ARCHAEOLOGICAL SURVEY REPORT

Gorse Motors Ltd., Gorse Industrial Estate, Barnham BNH 061

A REPORT ON THE ARCHAEOLOGICAL SURVEY, 2005

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Acknowledgements

This project was funded by Keith Eldred and the archaeological work specified by Wayne Cocroft (English Heritage). The fieldwork was carried out by John Duffy and James Rolfe from Suffolk County Council Archaeological Service, Field Team. The project was managed by David Gill, who also provided advice during the production of the report.

Summary

A survey was conducted ahead of a proposed development at Gorse Motors Ltd., Gorse Industrial Estate, Barnham. This area was formerly an atomic bomb store and servicing facility known as RAF Barnham. The site is one of only two of these purpose built structures and as such is a Scheduled Ancient Monument (Number 30608). The survey was of a concrete surface, probably forming the base on which a fuel tank sat, between the two standby generator buildings for the base.

SMR information

Planning application no.	Pre-planning
Date of fieldwork:	9 March 2005
Grid Reference:	TL 8499 7961
Funding body:	Keith Eldred
Oasis reference.	suffolkc1-7303

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Introduction

A survey was undertaken to record a concrete surface, ahead of a proposed development, to the south of Gorse Motors Ltd. on the Gorse Industrial Estate. The project brief was prepared by Wayne Cocroft (English Heritage). The work was undertaken as a requirement of Scheduled Ancient Monument consent in advance of a planning application.

The site is located within the area of RAF Barnham which was formerly an atomic bomb store and servicing facility and is now the Gorse Industrial Estate. This site was one of two built in the early 1950s to coincide with the RAF's first operational atomic weapon 'Blue Danube' (Cocroft recording brief – Appendix 1). The area of RAF Barnham is a Scheduled Ancient Monument (Number 30608).

The concrete surface is located between two standby generator buildings which would provide power for the base if the National Grid supply failed. The concrete surface is thought to possibly form the base for a fuel tank between the two generator buildings.

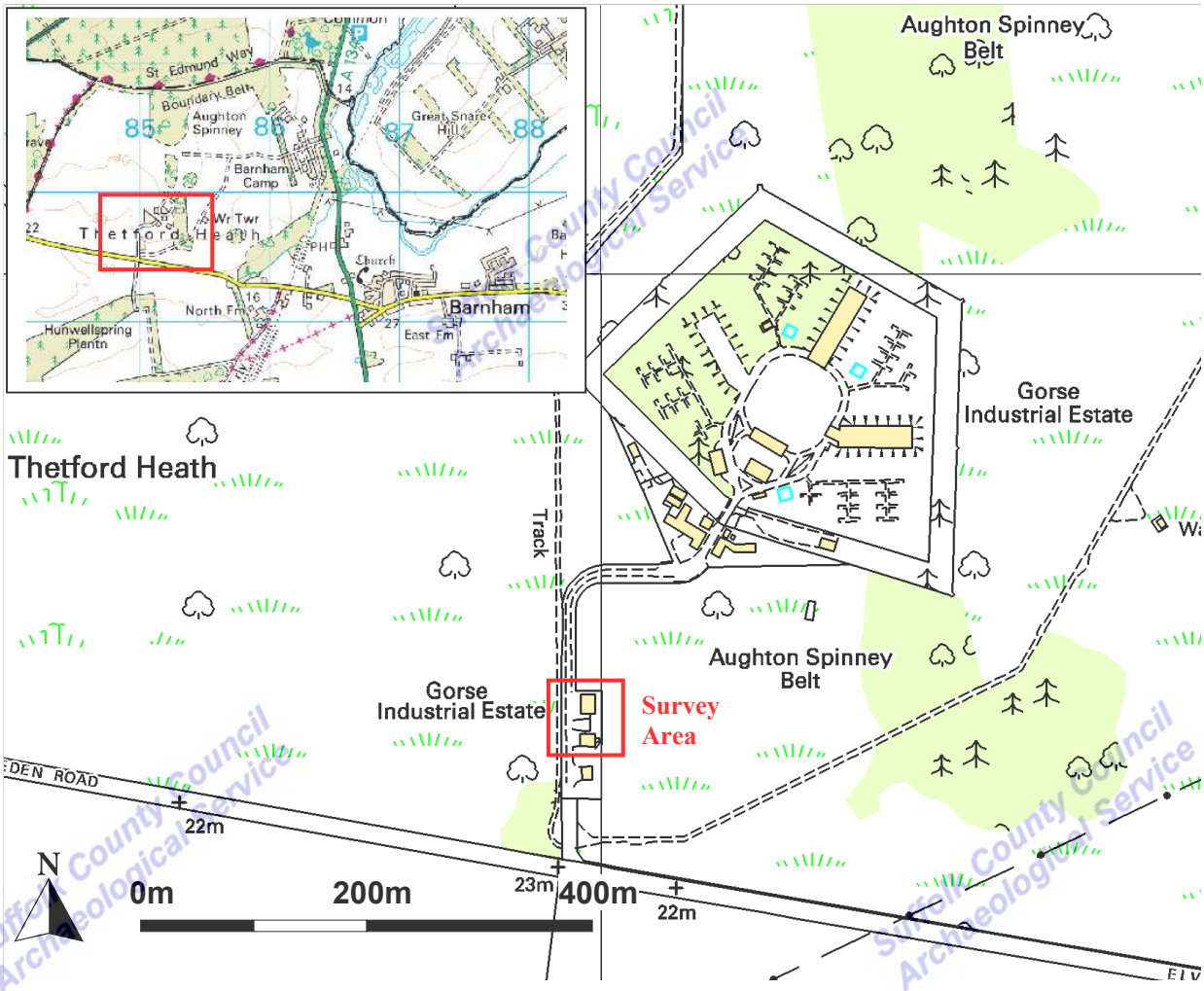

Figure 1 Survey location

Methodology

A photographic record was made of the concrete surface using a digital camera and a medium format camera with monochrome film. Photographs were also taken to record the internal and external elevations of the south wall of the northern generator building. Internal and external photographs were also taken of the east wall and internal photographs were taken of the west wall.

The survey was conducted using a Total Station Theodolite (TST). The plan was then produced, using LisCAD and MapInfo, from the surveyed data.

Results

Concrete Surface (Figure 2)

The concrete surface measures 11.6m long, 8.2m wide and 0.15m deep. It is located 4m to the south of the northern building and 2.5m north of the southern building. The surface has been cast in two halves with the division being along the long axis. The surface is then laid on top of a level platform built into the natural slope between the two generator buildings. The area to the north and east of the platform is built up to form a level surface outside the concrete surface. It is unclear how much of this levelling took place as part of the construction of the concrete surface and how much is more recent work to produce a level yard outside the existing building (Figures 3 to 6).

The platform on which the concrete surface sits is faced with large concrete blocks, measuring 0.45m by 0.23m, under a facing of bricks, measuring 0.22m long, 0.11m wide and 0.07m deep (Figure 7 and 8). The large concrete blocks appear to form a retaining wall for the platform. The facing was only visible along the southern edge and the southern half of the western edge of the platform. This brick facing was only one brick wide and appeared to continue above the level of the concrete surface. As the outer bricks continued above the concrete an inner face of bricks were laid on the outer edge of the concrete surface. This would have created a wall, two bricks wide, around almost the entire surface. This wall has now been truncated to the level of the concrete to form a level space outside the building.

The surface contained several internal features, the most notable of which were a series of five parallel slots running across almost the entire width of the surface. The best preserved of these was the most northerly one (Figures 9 and 10). The slots, measuring 7.5m by 0.4m, appear to have originally contained further concrete possibly forming the supports for a fuel tank.

The north-west corner of the surface is cut away and is the only area of the surface without any brick walling (Figure 11). This may well have given access to the walled off area and to the fuel tank itself. Another internal feature was a rectangular opening near the northern edge of the surface (Figure 12). The opening measured 0.9m by 0.6m and may well have been to allow for outlet pipes for the fuel tank.

During the survey the extent of damage to the concrete surface was also recorded. There is extensive damage across the entire surface, which appears to be from general usage. However, there is also considerable damage along the eastern edge of the surface where over half of the eastern edge has been destroyed (Figure 13).

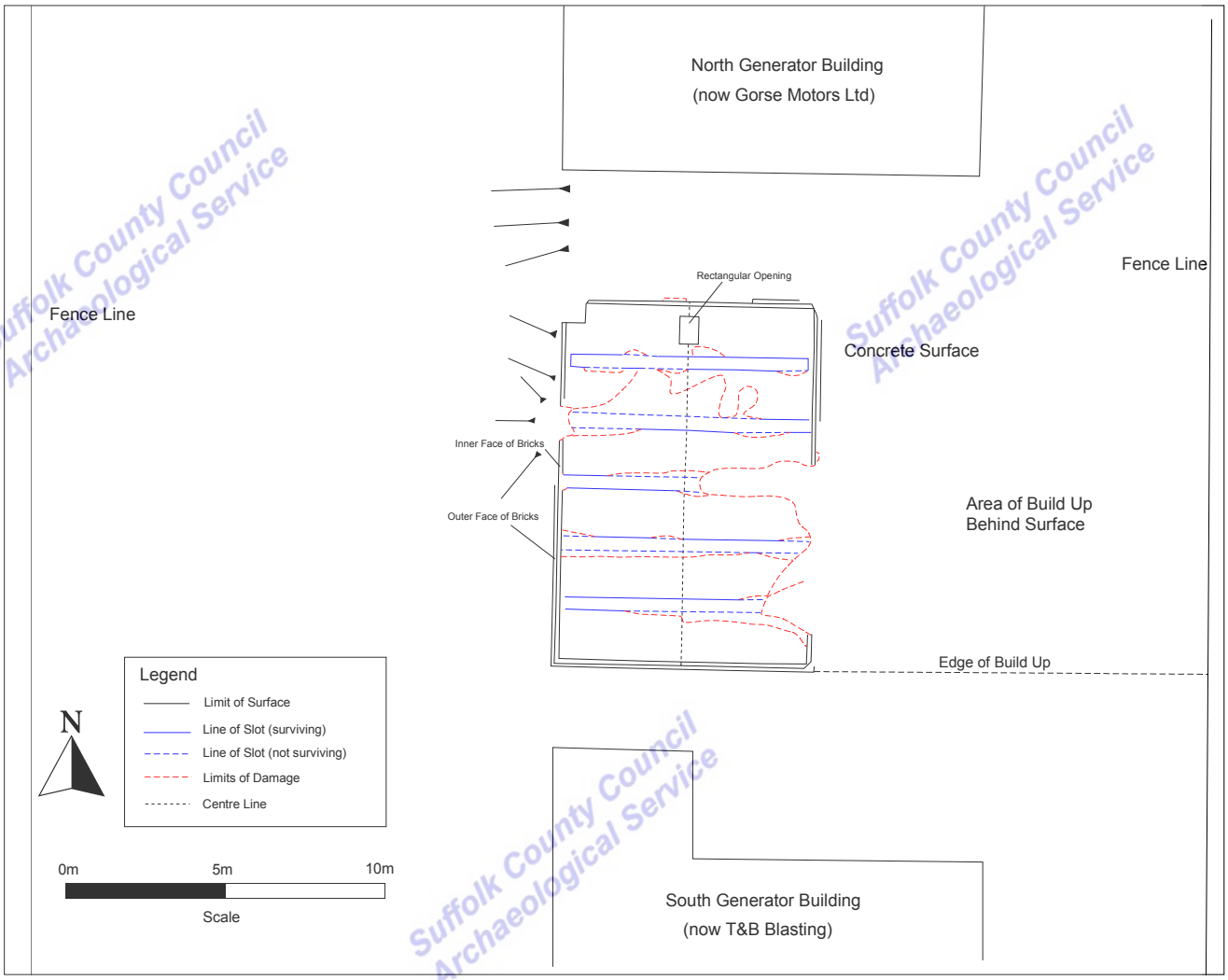

Figure 2 Plan of survey area

Figure 3 General view looking south-east

Figure 4 General view looking north-west

Figure 5 Surface looking north

Figure 6 Surface looking south

Figure 7 South-west corner of platform

Figure 8 South-east corner of platform

Figure 9 Slot detail west end

Figure 10 Slot detail east end

Figure 11 North-west corner detail

Figure 12 Rectangular opening detail

Figure 13 South-east corner damage

Building Elevations

Internal

The internal elevation of the south wall of the north building (now Gorse Motors Ltd) is made up of four bays (Figure 14). Each bay is identical with a single window per bay (Figure 15). Within the proposed development a doorway will be inserted through one of these bays to connect to a new building to the south.

Record photographs were also made of the internal face of the east wall (Figure 16). The door to the new building may not placed in the south wall, if so, then it may be inserted through the east wall. The east wall, at the time of the survey, is covered in the machinery of the existing garage and a full photographic record could not be completed.

A photographic record was also made of the internal face of the west wall (Figure 17). This record was made to indicate the large cracks in the building fabric above the main garage entrance. This appears to have been caused by the insertion of steel beams extending from the east wall to the west wall.

External

A record of the external face of the south elevation on the northern building was also made (Figure 18). However, the elevation is fully rendered and the only identifiable features were the windows. On the south-west corner of the building some of the render had fallen off and the underlying brick work was visible (Figure 19). The brickwork was too damaged to allow detailed recording.

A record was also made of the external face of the east wall (Figure 20). The remains of an extension to the building are clearly visible though the extent is unknown. However, the proximity of the fence line gives at least an indication of its maximum size.

Figure 14 General shot of south elevation (internal)

Figure 15 Close up of bay (internal)

Figure 16 East wall (internal)

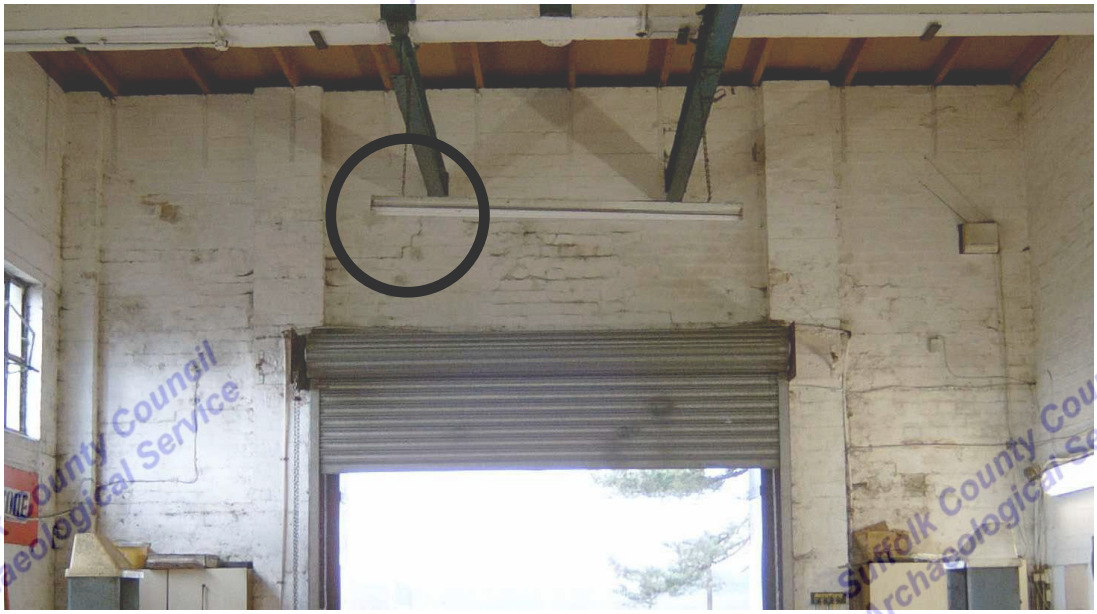

Figure 17 West wall (internal)
(area of cracking highlighted by the circle)

Figure 18 South elevation (external)

Figure 19 South elevation detail (external)

Figure 20 East elevation (external)

Discussion

The results of the survey show the extent and condition of the concrete surface. The results also indicate that the concrete surface, and the platform it was built on, was the structure probably supporting a fuel tank. The location between the two former generator buildings is another strong argument for the presence of a fuel tank.

The proposed fuel tank appears to have rested on five concrete supports built into the surviving concrete base. This concrete base also had an opening, probably for an outlet pipe. The fuel tank and the concrete surface it sat on were surrounded by a brick wall. The original height of the wall is unknown though it seems likely that this was an enclosing low wall rather than a full structure, possibly designed to contain fuel spillages (Figure 21).

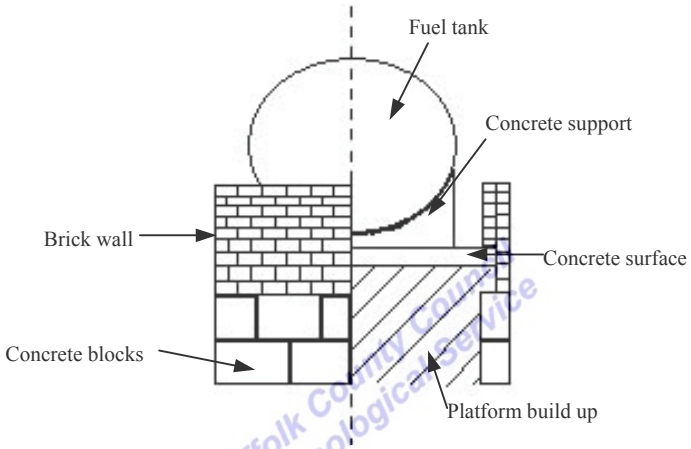

Figure 21 Reconstruction sketch of fuel tank and concrete surface

The concrete surface sat on a platform surrounded by a retaining wall of large concrete blocks (Figure 21). The exact nature of the platform could not be determined during this survey. The platform may be built by terracing the natural slope or it may be formed using a build-up of dumped material or a combination of both. There is also the possibility that the platform was free-standing as the extent of the concrete block retaining wall has not been determined.

Little is known about how the concrete surface relates to the surrounding buildings. The surface is level with the northern building but is substantially higher than the southern building. If this was the site of a fuel tank and both the north and south buildings housed generators then it is unclear how the fuel was fed from the tank to the generator buildings. It is possible, as was mentioned earlier, that the rectangular opening was for an outlet pipe. If this is the case it may have lead to both generators or only the north one. Further work would be necessary to understand the relationship and the workings of the three structures and any further structures in the vicinity need to be identified.

Recommendations

Although the survey of the concrete surface has provided a detailed record of both the surface and the buildings around it, there is still more to understand about the remains on this site. This includes the concrete surface and the platform on which it is laid, as well as the build-up outside the platform. Any work affecting the fabric of the standing building will also need recording.

Concrete surface and platform

At present it is unclear exactly how the platform was constructed and what was happening around it. Further work needs to be done to understand the make up of the ground around the platform and identifying how much is part of an original surface and how much is more recent build-up. A small trench along the eastern edge of the concrete surface should help determine the nature of the external build-up and may add to our understanding of the construction of the platform.

Further work on the concrete surface and its platform would also be beneficial. More could be understood about how the site functioned and was constructed. Excavation within the rectangular opening and around the cut away corner at the northern edge of the surface would help in the understanding how the site functioned. Furthermore if pipes exist in this area this may have implications on the development and the identification and recording of these would minimise their impact on the new building.

Existing building

Any work directly affecting the standing building to the north of the platform would require monitoring. The insertion of a doorway will destroy part of the fabric of the building and should be recorded.

If, as briefly mentioned earlier, the link to the new building goes through the east wall instead of the south wall then this will impact not only on the fabric of the standing building but also the now largely demolished extension. If this became the preferred option then work should be undertaken to identify and record any remains on the eastern side of the building.

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Division alone. The need for further work will be determined by the Local Planning Authority and its archaeological advisors when a planning application is registered. Suffolk County Council's archaeological contracting service cannot accept responsibility for inconvenience caused to clients should the Planning Authority take a different view to that expressed in the report.

Appendix 1

ENGLISH HERITAGE

Recording brief

Gorse Industrial Estate, Eleveden Road, Barnham, Suffolk, IP24 2PH

Scheduled Monument National Number:- 30608

Concrete floor surface – between the two former stand-by generator buildings

8 February 2005

Introduction

The former atomic bomb store and servicing facility at RAF Barnham (now the Gorse Industrial Estate) was one of two purpose-built facilities constructed in the early 1950s to coincide with the deployment of the RAF's first operational atomic weapon 'Blue Danube'. The whole site within, and including, its original boundary fence is a Scheduled Monument.

This recording brief was produced in response to a proposal to partly or wholly remove a concrete floor surface between the two standby generator buildings at the entrance to the site. If the supply of electricity from the National Grid was lost, the standby generators formed an essential part of the operation of the site to provide it with electrical power.

Condition

The feature under threat comprises a concrete floor slab surrounded by the footings of a brick wall. It is unclear if this feature represents a demolished building or the remains of a low brick bund wall around a fuel storage facility.

Background to Recording Brief

In February 2005, English Heritage was informed that the garage (which currently occupies the northern most of the former generator buildings) wished to erect a semi-temporary structure to its south, and to join it to the existing building by a door inserted in the southern elevation of the generator building. It was considered that this work would have the beneficial effect of sustaining the existing building in economic use and would have minimal effect on the interpretation of the site. The ground works for the semi-temporary structure will, however, damage or partly remove a concrete floor; this brief is designed to ensure that an adequate record is produced of this feature prior to any ground works ground works taking place.

Appendix 1

Recording brief

The main aim of the report is to provide a concise record of the concrete floor.

Prior to recording any loose soil or debris should be removed from the floor surface.

Suggested report contents:-

1 A short written description of the concrete floor.

2 A metrically accurate plan of the concrete floor drawn at a scale sufficiently large to show the scars and other significant features on its surface. This will also show the floor slab in relation to the generator building to the north and the boundary fence.

3 Photographs of the concrete footing and images to illustrate its site context.

4 General exterior photograph of the northern most former generator building and details photographs of its southern elevation (externally and internally)

5 Copies of the report will be deposited with the English Heritage, National Monuments Record, Swindon and Suffolk County Council Historic Environment Record.

Sources

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