have on that significance.

## 1.4 Project Archive

- 1.4.1 The project archive is held by RPS at the time of writing.
- 1.4.2 This report has been written for and on behalf of RPS by Dan Slatcher BA, MA, MCIfA.





# 2. Methodology

- 2.1.1 During this assessment, Health and Safety considerations were paramount, relevant legislation and guidance were complied with and appropriate health and safety measures adopted at all times.
- 2.1.2 The desk assessment comprised, in the first instance, consultation with the Essex Archaeology Advisory Service and their Historic Environment Record (HER). Data on scheduled monuments, registered parks and gardens and registered battlefields was obtained from Historic England. A review of relevant documentary and archival material held in libraries and archives was undertaken. An iterative approach was adopted during this process to determine the scope of the above consultations/searches. Essex Archives was visited in September 2018.
- 2.1.3 A site visit was undertaken in September 2018 to establish the presence of previously unrecorded heritage assets, and/ or to further assess the potential of recorded heritage assets. In addition, the field visit assessed as appropriate the suitability of any further survey techniques and provided an indication of the likely effect of the proposed development on the settings of heritage assets.
- 2.1.4 The assessment has conformed to the relevant legislation and guidance, including:
  - Code of Conduct (Chartered Institute for Archaeologists, 2014a);
  - Standard and Guidance for Historic Environment Desk Based Assessment (Chartered Institute for Archaeologists, 2014b);
  - Conservation Principles (English Heritage, 2008); and
  - Historic Environment Good Practice Advice in Planning Note 3 The Setting of Heritage Assets Historic England second edition (2018).
- 2.1.5 The proposal comprises the development of the Thurrock Flexible Generation Plant. On the basis of recent experience with similar developments, this assessment has initially focussed on a study area of up to 1 km around the proposal site with respect to below ground archaeology and up to 5km from the boundary of the area zoned for built development with respect to the settings of heritage assets, while taking into consideration evidence from a wider area if appropriate.
- 2.1.6 Within this report, archaeological periods are defined as follows:
  - Prehistoric (comprising Lower Palaeolithic (pre 30,000 BC), Upper Palaeolithic (30,000 10,000BC), Mesolithic (10,000 3,500BC), Neolithic (3,500 2,000BC), Bronze Age (2,000 700BC) and Iron Age (700BC AD43));

- Roman (AD43 AD410);
- Medieval (AD450 AD1540);
- Post Medieval (AD1540 to 1901); and
- Modern (1901 onwards).





# 3. Baseline environment

- 3.1.1 Figure 3.1 shows HER data for a radius of 1 km around the application site, while Figure 3.2 shows data on designated assets within the Study Area. Figure 3.3 shows Historic Landscape Characterisation within the study area.
- 3.1.2 Recorded archaeological remains in the wider area range in date from the prehistoric to the post medieval period.





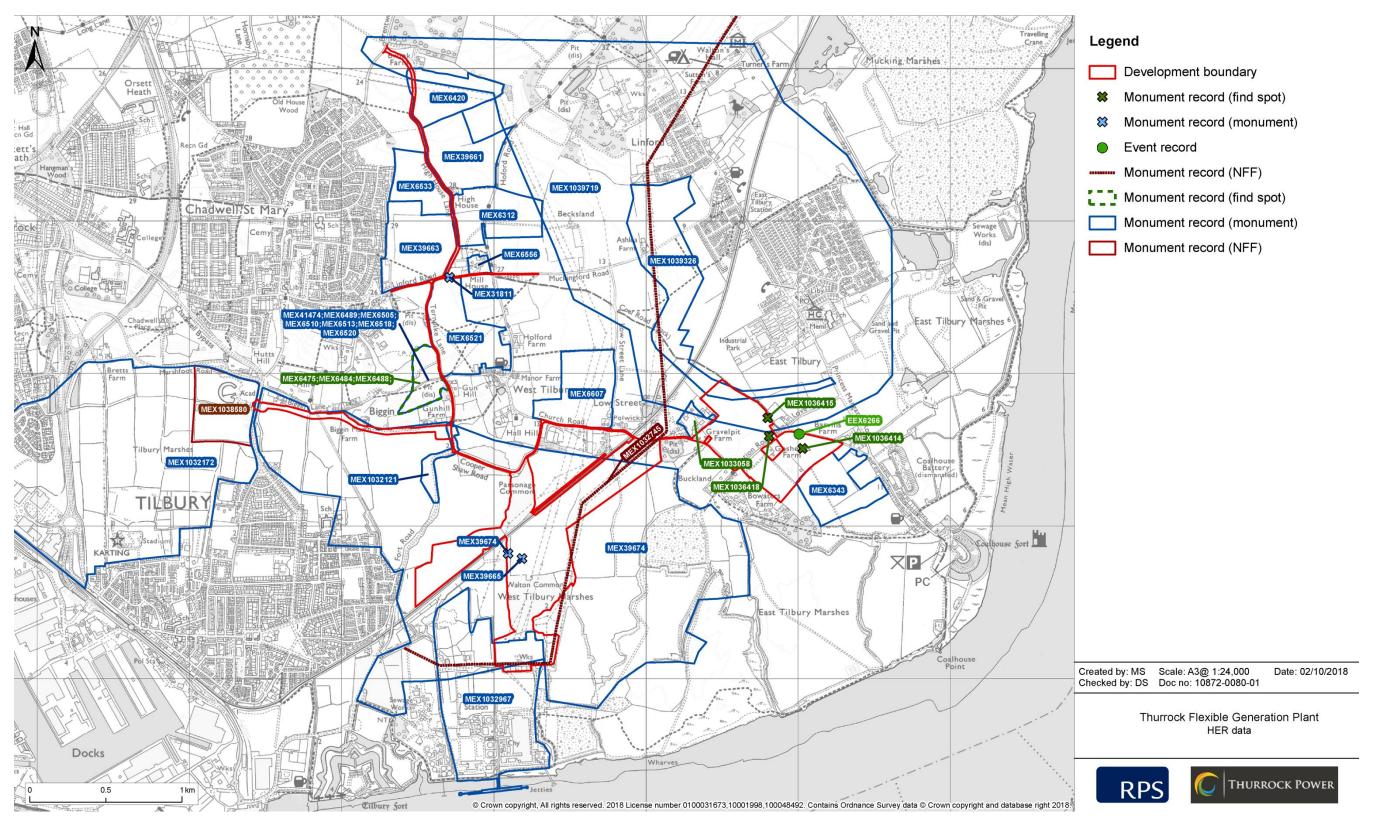


Figure 3.1: Thurrock Flexible Generation Plant HER Data





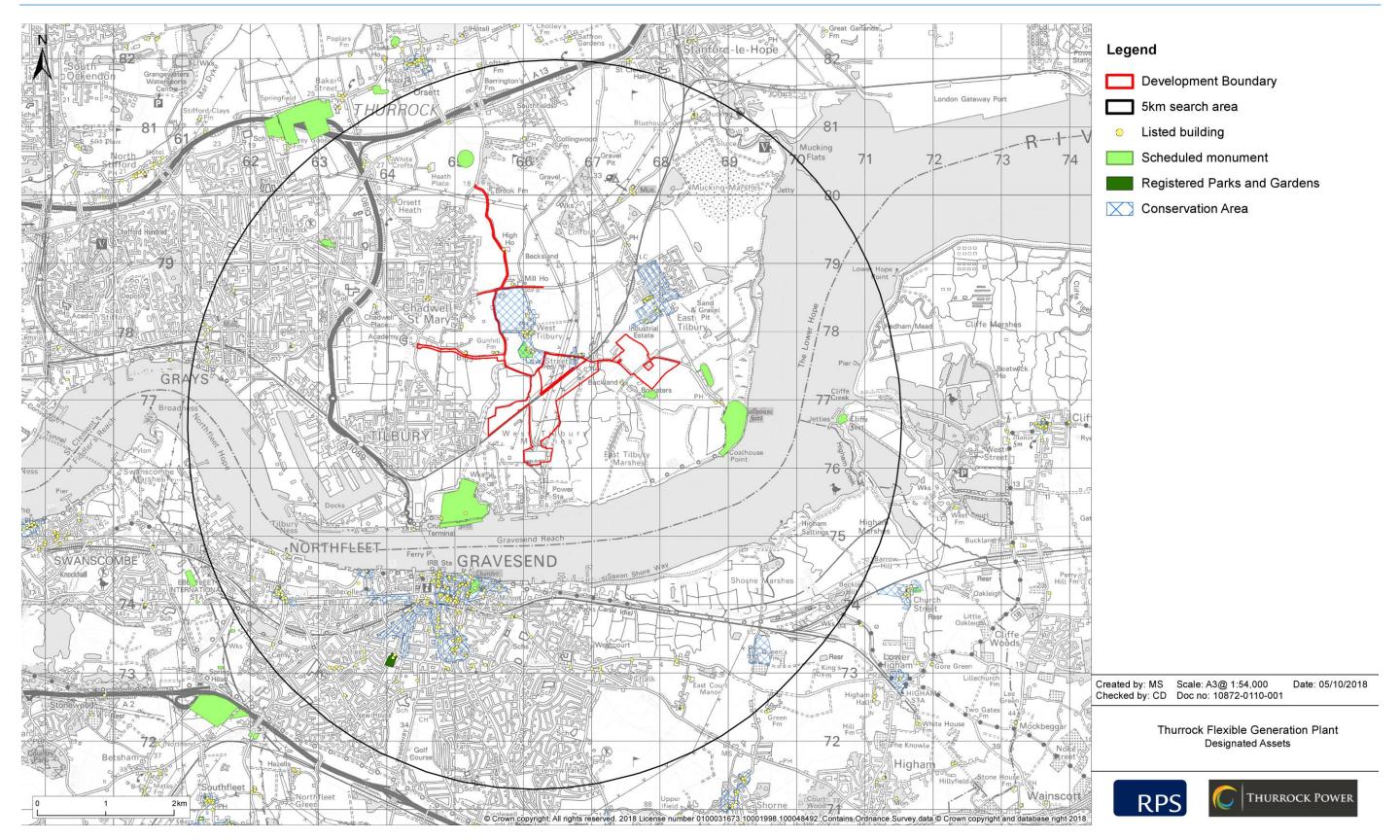


Figure 3.2:Thurrock Flexible Generation Plant Designated Assets





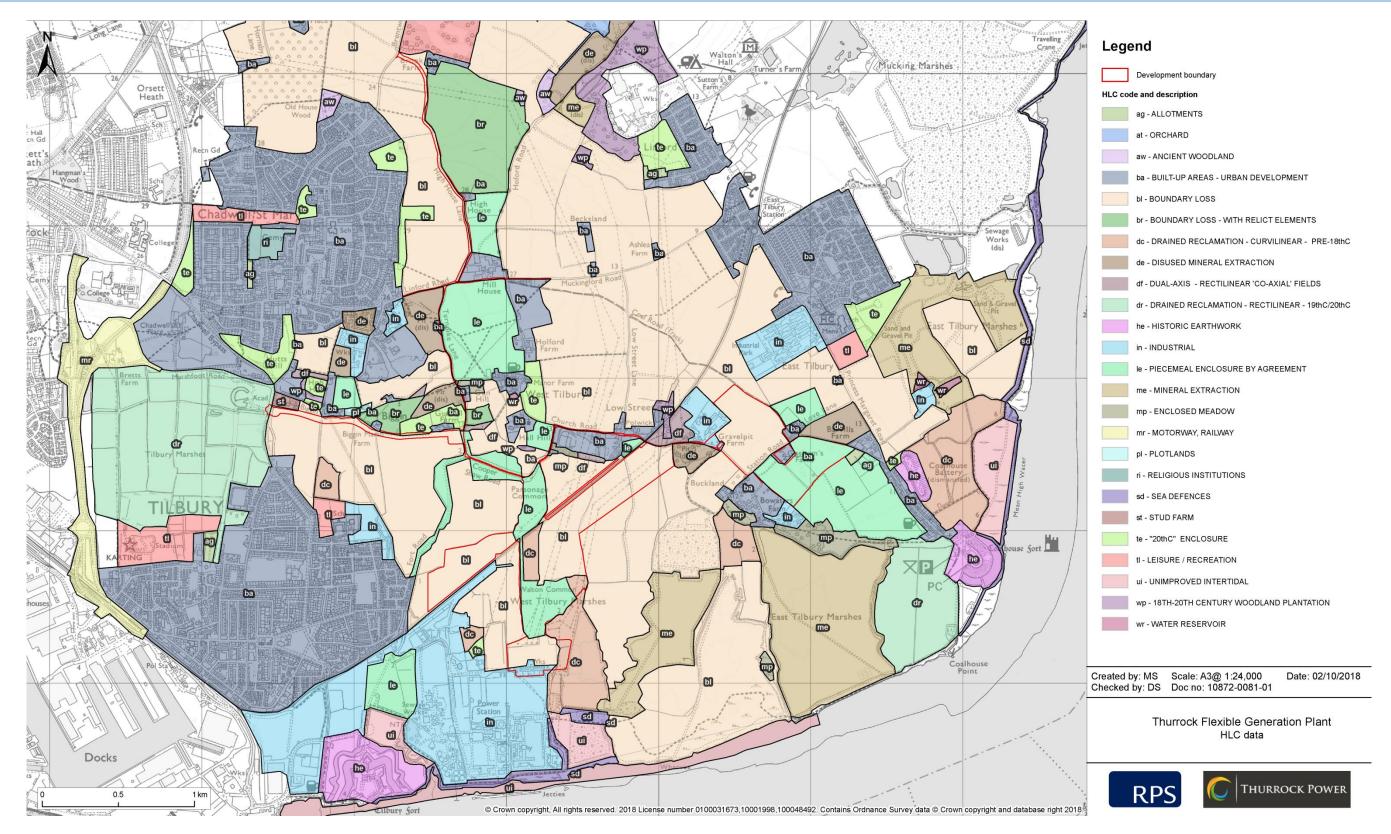


Figure 3.3: Thurrock Flexible Generation Plant HLC Data





### **Prehistoric and Roman**

- 3.1.3 There is evidence for prehistoric and Roman activity in the wider area, mainly in the form of sites and finds.
- 3.1.4 The geology of the proposal site and surrounding area is of deep clayey soils overlain by lighter river alluvium, while the local settlements occupy a raised gravel spur that tapers to a point towards the riverside. An ancient ridgeway running between Chelmsford and Horndon on the Hill in Essex and Higham in Kent is presumed to have crossed the Thames at East Tilbury, to the east of the Proposed Development. (Smith 2008: 5).
- 3.1.5 An isolated piece of worked flint of possible Palaeolithic date was found during the early 20th century at Tilbury Dock, (HER number 1784 TQ652753). A hand-axe was found within the built development of Tilbury (HER Number 1730 TQ646767). A find of implements apparently of Palaeolithic date at Tilbury, the precise provenance of which is unknown, but in a generic location is recorded in the HER (1669 TQ6576). To the east of the Proposed Development, a Lower Palaeolithic, Acheulian hand-axe was found in 1969 in a ploughed field `Marsh Level' and presumably derives from the gravels (HER number 1744 MEX6286).
- 3.1.6 From the beginning of the Holocene, the River Thames underwent a gradual transition from a braided river system to a single meandering channel and the chalk and gravel was progressively buried under deep alluvial deposits as a result of relative sea rise. In some areas where deep gravel deposits have been recorded, peat accumulation dating to the Mesolithic period has been identified underlying the alluvial sedimentation. During the course of the Holocene, further periods of stabilisation of the valley floor and changes in sea level are indicated in the Tilbury area by peat horizons.
- 3.1.7 The peat deposits have been shown to provide significant palaeoenvironmental information considered to be of a national or international importance providing detail of environmental and landscape change during the prehistoric periods (Quest 2013). Although evidence of prehistoric archaeology is limited in the Lower Thames Valley, the paleoenvironmental record indicates woodland clearance, cultivation and animal husbandry was taking place which suggests the presence of prehistoric farming settlements close-by.
- 3.1.8 There is evidence of occupation during the prehistoric period, although the main focus of settlement seems to have been the higher ground nearby at Mucking (Smith 2008: 5).

- 3.1.9 A Neolithic flint axe of Neolithic date was found in West Tilbury Marsh (HER number 1808 TQ652760).
- 3.1.10 A possible Neolithic burial was apparently found at East Tilbury in 1982 according to the HER (HER number 1667 MEX6006). An early Neolithic, small chipped flint axe or chisel, was dredged from the Thames off Tilbury and is now in Colchester Museum (HER number 1671 MEX6022). A perforated whetstone probably of Bronze Age date is recorded in the HER as being found at East Tilbury (HER number 1673 MEX6028).
- 3.1.11 During work in the 1970s at an early 20th century gravel quarry located on the north side of Coalhouse Fort, deep stratification was revealed with large quantities of Late Iron Age and Roman pottery; a coin; an early amphora fragment, apparently a Late Iron Age import and fired clay fragments relating to salt manufacture. The remains extend into the field to the east of the quarry (HER numbers 1743 MEX6279 and 9006 MEX28721).
- 3.1.12 The wider area would have been heavily Romanised and it is likely that extraction of gravel, chalk and clay, as well as salt production at 'Red Hill' sites began during the Roman period (Smith 2008: 5).
- 3.1.13 The line of a Roman road, presumably a successor of the Ridgway referred to at paragraph 3.1.4, above is recorded by the HER as running inland along the line of Princess Margaret Road to the north west from the ford or ferry at East Tilbury. A corresponding road apparently approached the north Kent coast at Higham, where burial evidence has been found. (HER number 1803 MEX6549). Numerous finds of Roman pottery have been made from the wider area including the Thames foreshore (HER numbers 1688 MEX6091, 1689 MEX6092, 1690 MEX6093, 9004 MEX28716).
- 3.1.14 The HER records one or more 'red hills' remains of salt making activity of prehistoric and/ or Roman date at East Tilbury. (HER number 1691 MEX6094). Geophysical survey revealed the locations of two possible salterns on the margins of Mucking Marsh, although the interpretation is tentative (HER number 48575 MEX10490).
- 3.1.15 A substantial Roman building would appear to have existed in the area of St Katherine's Church, East Tilbury where the walls reportedly contain some Roman and later bricks (HER number 1740 MEX6275). The HER notes that it was reported in the 18th century that gravel-digging near the church often uncovered tessellated pavement (HER number 1762 MEX6391).





- 3.1.16 Roman burials with associated grave goods were found in West Tilbury, although their precise location is unknown (HER number 1672 TQ6677). It seems likely that these were found on the gravel terraces further north of the recorded point.
- 3.1.17 The remains of a Roman settlement have been recorded some 700m east of the south east of the study site (HER number 1694 TQ672756). The settlement comprised a number of hut circles, a trackway and an oven, with large quantities of pottery sherds including Samian ware. The site may represent a landing—place for traffic from Kent or elsewhere. Further east, a salt extraction site was identified based on evidence of waste briquetage and Roman pottery.
- 3.1.18 Roman pottery sherds recorded along the Thames foreshore (HER numbers 1828 TQ665754 and 1734 TQ666755), may be associated with this settlement.
- 3.1.19 Roman remains have also been recorded at Tilbury Fort. Finds include including Samian ware and fibulae (HER numbers 1783 TQ64727510 and 1785 TQ650751). Further east a large quantity of Roman pottery was found along the foreshore, suggesting a reasonably dense population locally during the Roman period (1735 TQ667756).
- 3.1.20 There are no recorded remains of confirmed prehistoric or Roman date within or in the immediate vicinity of the proposal site. However, it can be assumed that the area was exploited during both the prehistoric and Roman periods.

#### Medieval

- 3.1.21 The wider area contains an extensive Anglo Saxon settlement, excavated at Mucking, during the mid-1960s to late 1970s. The evidence indicates that the site was settled from the first half of the 5th century until the beginning of the 8<sup>th</sup> (Hamerow 1993: 6-7).
- 3.1.22 Closer to the proposal site, a number of early Saxon sceattas (silver coins) have been found through metal detecting in field located on the west side of Princess Margaret Road, immediately west of St Katherine's Church, East Tilbury. The HER notes that the finds may represent an early Saxon settlement and / or religious site as it lies on the ancient highway from the East Tilbury ferry to Mucking and beyond (HER numbers 9001 MEX28712, 9002 MEX28713, 9003 MEX28714).
- 3.1.23 Bede notes one of the churches founded in c. 653AD by Bishop Cedd was located at 'Tilaburg' on the banks of the Thames. The location of this place-name has not been determined. It may be in either East or West Tilbury (Smith 2008: 5).

- 3.1.24 Several of the local place-names, including Orsett and Tilbury are recorded in the Domesday Book of 1086 and represent pre-existing occupation (Williams and Martin 1992).
- 3.1.25 To the south of the river the place-name 'Gravesend' is first recorded in the Domesday Book of 1086 and is derived from the Old English meaning 'at the groves end' (Glover 1976: 83). Glover notes that the park to the east of Gravesend may be the original grove at the end of which the settlement developed.
- 3.1.26 Northfleet is first mentioned in 975 AD, and is from the Old English meaning the 'north creek, presumably to distinguish it from Southfleet (Glover 1976: 136).
- 3.1.27 A group of earthworks are located some 760 m north of the built part of the application site at West Tilbury and lie south and west of the church and the hall. The earthworks are obscured by gravel workings and farm buildings. The earthworks lie at the edge of the escarpment overlooking the levels towards the River Thames and cover the neck of a promontory. The churchyard, located adjacent to the earthworks and to their east is located on a slight mound. The HER indicates that this is suggestive of the site of an early camp. In addition the HER notes that site is reputed to be the location of Bishop Cedda's palace, Cedda being a Saxon monk who is alleged to have built a cell here in 623 AD and also Elizabeth I's camp for her review of the troops in 1588. Six features were identified within the foundation trenches of an extension for a conservatory. A pit or ditch contained a single sherd of late Romano-British pottery, three flint-and-chalk footings which could not be dated but were probably earlier than the seventeenth century and two postholes or pits which were probably post-medieval in date. The site is a scheduled monument (list entry number 1002199, HER number 6031).
- 3.1.28 Medieval Gravesend was an important and wealthy town, derived from its position on the Thames (Kent County Council, 2004: 5). There was a landing place form the river at Gravesend by the time of the Domesday Book. The town contained a church (St Mary's, apparently first mentioned in the Domesday Book of 1086), with a manor house, probably located next to it. (Kent County Council, 2004: 6).
- 3.1.29 A hospital dedicated to St Mary was founded in Tilbury in c. 1213. The hospital was latterly used as a chapel and last mentioned 1456 (HER number 1652 MEX5948). The Victoria County History notes that at the end of the fourteenth century the hospital was better known as the chapel of St. Margaret and the patronage belonged to the earls of Ormond. It is said to have been a free chapel time out of mind and to own land in East and West Tilbury, Aveley and Mucking (Page and Round, 1907)





- 3.1.30 The Church of St Margaret, now St Katherine, East Tilbury is located some 2.35 km east of the built part of the application site. The building dates from the 12th century and was altered during the 13th and 17th centuries. The structure is of flint, and rubble with some Roman and medieval brickwork, and Reigate dressings. The roofs are tiled. The nave has a late 12th century north arcade with a blocked early 12th century window. The building is listed at Grade I (list entry number 1337129, HER number 1742 MEX6278).
- 3.1.31 During the medieval period the settlement at East Tilbury appears to have been modestly prosperous, apparently through both the river crossing and marshland grazing (Smith 2008: 5).
- 3.1.32 The evidence of later mapping indicates that the Proposed Development itself was probably uninhabited coastal salt marshland and used for common pasture during the later medieval period. A length of the medieval sea wall is thought to survive (HER number 1827 TQ66557575). There is no evidence for medieval settlement activity within or adjacent to the Proposed Development.

### Post-medieval and modern

- 3.1.33 The picture of settlement and activity in the wider area during the early post medieval period was presumably similar to that of the later medieval period. The wider area was significant in the defence of the River Thames from at least the reign of Henry VIII onwards.
- A Henrican artillery battery, East Tilbury Blockhouse, was constructed at Coalhouse Point, some 2.3 km east of the built part of the application site between 1539 and 1541 The fort was one of five blockhouses built along this stretch of the river Thames to defend the approach to London and the dockyards at Woolwich and Deptford. The blockhouse was disarmed in 1553. The site of Coalhouse Wharf and the Coastguard Lookout is thought to be the location of the 1540 blockhouse, a second blockhouse was built subsequently to the seaward side of the first By 1735 this was described a 'inundated and ruined by the sea'.(HER number 45786 MEX10376). It is possible that the remains of the blockhouse lie beneath the mud (http://www.pastscape.org.uk/hob.aspx?hob\_id=1378614). Smith (1974: 142) notes that the East Tilbury Blockhouse is now under water due to coastal recession but that it remains were visible as late as 1735. The HER notes that it was hoped in 1984 that a trial trench would be able to locate it. There is no evidence that it did so, however (HER numbers 1756 MEX6347, 1757 MEX6352).

- 3.1.35 Tilbury Fort is located on low lying ground on the north bank of the River Thames, south east of the modern outskirts of Tilbury and some 1000 m south west of the built part of the Proposed Development at its nearest point. The fort includes the buried remains of a blockhouse constructed during the reign of Henry VIII in 1539. The blockhouse was superseded by the far larger and more complex fort and battery, pentagonal in plan, with arrowhead-shaped bastions projecting from four of the angles, allowing guns positioned behind the parapets to command wide areas and to be mutually supportive in close quarter defence. This was designed by the chief engineer to Charles I, Sir Bernard de Gomme and succeeded the blockhouse in the late 17th century.
- 3.1.36 The fort was partly modernised, with a number of new buildings, during the early 18th century and the officers barracks, a terrace of approximately 22 officers' houses within the fort, now seven houses and museum, were constructed in 1772, by the Board of Ordnance and altered during the early 19th century.
- 3.1.37 There were a number of late 19th and early 20th century alterations to the fort. During World War I anti-aircraft guns at the fort brought down a German airship. In the early stages of World War II the fort controlled the anti-aircraft defences of the Thames and Medway (North) Gun Zone. A small rectangular pillbox was added at this time. The elaborate outworks which surround the landward sides of the fort remain substantially unaltered.
- 3.1.38 The officers barracks are listed at Grade II\* (list entry number 1375568) and the fort is a scheduled monument (list entry number 1021092).
- 3.1.39 The former site of Tilbury market place was sited close to the ferry crossing and the Worlds End Inn to the south west of Tilbury Fort (HER number 48401 TQ65167575).
- 3.1.40 The first detailed map of the area is the Chapman and André map of Essex of 1777. This shows the settlements and (presumably enclosed) agricultural land on the gravel ridge. West Tilbury Marsh, East Tilbury Marsh and Mucking Marsh are shown on the lower lying alluvium running from east to west on the north bank of the river. The Tilbury marshes contain several structures including Milk House and Ferry House in the west and Hill house in the north.
- 3.1.41 The Ordnance Survey (OS) surveyors plan of 1805 shows that a large part of the marshland had been enclosed by that time. The fort at Coalhouse Point is marked as 'Hope pt Battery'.





- 3.1.42 The Old Rectory, located within the village of East Tilbury, some 2.3 km east of the built part of the application site is an early 19th century house of three storeys, in yellow stock brick, with a grey slate hipped roof. There is a central projection with a pediment over and a porch with columns. The building is listed at Grade II (List entry number 1111553, HER number 35318 MEX1010725).
- 3.1.43 The East Tilbury tithe map of 1838 and award of 1839 shows the village of Tilbury, with Coalhouse Fort to its south and with two conjoined rectangular enclosures, formed by drainage ditches at Coalhouse Point. Within this are four small rectangular buildings and a fenced or walled yard area. The area is marked 'Coal Wharf'.
- 3.1.44 By 1854, the London Tilbury and Southend Railway had been constructed. The railway line divides the application site. This provided access to the landing stage at Tilbury for passenger liners, which was replaced in 1924 by the present structure.
- 3.1.45 The first edition OS six inch to the mile map of 1873 shows a similar disposition to that of the tithe map of some 35 years previously, but omits to show Tilbury and Coalhouse Forts, presumably for security reasons.
- 3.1.46 The River Thames, providing easy access to London became heavily defended during the post medieval period and later.
- 3.1.47 Gravesend Blockhouse located some 2.1 km south west of the built part of the application site, on the south bank of the River Thames, in Gravesend, was built in 1539 as part of a chain of coastal defences in response to the threat of invasion. It was one of five artillery blockhouses built along this stretch of the River Thames to defend the approach to London and the dockyards at Woolwich and Deptford. The other blockhouses were located at Tilbury, Higham, Milton and East Tilbury. The Gravesend Blockhouse crossed its fire with Tilbury Blockhouse on the north bank of the river and guarded the ferry crossing between Gravesend and Tilbury.
- 3.1.48 Repairs were carried out to the blockhouse in 1588 and 1667. By 1665 quarters for the Duke of York as Lord High Admiral had been provided behind the blockhouse. This subsequently became the Ordnance Storekeepers Quarters and, much later, the Clarendon Royal Hotel. By the late 17th century the blockhouse had been converted into a storage magazine for gun powder, although the eastern arm of the gun lines was still armed. The gun lines were remodelled in the 1780s before being levelled in 1834. The blockhouse was partially demolished in 1844. Gravesend Blockhouse is a scheduled monument (list entry number 1005120).

- 3.1.49 New Tavern Fort, located some 2.1 km south west of the built part of the application site, on the south bank of the River Thames, in Gravesend, was built as a result of the 1778 survey of the defensive requirements of the Thames. The fort was built to provide cross fire with Tilbury Fort on the north side of the river. New Tavern Fort comprised a battery on two faces forming an angle towards the river with a strip of rampart joining it to a smaller, straight battery. The fort was constructed of unrevetted earth and was designed for an armament of heavy, smooth-bore cannon firing through embrasures. The initial construction took place between 1780 and c.1783, the armament of the fort being updated and increased at intervals throughout the 19th century.
- 3.1.50 By the end of the 19th century muzzle-loaded guns had become obsolete, and emphasis was placed on strengthening defences downstream from Gravesend. New Tavern Fort then lost some of its strategic importance. In 1905 concrete emplacements for two six-inch breech-loading guns were built, joined together by a walkway with a separate magazine underneath. Although the fort was garrisoned during World War I, its strategic importance continued to decline. In 1930 it was purchased by the Gravesend Corporation who laid it out as a pleasure garden for the public. During the Second World War the magazine built for the breech-loading guns was used for a time as an air raid shelter. Since then the site has again been cultivated as a public garden. The fort is a scheduled monument (list entry number 1013658).





- 3.1.51 Coalhouse Fort, located some 2.3 km east of the built part of the application site is an artillery fort on a site used for defence since the late 16th century and built on the site of a D-shaped artillery castle constructed in 1539. The first phase of the present fort was begun in 1799 and replaced in 1847-55 by a more complex structure Following recommendations made by the Royal Commission on the Defence of the UK in 1860 the fort of the 1850s was superseded by the present buildings between 1861-74. An 1895 return shows that 2 6-pounder quick-firing guns had been installed in an open battery on the river bank, upstream of the main work (HER number 1758 -MEX6355). In 1903 the fort was refortified with 5-6 feet of concrete placed on top of the 1860 battery roof. This structural strengthening was to support the weight of new guns. The fort was effectively obsolete during the First World War but was reoccupied during the invasion scare of 1940. By 1905, a small earthen battery with two searchlights had also been built about 300 yards to the south of the fort. This was later adapted to take three searchlights with generating equipment (HER number 1759 - MEX6359). Following the Second World War it was used as a store by Bata Shoes and then acquired by the district council (Historic England, 2015a). The fortification is a scheduled monument (list entry number 1013943). The fort is not shown on the OS edition of 1873, where the area is shown as fields, but is marked, at least in part on the OS six-inch edition of 1923.
- 3.1.52 Cliffe Fort is located some some 4 km east of the built part of the application site, on the south east side of the Thames in Kent. The Fort was constructed during the 1860s as part of the River Thames' coastal defence system. The fort is of stone and brick and contained a moat and earthworks on the seaward side. Part of the fort was rebuilt in 1885 as a Brennan Torpedo Station. The fort was occupied during the First World War and disarmed sometime after 1927. During Second World War the fort was used as the base for the Royal Navy Auxiliary Service. Partial remains of the battery survive at the fort in poor condition (Historic England, 2015b). The fort is a scheduled monument (List entry number 1003403).
- 3.1.53 East Tilbury battery, located on the east side of Princess Margaret Road, some 2.1 km east the built part of the application site was constructed between 1889 and1892 as a long-range emplacement to supplement Coalhouse Fort as part of the coastal defence system of the Thames. The battery was designed to blend into the landscape using a long sloping earth frontal area. The guns comprised two 10-inch and four 6-inch breech-loading weapons, mounted on 'disappearing carriages' which lay flat in deep emplacements for reloading and aiming but which were raised above the parapet for the few seconds of firing. The battery was decommissioned in 1907 and the guns removed (Historic England, 2015c). The fortification is a scheduled monument (list entry number 1013880). The battery is marked as disused on the OS six-inch edition of 1923.

- 3.1.54 Shornmead Fort is located some 3.2 km southeast of the built part of the application site, on the south side of the Thames in Kent. A small battery of four guns had first occupied the site in 1796, but this was obliterated by a polygonal fort in 1847. This was in turn replaced by the present fort in the 1860s. The fort was intended to cross its fire with Coalhouse and Cliffe Forts. The structure comprises an arc of granite-faced casemates with iron shields and an open battery at the up-river end, in front of which is a deep ditch and caponiers. A defensible barracks closed the rear. The fort was armed with fourteen guns, removed before the First World War. During the Second World War the fort was reopened as an emergency battery. The formidable riverside display of bull nosed granite gun embrasures remained but behind these there was considerable destruction during the 1950s by the army school of demolition. By the late 1970s (at the latest) the barracks were in a derelict state (Historic England, 2015d). Most of the structure has now been demolished, with only the casemates surviving (Newman 2012: 543). The fort is undesignated.
- 3.1.55 After the First World War passenger numbers through Tilbury increased significantly and it was realised that there were no central facilities for passengers. Given that liners were able to berth at this point in the River Thames, it was decided to make Tilbury the centre of passenger operations in London. A Bill was subsequently passed by Parliament to give powers to the Port of London Authority to build a passenger landing stage in 1922, and construction commenced two years later. The neo- Georgian structure includes the railway station and baggage hall, ticket office, and floating landing stage. The architect was Sir Edwin Cooper for the Port of London Authority.
- 3.1.56 By the late 1950s preference for air travel meant that travel by sea soon went into rapid decline. By the early 1980s British Rail ended through rail services, and in the 1990s the station was formally closed. The landing stage was re-opened in 1995 and was refurbished for leisure uses. Riverside Station, including floating landing stage is listed at Grade II\* (list entry number 1111547).
- 3.1.57 At East Tilbury, some 1.5 km north east of the built part of the application site, a purpose-built industrial village was developed between the 1930s and the 1960s for the British Bata Shoe Company Ltd as one of a number of satellites or colonies that the parent organisation, the Bata Shoe Company, based in Zlin, near what is now the eastern border of the Czech Republic, was constructing around the world in the 1930s. The East Tilbury Conservation area now covers the site and surroundings.





- 3.1.58 Both the layout and design of the pre-war factory, housing and community facilities were devised by the parent company and the settlement combines Garden City planning and Modernist architecture. Its character has subsequently been diluted by a large private residential development of the 1970s and piecemeal change to the company buildings (English Heritage (2007) East Tilbury, Thurrock, Essex, Historic Area Appraisal English Heritage Research Department Report Series 21/2007).
- 3.1.59 A number of defensive features of Second World War date have been recorded both within the application site and in its vicinity. The geophysical survey undertaken in connection with the Proposed Development has revealed a series of features largely confined to the southern part of the survey area. These anomalies are linear, rectilinear and curvilinear in form, and are interpreted as being related to anti glider ditches as well as associated infrastructure dating from the Second World War (WA 2017). They appear to relate to cropmarks recorded by the National Mapping Programme and provided by Essex HER.
- 3.1.60 Tilbury 'A' Power Station was constructed to the south of the application site between 1949 and 1957'. Tilbury 'B' was constructed adjacent to Tilbury 'A' during the 1960s. At this time the jetty was lengthened to the east and its original coal-handling cranes were replaced. By the 1970s works buildings and an electricity sub-station had been constructed and a number of overhead power lines crossed the wider area.
- 3.1.61 Tilbury 'A' was partly demolished in 1999, whilst Tilbury 'B' was converted to biomass in 2011. The jetty was enlarged in 2004. Following the closure of the Power Station, a programme of demolition has commenced across the remainder of 'A' and 'B' and relatively few structures now remain.

## **Designated Assets**

3.1.62 A number of designated assets have ben identified in the wider area. These are reported on below.

#### **Scheduled Monuments**

3.1.63 There is one scheduled monument located within 1 km of the built part of the application site. This is Earthworks near church, West Tilbury (list entry number 1002199).

- 3.1.64 There are six scheduled monuments located between 1 km and 3 km of the built part of the application site. These are Gravesend blockhouse (list entry number 1005120), Second World War anti-aircraft battery at Bowaters Farm (list entry number 1012185), New Tavern Fort, Gravesend, including Milton Chantry (list entry number 1013658), East Tilbury Battery (list entry number 1013880), Coalhouse Fort battery and artillery defences (list entry number 1013943), and Tilbury Fort (list entry number 1021092).
- 3.1.65 There are four scheduled monuments located between 3 km and 5 km of the built part of the application site. These are Dene holes in Hangman's Wood (list entry number 1002156), Cliffe Fort (list entry number 1003403), Aspdin's kiln (list entry number 1004227), and Causewayed enclosure and Anglo-Saxon cemetery 500m ENE of Heath Place (list entry number 1009286.

## **Listed Buildings**

- 3.1.66 There are five listed buildings located within 1 km of the built part of the application site. Of these one the Church of St James (list entry number 1111541) is listed at Grade II\* and the remainder at Grade II.
- 3.1.67 There are 125 listed buildings located between 1 km and 3 km of the built part of the application site. Of these two the Church of St Mary and the Church of St Katherine (list entry numbers 1111576 and 1337129 respectively) are listed at Grade I, 11are listed at Grade II\* and the remainder at Grade II.
- 3.1.68 There are 83 listed buildings located between 3 km and 5 km of the built part of the application site. Of these one, the Parish Church of St Botolph (list entry number 1054093) is listed at Grade I, seven are listed at Grade II\* and the remainder at Grade II.

#### **Conservation Areas**

- 3.1.69 There is one conservation area located within 1 km of the built part of the application site. This is West Tilbury.
- 3.1.70 There are seven conservation areas located between 1 km and 3 km of the built part of the application site. These are East Tilbury, located to the east of the application site, with Upper Windmill Street, Gravesend, King Street, Gravesend, Harmer Street, Gravesend, Milton Place, Gravesend, Riverside, Gravesend, and High Street and Queen Street, Gravesend each located on the south side of the River Thames, within the built development of Gravesend.





- 3.1.71 There are also seven conservation areas located between 3 km and 5 km of the built part of the application site. These are Queen's Farm, Shorne, The Hill, Northfleet, Windmill Hill, Gravesend, Overcliffe, Gravesend, Pelham Road and The Avenue, Gravesend, Darnley Road, Gravesend, and Lansdowne Square, Northfleet, Each of these conservation areas is located on the south side of the River Thames.
- 3.1.72 These conservation areas contain many of the listed buildings referred to above.





# 4. Conclusion and Summary

- 4.1.1 The proposal site does not contain any designated assets. There are no World Heritage Sites, Registered Battlefields or Registered Parks and Gardens located within the vicinity of the proposal site.
- 4.1.2 There are a number of scheduled monuments, listed buildings and conservation areas in the vicinity of the proposal site.
- 4.1.3 There are no recorded remains of prehistoric date within the proposal site, although records from the wider area and geological records indicate that there is some potential for deeply buried remains of palaeoenvironmental significance.
- 4.1.4 There are few sites or finds of medieval date in the vicinity of the proposal site. Later mapping indicates that the proposal site was probably marshland used for common grazing during the later medieval period. There is no evidence for medieval settlement activity within the proposal site.
- 4.1.5 There is no recorded evidence for activity, other than use as agricultural land over the proposal site until the Second World War when parts of it were used for defensive purposes. On this basis the potential for the survival of coherent below ground archaeological remains that may be affected by the proposed development is as follows:
  - Prehistoric medium
  - Roman medium
  - Medieval low
  - Post Medieval high.





## 5. References

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