



**Archaeological Desk-Based Assessment of the  
Former RAF Mast Site, Courtenay Road, Dunkirk, Kent**

September 2022

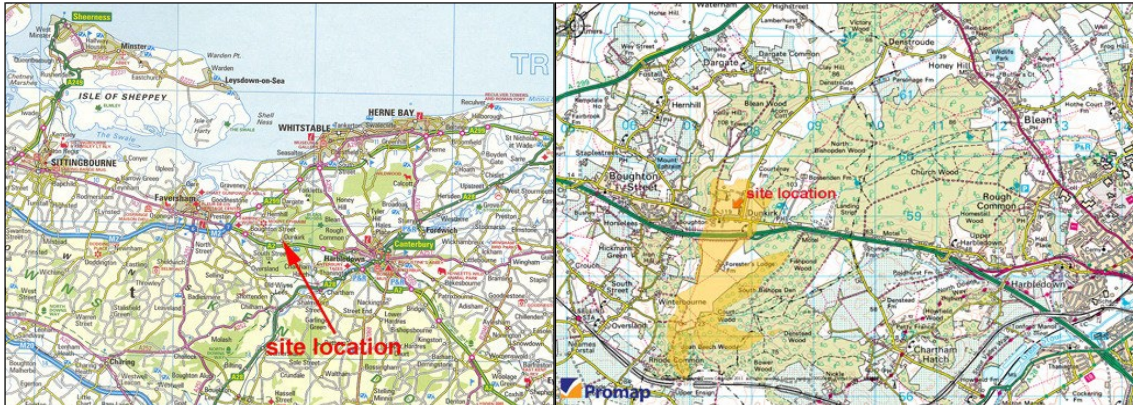
## NON-TECHNICAL SUMMARY

***This archaeological desk-based assessment has been carried out by West Sussex Archaeology Ltd on the Former RAF Mast Site, Courtenay Road, Dunkirk, Kent. The site lies adjacent to and partly within RAF Dunkirk, which is a Scheduled Monument (SM No. 34310) and contains the Grade II listed surviving transmitter mast.***

***The assessment indicates that the development site lies within a plot occupied from 1937-45 by a Chain Home Radar Station and subsequent early Cold War Rotor installation. However it does not appear to contain any remains associated with these uses, with the exception of one demolished possible pillbox visible on an aerial photograph. Subsequent military use of the site from 1959-2006 has left a number of buildings and trackways clustered around the surviving transmitter mast, only one of which, a brick-built toilet block, dates to before 1970.***

## BACKGROUND

### Site Location, topography & geology

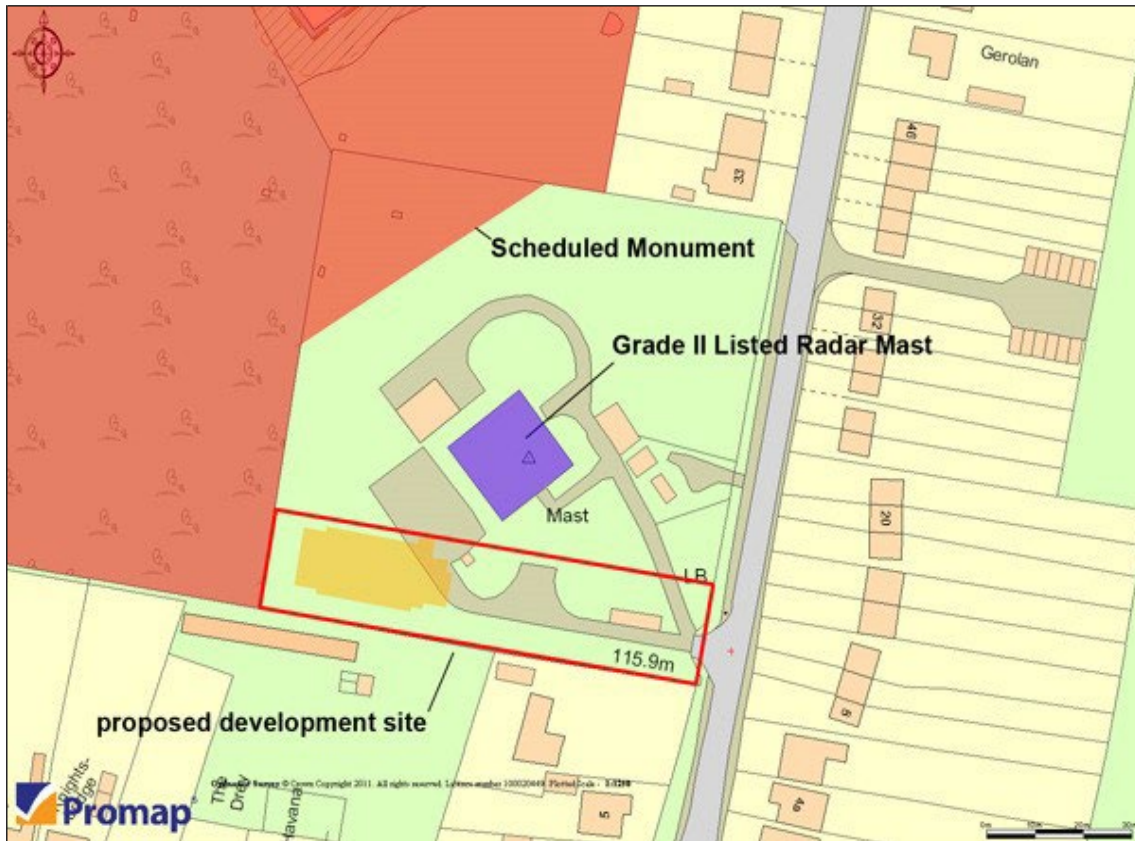


**Figure 1** Site location. The right hand image indicates land over 110m highlighted in yellow, with the outskirts of Canterbury visible to the east. © Crown copyright. All rights reserved. License number: AL100036068

1. The Former RAF Mast Site lies on the west side of Courtenay Road, in the village of Dunkirk, c.6km west of Canterbury, in Kent (Fig.1 & 2). It is located on an area of higher ground at 116m aOD, which would have extensive views to the north, east and west if it were not for the existing adjacent woodland. The site is centred at OS grid reference 60781 15905. The underlying geology of the site is London Clay.

### Planning background

1. The landowner is interested in developing the former RAF Dunkirk site at Courtenay Road, Dunkirk, Kent by providing new data centre facilities together with complementary office space. A planning application (no: SW/10/1128) was originally made to Swale Borough Council in 2010, but was refused, a second application was refused on appeal in 2013 (SW/11/1370) and a third was again refused on appeal in 2015 (SW/14/0393). A revised application was granted planning permission in 2018 (16/507586/FULL), but has subsequently lapsed, therefore a new permission is now being sought for an identical scheme.
2. NPPF clearly states that “In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.” (DCLG 2021, p.56 para.194).



**Figure 2** Plan of the Former RAF mast site, showing the development site (outlined in red, with the proposed new building shaded in yellow), SM and listed mast. © Crown copyright. All rights reserved. License number: AL100036068

3. While adjacent to both a Scheduled Monument (SM no: 34310) and a Grade II listed structure (no: 489803), the development site itself does not include either. However NPPF states that “Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification.” (DCLG 2021, p.57 para.200).
4. In a letter dated 6th October 2010, Simon Mason, Principal Archaeological Officer with Kent County Council, outlined how the impact of the proposals should be demonstrated. He recommended an assessment of the site in the form of a walkover survey and desk- based study, followed by a field evaluation. This report details the results of such an assessment. The walkover survey was carried out on the 14th September 2011 and the field evaluation on the 21st & 22nd September 2011, both by George Anelay of West Sussex Archaeology Ltd.

## **AIMS, OBJECTIVES & METHODOLOGY**

1. The purpose of this assessment is to first assess the likelihood of archaeological remains surviving within the site which could be damaged or destroyed by development, second to comment upon the significance of any remains and third to suggest possible mitigation methods to preserve and/or record these remains.

2. The following sources were consulted for the vicinity of the development site: Historic Environment Record (HER) held by Kent County Council, for a radius of 500m around the site; National Heritage List for England (NHLE), English Heritage's on-line database for heritage assets, for all references to Dunkirk; historic mapping of the site, although the closure for refurbishment of the Centre for Kentish Studies prevented the study of original documents: copies available on various websites were viewed and extracts purchased; aerial photographs; and Edward Hasted's "History and Topographical Survey of the County of Kent"

## RESULTS

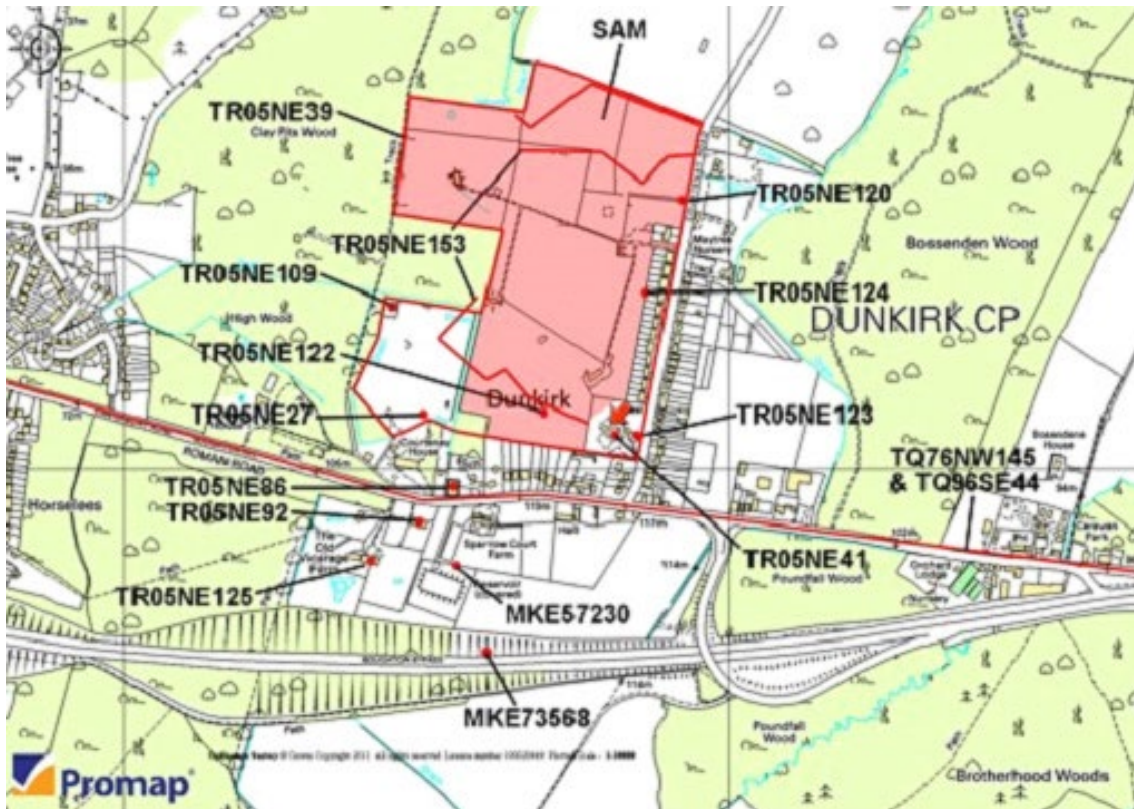
### Historic Environment Record

1. A total of 17 HER entries were found to lie within the 500m search zone around the development site. Seven of these relate to the Chain Home Radar Station established at Dunkirk in 1937; four are pillboxes, positioned on the eastern and southern sides to cover the roads approaching the site (TR05NE120, TR05NE122, TR05NE123 and TR05NE124); one is a Bofors gun emplacement on the western side to defend against aerial attack (TR05NE109); one is for the surviving radar mast, originally one of four transmitter masts, located immediately adjacent to the development site (TR05NE41); the last covers the Chain Home station as a whole (TR05NE39). Pillbox TR05NE123 is probably positioned incorrectly, since it is visible on the 1946 aerial photograph to the north of its location as recorded in the HER.
2. Three of the entries are listed buildings, all forming part of the 19th century hamlet of Dunkirk; one is for the school, built in 1844 (TR05NE86); the other two are for the church, built in 1840 (TR05NE92) and the associated vicarage, built in 1842 (TR05NE125).
3. HER no. TR05NE153 relate to marks visible on an aerial photograph of 1946, interpreted as possibly linked to an 18th or 19th century military site on the basis of their form (TR05NE153). These can be seen apparently underlying 19th century field boundaries and covering an area which includes much of the radar site, as well as parts of the woodland to the west.
4. Three HER entries cover the London to Dover Roman road known as Watling Street (TQ76NW145, TQ96SE44 and TR05NE27). This road follows the line of the old A2 as it passes c.75m to the south of the development site.
5. The remaining three items are for the findspots of artefacts; a neolithic flint axe was found during gardening in a house on the eastern side of Courtenay Road (MKE73562); and a post-medieval gold finger ring (MKE57230) and medieval lead token (MKE73568) were found by metal-detectorists in fields to the south of the old A2.

## WEST SUSSEX ARCHÆOLOGY

HER No.	Grid Ref.	Type	Date	Status
TQ76NW145 TQ96SE44 TR05NE27	TQ80226123	Roman Road	Roman	
TR05NE39	TR07685933	RadarStation	1937-59	SAM
TR05NE41	TR07815905	Radar Tower	1938	Listed
TR05NE109	TR07445927	Bofors Tower	1939-45	Listed
TR05NE86	TR07535897	School	1844+	Listed
TR05NE125	TR07415884	Vicarage	1842+	Listed
TR05NE92	TR07485890	Church	1840	Listed
TR05NE120	TR07925944	Pillbox	1939-45	SAM
TR05NE122	TR07685908	Pillbox	1939-45	SAM
TR05NE123	TR07845906	Pillbox	1939-45	
TR05NE124	TR07855929	Pillbox	1939-45	SAM
TR05NE153	TR07735932	?Military Site	C18th – C19th	
MKE57230	TR07555885	Finger Ring	c.1700	
MKE73562	TR07905910	Flint Axe	Neolithic	
MKE73568	TR07605870	Lead Token	Medieval	

**Figure 3** Table of KCC HER entries within a 500m radius of the development site



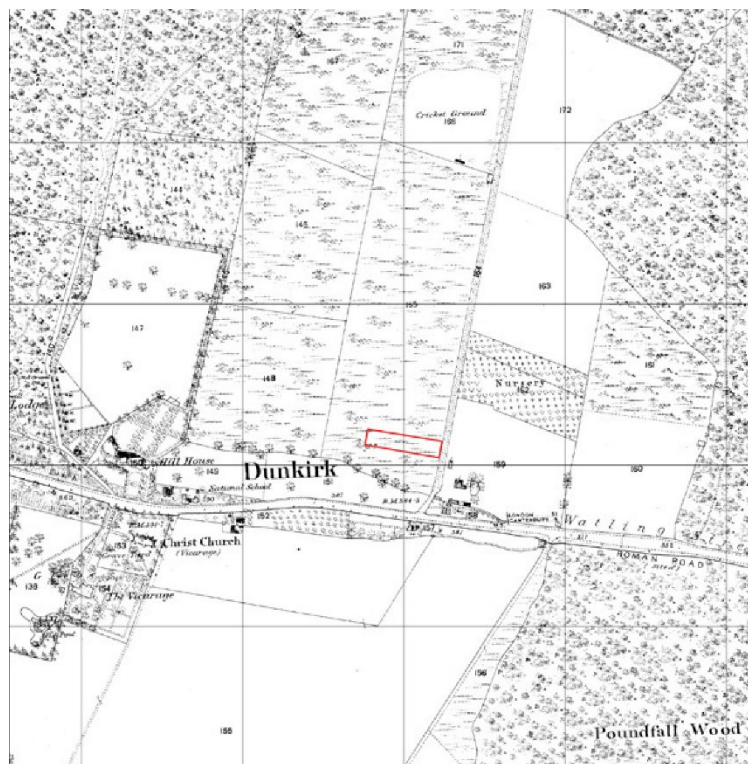
**Figure 4** Map indicating locations of HER monuments and finds. © Crown copyright. All rights reserved. License number: AL100036068

## Historic Mapping



**Figure 5** Detail from “A Map of The Hundred of Boughton Blean, the Liberty of Seasalter, and the Liberty of the Ville of Dunkirk, ancientsly the King's Forest of Blean” c.1800 from Hasted 1800)

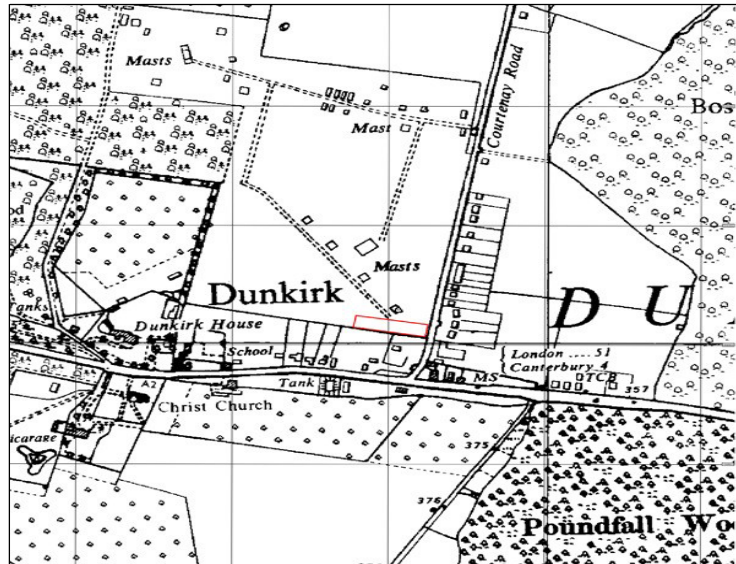
1. The earliest historic map relating to the site that was available for this assessment dates to c.1800 (see Figure 5). This indicates that at this time the hamlet of Dunkirk did not exist, the whole area of the site being covered by woodland. However the creation of the hamlet had clearly taken place by 1870, since it is visible on the Ordnance Survey 1st edition mapping. In addition a wide area to the north of the hamlet had also been cleared of trees and laid out as fields, some evidently rough pasture, including a cricket ground and nursery. The development site lies within the south- eastern of these pasture fields.



**Figure 6** Ordnance Survey 1:2500 mapping of 1871. The development site is outlined in red.  
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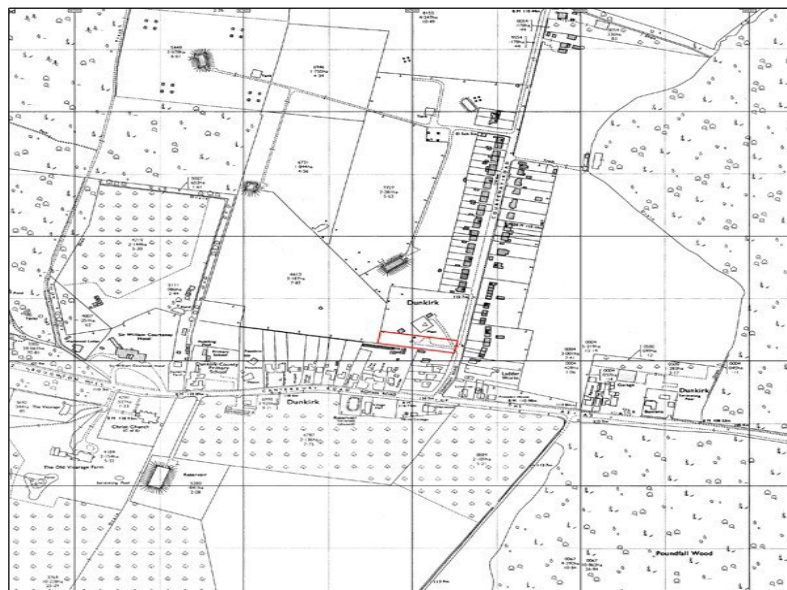
## WEST SUSSEX ARCHÆOLOGY

2. There is no significant change evident in the mapping until the post-war 1961 edition, which shows the Chain Home radar station immediately prior to its demolition. Within the immediate vicinity of the development site (outlined in red) sits the last in the line of transmitter masts, together with a trackway linking it with the others to the north-west. No other structures are shown.



**Figure 7** Ordnance Survey 1:10,560 mapping of 1961. The development site is outlined in red.  
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3. The 1970 Ordnance Survey edition clearly demonstrates the next phase in the development of the radar site; the masts have now all been removed bar one, with only their concrete bases remaining and the south-eastern corner of the site has been fenced off, surrounding the one surviving mast. This smaller communications site is now served by two trackways entering from the east, off Courtenay Road, and four new ancillary structures have been built.



**Figure 8** Ordnance Survey 1:2500 mapping of 1970. The development site is outlined in red.  
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## WEST SUSSEX ARCHÆOLOGY

4. Later Ordnance Survey mapping, shows insufficient detail of the site to be certain of subsequent developments. The 1973 edition shows only the largest of the four structures, but this is clearly not accurate since one of those previously shown is still extant. The latest edition (see Fig. 2) indicates that of the four structures only the southern, which is a toilet block, has survived.

### Aerial Photographs

1. Only one aerial photograph was examined as part of this assessment; this vertical was taken in 1946 and shows the Chain Home radar station as it was immediately following the end of the war. Within the immediate vicinity of the development site can be seen the last in the line of transmitter masts, together with the trackway running to the north-west, both as shown on the 1961 Ordnance Survey mapping. In addition to these there are two further structures visible; one of these lies approximately 15m to the north of the development site and the other sits within it to the south-east of the mast. It is possible that both these are pill boxes covering the site from the south-east. The eastern boundary of the radar station seems to be composed of two lines of bank and/or fencing.



**Figure 9** Detail from the 1946 aerial photograph of RAF Dunkirk. The development site is outlined in red. Photograph courtesy of KCC HER photo 4033.

## WEST SUSSEX ARCHÆOLOGY

2. The aerial photograph also shows the marks of what appear to be buried ditch lines belonging to a feature pre-dating the radar station extending in several lines to the south-west and north of the radar installations. These ditches seem to be running under the field boundaries which defined the limits of the WWII site and as such are unlikely to be linked to its defences, but this is not certain. Their angular shape has led to the suggestion in the HER record that they may be of 18th – 19th century military origin. While they are not visible on the aerial photograph as extending into the development site, it is a possibility.

### Documentary Sources

1. A history of the Dunkirk area is provided in Hasted's "History and Topographical Survey of the County of Kent" (Hasted 1800). He states that it used to form part of the King's ancient forest of Blean, but successive royal gifts eventually led to its residing exclusively in private hands, having lost the legal status of "forest" lands. Subsequent to this he describes how "several houses having been built within the bounds of it [that is Blean forest], many especially on the south side of the common, at the bottom of Boughton Hill, which were inhabited by low persons of suspicious characters, who sheltered themselves there, this being a place exempt from the jurisdiction of either hundred or parish, as in a free port, which receives all who enter it without distinction, the whole district from hence gained the name of Dunkirk. But the neighbouring parishes complaining of the burdens they were continually subject to, occasioned by the casual support of the poor resorting hither, and other inconveniences arising from it, procured it, though not without great opposition from the inhabitants, to be made a ville, by the name of the ville of the hundred of Westgate, *alias* Dunkirk, and the jurisdiction over it was annexed to the upper division of justices acting for the lath of Scray." This description of lawlessness provides the background to the subsequent development of Dunkirk. In 1838 it became the scene for the Battle of Bossendon Wood, when a "Sir" William Courtenay led an abortive rebellion against the government, which was swiftly put down. It was following this event that the hamlet and parish of Dunkirk were created, with the school, church and vicarage all constructed in the 1840's, ostensibly to bring order and local government to the area.
2. The National Heritage List for England (NHLE) includes six entries in the vicinity of the development site. Three are listed building descriptions for the school, church and vicarage described above (p.6). The remaining three relate to the Chain Home radar site and provide detailed descriptions of its history and significance: List entry Number 1088075 (BOFORS TOWER, APPROX. 500M NNW OF CHRIST CHURCH); List entry Number 1031910 (DUNKIRK RADAR TOWER); and List entry Number 1020388 (A World War II Chain Home Radar station at Dunkirk, 200m north east of Christ Church).
3. Concerning the history of the station these entries state, in summary, that the radar station was established in 1936-7 as one of five radar

## WEST SUSSEX ARCHÆOLOGY

stations forming the Thames Estuary and South-East Approaches (to London) section of the Chain Home network. This network was constructed in the build-up to World War II to provide an early warning system of German air attacks against Britain. The Dunkirk station was composed of four transmitter and five receiver masts, together with associated buildings and defences. Following the end of WWII the station briefly formed part of the new Rotor radar system set up at the beginning of the Cold War, but which was closed in 1958. In the following year the masts were all demolished, save for that in the far south-east corner which continued to be used by the MoD, and from the 1980's by the US military. In 2006 it was sold and passed into civilian ownership.

4. The remains of this station are a Scheduled Ancient Monument (SAM; no: 34310), with the exception of the area used by the MoD after 1958 which, although it contains the only surviving example of one of the transmitter masts, is excluded from the scheduling due to its ongoing use for communications. The mast itself is Grade II listed and has suffered from some alterations, with the horizontal elements of the mast, originally positioned part way up and at its head, removed.
  
5. The National Heritage List for England (NHLE) contains the following statement concerning the significance of the surviving remains of the radar station: "A national survey of radar stations has identified some 242 sites at 200 separate locations - some quite extensive - used for radar reporting and control functions during World War II. Forty-seven of these are Chain Home sites, about half of which survive in some form, seventeen of which are complete or near complete. Chain Home sites with significant surviving remains representing the site's primary function are considered to be of national importance. Chain Home towers are rare nationally and all surviving examples are of national importance. The World War II Chain Home Radar station at Dunkirk...is particularly important in terms of the development and early implementation of radar, representing its first use beyond the experimental phase. The station survives well and is one of only seven Chain Home sites nationally which is virtually complete, with its ground structures and layout still visible and its interior untouched by modern development. It therefore provides an understanding of the original form and function of Chain Home stations and as such, it is an important historic complex, serving as a physical record of similar stations which have been demolished elsewhere. Historically, the importance of the site is further enhanced by the significant part it played in the defence of Britain against aerial bombardment throughout World War II, and its continued significance during the early Cold War period. Surviving Chain Home transmitter towers are extremely rare nationally and Dunkirk is one of only five sites to retain any of their original towers. The survival of the tower greatly amplifies the significance of the site. The transmitter tower is the best-preserved *in situ* example in England after the listed examples at Bawdsey (Suffolk) and Stenigot (Lincolnshire), and relates to one of the best-preserved and most historically important radar sites in England.

## Archaeological Investigations

1. No archaeological investigations have taken place within the immediate vicinity of the development site, with the exception of works relating to the designation of the chain home radar station described above (p.11), and the field evaluation carried out as part of this project (West Sussex Archaeology 2011). The results from this indicated that there are unlikely to be any archaeological remains within the area of the proposed development pre-dating the WWII radar station. The only elements of the radar station that may lie within the development site are any surviving remains of the possible pill box visible on the 1946 aerial photograph. For the period after the decommissioning of the radar station from 1959-1970 a brick-built toilet block was all that has been identified, which is to be retained within the development. All further archaeological remains dated to the period 1970-2006 (ibid., p.2).

## Field Reconnaissance

1. A walkover survey of the site was carried out by the author on the 14th September 2011. The results confirmed the evidence from historic and current mapping, in that the only structure to survive from the WWII and early cold war radar site is the mast itself and the concrete bases of the adjacent demolished mast. There was no visible trace of the two possible pillboxes, trackway or eastern boundaries seen on the 1946 aerial photograph (see p. 11-2).
2. Of the structures visible on the 1970 Ordnance survey map (see fig.8), only the southern building still survives. This was shown to be a small brick built toilet block containing a sink and WC (see fig. 10). No trace was found of the other three structures, nor of the trackways, which have been extended and overlain by more recent tarmac and concrete surfaces.



**Figure 10** The toilet block to the south of the mast, looking north-west.

## SYNTHESIS

### Prehistoric, Roman & Medieval

1. The only evidence for prehistoric activity in the vicinity of the development site is the Neolithic flint axe found in the garden of a house on the eastern side of Courtenay Road (HER no.MKE73562).
2. The development site lies close to the London to Dover Roman road, which runs past the site c.75m to the south. It is possible that archaeological remains associated with the road exist within the development site, for example road-side settlement or trackways to more distant occupation sites.
3. Little is known of the medieval history of the development site. It is believed to have been within the bounds of the Forest of Blean and later historic mapping shows it as being covered in woodland; however medieval “forests” were by no means all covered in trees and the presence of the road to the south may have attracted nearby roadside settlement.

### Post-medieval

1. The earliest historic mapping, which dates to the very close of the post-medieval period, indicates that the area then was wooded, with the nearest dwellings lying some distance to the east and west along Watling Street. This may not always have been the case and it is possible that settlement came and went along the roadside over the course of this period.
2. The marks visible on the 1946 aerial photograph may relate to the use of the area by the military at a period before WWII. The shape of the marks would be consistent with defensive technology dating from the 16<sup>th</sup> to the 19<sup>th</sup> centuries. The location of the site upon the last hill eastwards from London before reaching Canterbury, overlooking as it does the old A2, suggests that if the site were military, it was designed to protect against movement from the west. Perhaps the most likely context for this would be during the Civil War, when the city of Canterbury was twice in Royalist hands, before being surrendered to troops coming from London. This may also explain the somewhat confusing appearance of the ditch lines, which seem to indicate more than one phase of construction, since such a defensive work would almost certainly be slighted once a friendly link between Canterbury and the capital was re-established.

## Modern

1. The modern history of the site is dominated by the construction of the Chain Home radar station in the build-up to WWII. As has been set out above (p.10-1) this station remained in use throughout the war and then continued in service as a Rotor station during the early Cold War period, until its de-commissioning in 1958. In 1959 all but one of the transmitter and receiver masts were demolished, the remaining example being enclosed within a much smaller site fronting onto Courtenay Road. It continued in use by the MoD as a communications mast until the 1980's when it was leased to the US military, again for communications purposes. Finally in 2006 it passed into civilian ownership.
2. The surviving structures within the smaller mast site all post-date 1970, with the exception of the mast itself, the concrete bases of a second mast and a small brick toilet block. It is probable that the current buildings on the site, with these exceptions, relate to the US military's occupation of the site from the 1980's until 2006, since it seems reasonable to assume that a change of use required a new set of structures.

## STATEMENT OF ARCHAEOLOGICAL POTENTIAL

1. The development site has a **low** potential for archaeological deposits prior to the post-medieval period, although there is a possibility that occupation associated with the road to the south dating to the Roman or medieval period may extend into the area.
2. The development site likewise has a **low** potential for archaeological deposits dating to the post-medieval period, although the marks visible on the 1946 aerial photograph to the north-west are likely to relate to this period.
3. The development site has a **medium** potential for archaeological deposits relating to the 20<sup>th</sup> century military use of the site. While the remains of the radar station are clearly of national importance, the area encompassed by the development site would appear not to encroach upon any of its remains, save for one possible pill box lying to the south-east of the mast. The mast itself and the trackway associated with it lie just outside the area to be developed. The only other structures pre-dating 1970 which lie within the site are a brick built toilet block dating to the period 1959-1970 and the two trackways of the same date. The toilet block is due to be retained within the development, without alteration, save for essential maintenance. The two trackways are now covered by modern concrete re-surfacing.
4. In relation to the setting of the monument, the post-1959 development of the site has separated the area around the surviving transmitter mast from the remainder of the radar station. The inter-visibility between the

## WEST SUSSEX ARCHÆOLOGY

two parts of the station is now greatly reduced by the presence of a fence-line backed by mature scrub. Due to this the proposed development would have no impact upon the setting of those parts of the station lying beyond this boundary. This fence-line has resulted in the surviving mast, together with half of the concrete bases of a second mast, becoming a self-contained unit now separated, at least visually, from the rest. Within this unit the new development has been sited in the south-west corner, against the boundary of the site. This leaves a clear space between the mast and any new building.

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