

**An Archaeological Evaluation and Watching Brief  
at the Shoreham Adur Tidal Walls, Shoreham**

**NGR: 520610,105580 (centre point of Reach W7)  
(TQ20610,05580) (centre point of Reach W7)**

**ASE Project No: 6833  
Site Code: ATW 13**

**ASE Report No: 2015162**



**By Phillippa Stephenson  
With contributions by  
Justin Russell and Luke Barber  
Illustrations by Justin Russell**

**May 2015**


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<b>Reviewed and approved by:</b>	Jim Stevenson	Project Manager	
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**Archaeology South-East  
Units 1 & 2  
2 Chapel Place  
Portslade  
East Sussex  
BN41 1DR**

**Tel: 01273 426830  
Fax: 01273 420866  
Email: [fau@ucl.ac.uk](mailto:fau@ucl.ac.uk)**

**Abstract**

*An archaeological evaluation and watching brief carried out by Archaeology South-East at Shoreham Adur Tidal Walls has successfully identified approximately seven Second World War structures situated on eastern periphery of Shoreham Airfield (also known as Brighton City Airport) and along the heavily defended Shoreham section of the Adur Stop Line on the west bank of the Adur estuary, fortified in 1940.*

*The archaeological evaluation demonstrated that pre-fabricated hut bases and an area of hard-standing were strung out along the eastern perimeter of the airfield. Duckboarding from the interior of a possible breastwork was identified towards the north.*

*Scrub clearance carried out as part of the evaluation enabled the identification of a hitherto unidentified pillbox at the north of the site with an adjoining anti-aircraft position. An intriguing open-sided structure possibly relating to the known adjacent rifle range was built into an earth bank. Concrete blocks that conceivably relate to the end of a row of pipe bombs were also exposed within the topsoil at the extreme north of the site.*

*The investigation has added to what is already known about the site, attested by the extant structures including pillboxes, air-raid shelters and anti-aircraft gun positions along the defensive line and within the airfield.*

*The earth bank and related brick structure are essentially undated, but pre date the Second World War.*

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## **1.0 INTRODUCTION**

### **1.1 Site Background**

- 1.1.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) was commissioned by Mott MacDonald Limited (MML) on behalf of their clients the Environment Agency (EA) for an archaeological trial trench evaluation (“the Evaluation”) and archaeological watching brief (“the Watching Brief”) within Reach W7 (on the west bank of the Adur) and Reach E3 (on the east bank of the river) respectively in advance of the proposed Shoreham Adur Tidal Walls (SATW) Scheme (Reach W7 centred: TQ 206,055; Reach E3 TQ 206, 061; Figure1).
- 1.1.2 The Watching Brief was conducted in conjunction with groundworks associated with insertion of boreholes or window samples within Reach E3, (Figure 2). The Evaluation comprised eight 10m trenches within Reach W7, (Figure 2).

### **1.2 Geology and Topography**

- 1.2.1 The solid geology in the area comprises of the Newhaven and Seaford Chalk Formations consisting almost entirely of Upper Cretaceous White Chalk, with some small overlying deposits of Palaeocene clay, silts, sands and gravels of the Lambeth Group.
- 1.2.2 The chalk is classified as a highly permeable major aquifer. The uplifting and gently folding of the chalk began 70-75 million years ago and continued beyond the end of the Cretaceous period (65 million years ago) until as recently as 1.8 million years ago.
- 1.2.3 British Geological Survey (BGS) information indicates that there are four superficial deposits within the study area of the east and west banks. These include Beach and Tidal Flat Deposits, Storm Beach Gravels, Tidal Flat Deposits and Alluvium. The superficial deposits of the Shoreham area shows alluvium marking the location of the former marshy estuary of the Adur, immediately west of the historic settlements of Old Shoreham and New Shoreham. Within this, beach and tidal flat deposits mark the location of the present channel. The historic town and village – and indeed most of the modern suburbs – lie on undifferentiated soliflucted head, while extending east of pre-railway New Shoreham there are discrete areas of brickearth (Mott MacDonald 2015).
- 1.2.4 South of the River Adur, the spit on which Shoreham Beach is located comprises storm beach deposits.

### **1.3 Planning Background**

- 1.3.1 The requirement of the trial trench evaluation was determined at a pre-planning application meeting with WSCC Principal Archaeologist (Mr Mark Taylor) on the 10th December 2014. All of the archaeological work is being carried out in accordance with Environment Agency (EA) Countryside Right

of Way (CRoW) Act Assent and as part of the EA's best practice environmental obligations. The relevant planning policy which will be used as guidance is summarised below.

- 1.3.2 The new Adur Local Plan should be fully adopted by November 2015. Presently, the 1996 Adur Local Plan contains a 'saved' policy relating to archaeology:

*-Policy AB1*

*'In considering proposals for development, the District Planning Authority will ensure, wherever possible, the preservation of archaeological features. In particular, it will safeguard the fabric and the setting of archaeological features against damaging or discordant development and agree to the removal of such features only in compelling circumstances where there is no practical alternative and subject to adequate provision being made for their recording.'*

- 1.3.3 Archaeological Notification Area 'ANA: DWS8596 - Adur 011' was directly impacted by the Scheme (Reach W7) containing evidence for Second World War military protection for Shoreham Airport, in the form of pillboxes and other Second World War structures. The archaeological trial trench evaluation including the informal walkover and scrub clearance were undertaken within this sensitive area.

## **1.4 Scope of Report**

- 1.4.1 This report details the results of the archaeological watching brief carried out on the 20<sup>th</sup> and 21<sup>st</sup> April 2015 and the archaeological evaluation carried out between the 27<sup>th</sup> and 30<sup>th</sup> April 2015. It has been prepared in accordance with the Shoreham ATW *Archaeological Written Scheme of Investigation* (Mott MacDonald 2015). The watching brief was carried out by John Hirst (Assistant Archaeologist). The evaluation was undertaken by Philippa Stephenson (Archaeologist) and Susan Chandler (Assistant Archaeologist). Recording within the Northern Assessment Area during the evaluation was undertaken by Justin Russell. The fieldwork was managed by Jon Sygrave and the post-excavation work by Jim Stevenson.

## **2.0 ARCHAEOLOGICAL BACKGROUND**

### **2.1 Reach W7 – west bank of the Adur (Figure 2)**

2.1.1 Shoreham-by-Sea was fortified during the summer of 1940, when the threat of invasion loomed. The history of how the local people were affected by the war has been well documented on the Shoreham-by-Sea history portal. At the outbreak of the war a new defence force called the Local Defence Volunteers was formed. By 1940 it was renamed the Home Guard with battalions within counties and further reorganisation in 1943 resulted in Shoreham becoming the 9th Sussex (Shoreham) Battalion Home Guard.

2.1.2 The Shoreham line was part of a network of defences called Stop Lines. A line of defensive obstructions and concrete blocks were placed all along the open stretches of coastline. Beaches were mined, barbed wire entanglements were set up, and gun emplacements located along the river bank. Such emplacements exist by the airfield and the grammar school playing fields (now Greenacres). Two large Bofors anti-aircraft guns are also present in the Nicolson Drive end of the Ham Field allotments.

2.1.3 Along the west banks of the River Adur (Reach W7) in the summer of 1940 fortifications were constructed, and concrete and brick structures known commonly as pillboxes were instated. The pillboxes would have provided protective firing cover across the River Adur and the important Shoreham airport. Some of the surviving pillboxes are constructed into the bank of the existing flood defences. An anti-tank vertical rail, also known as a 'hairpin', is still present adjacent to the river and the old wooden toll bridge.

2.1.4 A substantial amount of military activity was undertaken within the Shoreham area during the Second World War, and recorded evidence indicates that enemy aircraft inflicted bomb damage to the airfield and some of the immediate rural areas.

### **2.2 Reach E3 – east bank of the Adur (Figure 2)**

2.2.1 Although no wrecks are logged on the hydrographic charts within the study area, one wooden wreck has been recorded on the foreshore (Reach E3) during a walkover at low tide (Mott MacDonald 2015). This wreck is considered to be early 20th century and will not be impacted upon by the Scheme. It is not expected that any additional wrecks will be impacted upon by the Scheme. No jetties or piles from the Roman or medieval harbour or anchorages are known to survive. Nonetheless, it has been suggested that any anchorage would have been located on the west side of the town within the vicinity of Reach E3.

### **2.3 Project Aims and Objectives**

2.3.1 The aims and objectives of the archaeological evaluation were to determine the presence or absence of archaeological remains, and characterise (nature, date, complexity and extent) any deposits which may be affected by the proposed scheme.

- 2.3.2 More specifically the primary objective was to try and establish any further evidence of former structures dating to the Second World War stop line and airfield defences along the west bank of the River Adur.
- 2.3.3 The archaeological watching brief within Reach E3 had the objective of locating and recording any archaeological remains, with particular regard to the possibility of a Roman, medieval or early post-medieval harbour at this location.

### **3.0 ARCHAEOLOGICAL METHODOLOGY**

#### **3.1 Fieldwork Methodology**

- 3.1.1 Boreholes excavated by the contractor were observed along the line of the proposed works in Reach E3 (Figure 2). Small hand-dug trenches were excavated prior to the drilling of the boreholes to ensure the observation of any archaeological deposits. The location of Boreholes 01-03 were changed from that shown in the WSI with the agreement of the Mott MacDonald Limited Archaeological Consultant.
- 3.1.2 Eight trial trenches 10m in length were excavated in the area known as Reach W7. They were excavated under archaeological supervision using an appropriately sized mechanical excavator fitted with a wide ditching bucket. The trench locations were predetermined in order to target potential structure locations and to investigate anomalies observed on the 1946 aerial photograph (Figure 2).
- 3.1.3 An informal walkover was undertaken across the whole of the scheme area within Reach W7 in order to identify visible remains and accurately locate any identified heritage assets. Earthworks and other currently visible structures were not subjected to measured survey at this stage, but were identified and their extent and quality of survival recorded. Structures and earthworks were levelled against Ordnance Datum.
- 3.1.4 An overgrown area measuring approximately 40m x 15m at the northern end of the Reach W7 ('Northern Assessment Area' on Figure 2) was cleared of scrub to reveal the remains of structures in existence at this location. Once the structures were exposed, their extent and quality of survival was recorded. Levels were taken in reference to Ordnance Datum. The area proposed for scrub clearance (Northern Assessment Area) was set out in the WSI and confirmed during an on-site meeting between the evaluation supervisor (Philippa Stephenson), the Archaeological Consultant (Paul Riccoboni) and Justin Russell, the ASE specialist in 20<sup>th</sup> Century military remains.
- 3.1.5 All trench locations were scanned for unexploded ordnance and services by the principal contractor (ESG) prior to excavation, and subsequent to consultation of service plans. Close guidance regarding potential UXO hazards was provided by ESG employed specialists.
- 3.1.6 The accompanying ecologist verified the absence of wildlife in the long grass and undergrowth cleared in preparation for the excavations, and all trenches were stripped under his supervision.
- 3.1.7 The excavation of the trial trenches within Reach W7 was undertaken under the supervision of the ASE archaeological supervisor (Philippa Stephenson). The machining was undertaken to the uppermost archaeological/Second World War horizon or the natural geology (whichever was encountered first).
- 3.1.8 The archaeological trenches did not exceed 1.2m in depth, with the exception of three deep sondages (1.5 x 1.40 x 1.5m deep) located within the extent of

Trenches 1, 6 and 7. These sondages were rapidly machine-excavated to assess the potential for archaeology below superficial alluvial deposits. Their excavation was agreed with the principal contractor. Observations were effected from the sides of the sondages which were not entered at any point, and then immediately back-filled. Machining was carried out with a flat bladed bucket and in horizontal spits. The evaluation trenches were stepped where they exceeded a depth of 0.50m.

- 3.1.9 Metal detectors were used to scan for metallic finds on spoil heaps and during the excavation of key archaeological features or deposits.
- 3.1.10 All Second World War structures/features and any earlier features were planned either digitally or hand drawn and located.
- 3.1.11 A single Second World War pit was identified and was 50% excavated to enable identification of its function.
- 3.1.12 All sectioned and excavated archaeological features were drawn at a scale of 1:20 or 1:10 and were levelled to Ordnance Datum. Detailed logs were recorded of the stratigraphy within each trench. A sample section of the truncated deposits in trench 5 was drawn at 1:20.
- 3.1.13 All archaeological features and deposits were allocated context numbers prior to any hand excavation. Unique context numbers (shown in square brackets [0]) were given to cuts and deposits (including both fills and layers). These were recorded on pro-forma context sheets detailing: character, contextual relationships, a detailed description, associated finds, interpretation and cross referencing to the drawn, photographic and finds records.
- 3.1.14 An adequate photographic record of the investigations was made of all excavated areas and all archaeological features and deposits. The photographic record consists of 35mm format black and white negatives and digital images. The photographic record includes photographs and images of all archaeological features. Photographic records include information detailing: site code; date; context(s); section number; a north arrow and a scale unless they are to be used for publication purposes. The black and white negatives were filed. All photographs were listed and indexed on context record sheets.
- 3.1.15 All finds were treated in a proper manner and to standards agreed in advance with the recipient museum. They were exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with best professional practice.
- 3.1.16 No environmental samples were taken.
- 3.1.17 All work was undertaken to standards described in the Chartered Institute for Archaeologist's *Standard and Guidance for archaeological evaluation* (CIfA 2014a).

## **3.2 Archive**

- 3.23.1 The site archive is currently held at the offices of ASE and will be deposited

with Shoreham (Marlipins) Museum in due course. The contents of the archive are tabulated below (Table 1).

Number of Contexts	77
No. of files/paper record	1 File
Plan and sections sheets	2
Bulk Samples	0
Photographs	76
Bulk finds	1 box
Registered finds	0
Environmental flots/residue	0

Table 1: Quantification of site archive

## 4.0 RESULTS

### 4.1 Watching Brief: Boreholes 01-04, 06 and 07

4.1.1 Six boreholes were located along the length of the proposed Scheme on the east side of the Adur estuary (Reach E3; Figure2). Archaeological observations extended to a depth of 1.20m, affected on the borehole core.

4.1.2 Boreholes 1, 3, 6 and 7 were located on the old railway embankment. Borehole 2 was located on the shoreline, and borehole 4 was situated away from the embankment in an adjacent arable field next to Shoreham Road.

4.1.3 Alluvial deposits were only reached in Boreholes 1 and 7. In the other four boreholes, the sedimentary sequence consisted only of topsoil and made ground. The topsoil varied between thickness of 0.06m and 0.20m. The detailed observations made in each borehole are shown in Table 2.

<b>Borehole 01</b>			
Depth (m)	Description	Inferred deposition	Context
0 - 0.06	Light brown sandy clay	Topsoil	[100]
0.06 - 1.14	Mid grey clay silt with frequent chalky rubble and occasional CBM fragments	Made ground	[101]
1.14 -	Mid brown sandy silt alluvial deposit with frequent gravel	Alluvium	[102]
		Base of borehole: 1.20m	
<b>Borehole 02</b>			
Depth (m)	Description	Inferred deposition	Context
0-0.20	Light brown sandy clay	Topsoil	[100]
0.20-	Mid grey clay silt with frequent chalky rubble	Made ground	[108]
		Base of borehole: 1.00m	
<b>Borehole 03</b>			
Depth (m)	Description	Inferred deposition	Context
0-0.20	Light brown sandy clay	Topsoil	[100]
0.20-0.40	Yellowish brown and mid grey flinty gravel with frequent pieces of flint	Made ground	[109]
0.40-	Chalky rubble	Made ground	[110]
		Base of borehole: 1.20m	
<b>Borehole 04</b>			
Depth (m)	Description	Inferred deposition	Context
0-0.20	Light brown sandy clay	Topsoil	[100]
0.20-0.40	Yellowish brown and mid grey flinty gravel with frequent pieces of flint	Made ground	[111]
0.40-0.96	Chalky rubble	Made ground	[112]



0.96-	Dark brown sandy clay with occasional CBM fragments	Made ground	[113]
		Base of borehole: 1.20m	
<b>Borehole 06</b>			
Depth (m)	Description	Inferred deposition	Context
0 - 0.20	Light brown sandy clay	Topsoil	[100]
0.20 -	Mid grey clay silt with frequent chalky rubble	Made ground	[103]
		Base of borehole: 1.20m	
<b>Borehole 07</b>			
Depth (m)	Description	Inferred deposition	Context
0 - 0.20	Light brown sandy clay	Topsoil	[104]
0.20 - 0.65	Loose mid grey sandy flinty rubble with occasional tarmac and CBM fragments	Made ground	[105]
0.65-0.90	Dark yellowish brown clay	Alluvium	[106]
0.90-	Bluish grey clay with occasional pieces of flint	Alluvium	[107]
		Base of borehole: 1.20m	

Table 2: Boreholes records

## 4.2 Evaluation

4.2.1 Eight 10m x 1.40m valuation trenches were effected along the length of the scheme on the west side of the Adur estuary (Reach W7: Figure 2), numbered north-south as trenches 1-8. They were located as far as possible with a view to locating remains of Second World War structures (hut-bases). The location of the trenches varied slightly from that determined in the pre-excavation phase due to some set-up difficulties and the identification of services and potential ordnance (see 3.1.3).

### 4.3 Trench 1 (Figure 3)

4.3.1 Trench 1 was 11m long, orientated north-east – south-west and excavated to a maximum depth of 0.50m. Under guidance from the UXO and service scan this trench was finally situated slightly northward of the targeted anomaly (Figure 3). In addition, a gap of 2.5m in the middle of the trench was inserted due to the location of a service.

4.3.2 A sondage 1.5m deep to verify stratigraphy was situated towards the mid part of the trench. An alluvial deposit of dark bluish grey silty-sand [1/008] was attained at a depth of 1.26m below ground level and excavated to a depth of 0.20m. It was sealed by layer of mid-yellow brown alluvial sandy-silt [1/003] 1.14m thick with no inclusions. The alluvium was sealed by a subsoil deposit of friable mid reddish brown silty-clay [1/002] 0.10m thick and topsoil [1/001] 0.4m thick. A 0.50m thick dump of friable light greyish-brown silty-clay with ashy inclusions situated at the northern end formed an embankment just clipped by the trench and running to the south west of a major drainage ditch

running parallel to the estuary.

4.3.3 A shallow sub-rectangular pit [1/005] with rounded corners was located in the northern part of the trench, truncated on the eastern side by a modern service trench. The pit continued under the baulk. An end segment was excavated revealing rectilinear traces of desiccated timber planking [1/006] partially lining the base and shallow concave sides of the pit. The planks were 0.20m wide, with spaces between. A sterile mid yellow silty-clay deposit sealed the timbers within the pit [1/007]. No other material culture traces were retrieved.

4.3.4 It is probable that the planks [1/006] once formed a level surface or platform set directly on the ground, which has now sunk into the underlying deposit forming the concave hollow.

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
1/001	Layer	Topsoil	11.0	1.4	0.10	2.09
1/002	Layer	Subsoil	11.0	1.4	0.04	1.99
1/003	Layer	Alluvium	1.5	1.4	1.14	1.95
1/004	Layer	Made ground	0.50	1.4	0.30	2.39
1/005	Cut	Timber lined pit	1.50	0.70	0.20	1.73
1/006	Fill	Fill of [1/005]	1.50	0.70	0.20	1.73
1/007	Fill	Fill of [1/005]	1.50	0.70	0.20	1.70
1/008	Layer	Blue alluvial silty sand	1.50	1.4	0.20	0.81

Table 3: Trench 1 list of recorded contexts

#### 4.4 Trench 2 (Figure 4)

4.4.1 Trench 2 was situated in close proximity to trench 1 and orientated north-west – south-east (Figure 4). Measuring 8.6m in length the trench was excavated slightly short owing to the presence of a brick-built modern service conduit exposed at its north-western extreme. It was excavated to a maximum depth of 0.40m at its south-western end. A concrete platform [2/002] forming a probable hut base was exposed.

4.4.2 Natural mid yellowish-brown silty-clay alluvium [2/003] was attained at a depth of 0.30m in the north-western half of the trench and excavated to a depth of 0.10m.

4.4.3 The concrete platform [2/002] was exposed directly beneath a thin skim of topsoil [2/001] in the south-east half of the trench. The base of a rectangular or sub-rectangular structure, it was oriented north-west – south-east parallel to the shore and embankments to its east. Measuring 3.20m across, it was observed over a maximum of 2.74m on the incompletely exposed axis.

4.4.4 A gravelly deposit of dark blackish brown mixed topsoil [2/004] was excavated along the immediate edge of the platform to expose the full depth of the concrete slab.

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
2/001	Layer	Topsoil	8.6	1.40	0.21	1.88
2/002	Construction	Concrete Slab	3.20	2.74	0.21	1.92
2/003	Layer	Alluvium	4.60	1.40	>0.10	1.67
2/004	Layer	Made Ground	1.40	0.40m	0.22	

Table 4: Trench 2 list of recorded contexts

#### 4.4 Trench 3 (Figure 5)

4.4.1 Trench 3 was orientated north-east – south-west and excavated to a length of 9.50m and a maximum depth of 0.55m. A concrete platform [3/002] forming a hut base was exposed (Figure 5).

4.4.2 A light yellowish-white sandy-silt alluvium [3/003] was attained at a depth of 0.20-25m below ground level in the south of the trench.

4.4.3 The south-west corner of a concrete slab [3/002] was attained at a depth of 0.34m below topsoil/subsoil [3/001] over 2.85 x 2.27m occupied the northern end of the trench. It was excavated to its full thickness of 0.20m. The slab had a slight step 0.1m deep by 0.2m wide on its south-western side. A metal pipe or protected cable ran approximately parallel with the south-eastern edge of slab [3/002] and may be contemporary with it. The cut for this was not visible in section.

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
3/001	Layer	Topsoil	9.10	1.40	0.43	2.43
3/002	Construction	Concrete Slab	2.85	2.27	0.20	2.00
3/003	Layer	Alluvium	9.10	1.4	>0.30	1.80

Table 5: Trench 3 list of recorded contexts

#### 4.5 Trench 4 (Figure 6)

4.5.1 Trench 4 was orientated north-east – south-west and excavated to a length of 9.00m due to machine access difficulties and a maximum depth of 0.96m. A concrete platform [4/006] forming a hut base was exposed (Figure 6). In the south-east corner of the airfield a surviving structure of similar length and width gives a good idea of the original form of the building which stood on [4/006].

4.5.2 A light yellowish-white sandy-silt alluvium [4/007] was attained at a depth varying between 0.94 and 0.69m apparently truncated to the south-west end

of the trench.

4.5.3 The south-west corner of a concrete slab [4/006] was attained at a depth of 0.85m below ground level, sealed by a single deposit 0.65m thick of rubbly made ground [4/003] located at the top of the embankment. Its maximum identified dimension across is 4.5m and its full depth was 0.21m.

4.5.4 To the south of the hut base [4/006] the alluvium was sealed by a series of made ground deposits; at the base [4/005], a lens of re-deposited light whitish grey sand [4/004], a made ground layer [4/003] containing large concrete fragments probably deriving from the demolition of the structure and a lens of grey ashy deposit [4/002]. A dark reddish-black demolition deposit with modern rubbish glass and tarmac was hand excavated immediately adjacent to the structure and is probably the same as [3/003]. These layers together constitute the make-up deposits for the embankment erected over the concrete base presumably at the time the structure was demolished.

4.5.5 An iron screw picket, possibly of Second World War date was retrieved from [4/003].

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
4/001	Layer	Topsoil	9.0	1.40	0.20	2.67
4/002	Layer	Made ground	3.5	1.40	0.25	2.47
4/003	Layer	Made ground	9.0	1.40	0.20-0.65	2.47-2.22
4/004	Layer	Made ground	3.20	1.40	0.21	2.03
4/005	Layer	Made ground	4.0	1.40	0.10	2.03
4/006	Construction	Concrete Slab	4.5	1.40	0.20	2.03
4/007	Layer	Alluvium	9.0	1.40	0.21	1.83

Table 6: Trench 4 list of recorded contexts

#### 4.6 Trench 5 (Figure 7)

4.6.1 Trench 5 was orientated north-east – south-west and excavated to a length of 9.80m. A rubble platform [5/004] forming a possible hardstanding was exposed. This surface, not initially established as possibly structural rather than a demolition dump, was truncated by machine enabling observation of the deposit depth and make-up. The feature [5/005] would seem to be some form of hardstanding on the northern exterior of a hut visible on the 1946 aerial photograph (7.4.6).

4.6.2 A light yellowish-white sandy-silt alluvium [5/007] was attained at a depth of 0.60m in the southern half of the trench.

4.6.3 A cut [5/008] truncated the alluvium [5/007] over a probable maximum width of 4.10m. The cut is 0.38m deep with a flat base and concave south-west edge. A thin basal fill [5/006] of loose cinder and tarmac 0.03m thick, lines the cut, sealed by a deposit of compacted chalk [5/005] 0.10m thick that forms a foundation for the compacted rubble deposit [5/004]. The layer comprises

fragments of brick masonry within a loose mixed mortar, tarmac and sandy-silt matrix and form a flat upper surface.

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
5/001	Layer	Topsoil	9.80	1.40	0.15	2.50
5/002	Layer	Subsoil	9.80	1.40	0.20	2.35
5/003	Layer	Made ground	9.80	1.40	0.21	2.15
5/004	Layer	Demolition/surface	>1.50	4.10	0.14	1.94
5/005	Layer	Compacted chalk platform	>1.50	>2.08	0.10	1.80
5/006	Fill	Cinder/tarmac	>1.50	>2.08	0.03	1.66
5/007	Layer	Alluvium	4.16	1.40	0.25	1.80
5/008	Cut?	For chalk platform	>1.50	>2.08	0.38	1.90

Table 7: Trench 5 list of recorded contexts

#### 4.7 Trenches 6, 7, and 8 (Figure 2)

Context	Type	Description	Max. Length (m)	Max. Width (m)	Deposit Thickness (m)	Height (m) AOD
6/001	Layer	Topsoil	11.6	1.40	0.25	1.90 - 2.20
6/002	Layer	Made ground	11.6	1.40	0.20	1.90
6/003	Layer	Alluvium	11.6	1.40	0.50	1.75
6/004	Layer	Alluvium/ Sandy silts	1.50	1.40	0.80	1.25
6/005	Deposit	Made ground/ made ground	1.20	1.06	0.20	1.75
7/001	Layer	Topsoil	9.90	1.40	0.22	1.72
7/002	Layer	Alluvium	9.90	1.40	0.40	1.50
7/003	Layer	Alluvium Sandy silt	1.50	1.40	0.48	1.10
7/004	Layer	Gravels	1.50	1.40	0.30	0.62
8/001	Layer	Topsoil	9.60	1.40	0.20	2.27-2.87
8/002	Layer	Made ground	9.60	1.40	0.60	2.67
8/003	Layer	Cinder/tarmac	5.40	1.40	0.03-0.08	2.07
8/004	Layer	Buried topsoil	9.60	1.40	0.15	1.99-2.04
8/005	Layer	Alluvium	9.60			1.84 -1.89

Table 8: Trenches 6, 7 and 8 list of recorded contexts

4.7.1 The top of the alluvium of light yellowish white sandy silt [6/003] / [6/004], [7/002] / [7/003] and [8/005] was situated at an altitude varying between height of circa 1.50m and 1.89m aOD.

4.7.2 Trench 6 exposed a small extent of a chalk rubble 1.20 x 1.06m and 0.20m thick [6/002] at its extreme north-east end above the alluvium. This was sealed by mixed silty-sand deposit [6/005] forming the edge of the made ground for the embankment, and sealed by topsoil. A deep sondage was excavated towards the northeast end of trench 6 to a depth of 1.45m (altitude 0.25m aOD). A lower alluvial deposit [6/004] very similar in nature to

overlying [6/003] but slightly sandier continued throughout. Gravels were not attained.

4.7.3 Trench 8 traversed the south-west side of the linear bank comprised of a single dump of mixed modern deposits [8/002] with rubble and modern debris. This sealed the predating topsoil forming a buried soil [8/004]. A thin cinder and tarmac deposit 5.40m wide across the trench and 0.08m deep, possibly the trace of a modern cinder track or simple waste deposit predating the embankment.

4.7.4 Trench 7 was devoid of activity. A deep sondage at its eastern end was excavated to a depth of 1.40m. Gravels were attained at a depth of 1.38m and the water table at a depth of 1.40m. The alluvium, as in trench 6 comprised of two light yellowish white sandy silt deposits [7/002] sealing the lower slightly sandier [7/003], the upper layer [7/002] sealed directly by topsoil.

#### **4.8 Northern Assessment Area (Figures 8-12)**

4.8.1 The area in the north subject to scrub clearance, in the vicinity of the Old Shoreham Toll Bridge was selected due to the cluster of unidentified buildings noted on the 1946 aerial photograph. The location, within a dog-leg of the bank of the River Adur, contains a number of extant structures relating to the Second World War, notably two pillboxes built onto the river bank and a 25 pounder gun emplacement placed on the western side of the drainage ditch associated with the bank. Also within the area are a military structure presumed to be a guard or storage building and an east west aligned earth bank, on which the gun emplacement was constructed. In approximately 2007 (Google Earth image) a drainage ditch was excavated through the bank, truncating to the extent whereby it now exists as two separate mounds of earth (Figure 8).

4.8.2 Clearance took place on the southern side of the bank, between the 25 pounder gun emplacement in the east and the guard hut in the west. Revealing two areas of visible structural elements, a further stage of topsoil clearance was agreed and focused around the structures. The first, brick structure [1116], was a three sided brick rectangle, placed with the earth bank. The upper reaches of the walls had all suffered damage, but at the southern open end, the topsoil removal revealed a battered slope, matching the profile of the bank, suggesting that structure was built to be open ended. The east and west walls were 230mm thick (one brick stretcher length) at the battered end but halfway into the bank the wall thickened to 350mm thickness. The rear wall was unusually curved and, towards the base of its visible extent, stepped out to increase the thickness to approximately 500mm.

4.8.3 Clearance at the immediate south of the structure revealed the topsoil [1114] overlying deposit [1115], a grey silty clay the same material which forms the basis of the bank. It was not clear from this initial assessment whether the bank was built around the structure or if the structure had been built into the existing bank. There were no finds from within structure [1116] or bank [1115], but the topsoil [1114] partially removed to the south, overlying the bank, contained a number of fired .303 bullets.

4.8.4 The second area of topsoil removal was on the western side of the bank, around some exposed slabs of concrete. These consist of a rectangular slab of concrete [1120] (2.5m by 2.9m) on which a smaller but thicker slab resides (measuring 1.8m by 1.8m). The southern corner of this upper slab features an inset curve and centrally placed on the upper surface of the slab is a 200mm circular recess from which at least four steel bolts protrude.

4.8.5 To the south and partially beneath this is a further slab of concrete, [1118], not fully exposed and partially damaged by slumping and the excavation of the drainage ditch circa 2007. The south-western edge of this slab exhibits a straight edge which turns at both extremities at approximately a 45 degree angle. A longer straight edge is visible opposite this, but was only able to be partially excavated due to tree cover. This, combined with the longer straight edge at the north-eastern extent of the slab, suggest a pentagonal or more likely hexagonal shape in plan.

4.8.6 A final area of topsoil stripping took place between [1120] and the road on which the guard hut is placed, and revealed two pieces of concrete, apparently in-situ and well bedded into the ground. The first [1121] (450mm by 250mm) had a flat top and tapered sides. The second [1122] was set lower into the ground and consisted of a simple rectangular piece of concrete (330mm by 550mm).

Context	Type	Description	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
1114	Layer	Topsoil	4.0	2.0	0.10	2.50
1115	Deposit	Bank material	26.0	13.0	>1.4	3.23
1116	Masonry	Brick structure	5.5	3.6	>1.4	2.31
1117	Fill	Fill of 1116	5.5	4.6	0.20	2.77
1118	Masonry	Concrete base	4.2	3.6	0.22	2.90
1119	Deposit	Bank material	10.0	12.6	>1.0	2.94
1120	Masonry	Concrete base	2.8	2.5	0.48	3.18
1121	Masonry	Concrete	0.45	0.25	>0.20	-
1122	Masonry	Concrete	0.55	0.3	Not known	-

Table 9: Northern Assessment Area list of recorded contexts

## 5.0 THE FINDS

### 5.1 Summary

5.1.1 A small assemblage of finds was recovered during the watching brief and evaluation at the Adur Tidal Walls in Shoreham. Finds were washed and dried or air dried as appropriate. They were subsequently quantified by count and weight and bagged by material and context (Table 10). Finds were all packed and stored according to ClfA guidelines (ClfA 2014b) (Table 11).

Context	Pottery	Wt(g)	CBM	Wt(g)	Stone	Wt(g)	Fe	Wt(g)	Slag	Wt(g)	Pb/Cu	Wt(g)
1/007	1	4	2	74	1	2			24	438		
4/003							1	2000				
1114											25	108
<b>Total</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>74</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2000</b>	<b>24</b>	<b>438</b>	<b>25</b>	<b>108</b>

Table 10: Quantification of the bulk finds

Finds	Quantity
Bulk finds boxes	1

Table 11: Finds archive quantification

### 5.2 The Post-Roman Pottery by Luke Barber

5.2.1 The evaluation recovered a 4g scrap of unglazed earthenware flower pot from context [1/007]. A 19<sup>th</sup>- to early 20<sup>th</sup>- century date is likely for this vessel.

### 5.3 The Ceramic Building Material by Luke Barber

5.3.1 The work recovered just three pieces of brick and tile from two individually numbered contexts. Context [1/007] produced a 17g fragment of neatly machine-made 11mm thick flat roofing tile in a fine dense fabric with no obvious inclusions. The same deposit contained part of a land drain (57g) with 10mm thick walls in a medium fired fabric tempered with sparse fine sand and very occasional marl swirls. Both this and the roof tile are of late 19<sup>th</sup>- to mid 20<sup>th</sup>- century date. Context [5/004] produced a 942g fragment from a cable protection brick in a typically 20<sup>th</sup>- century granular fabric. The brick is 107mm wide and 28mm thick at its longitudinal edges, rising to a central apex of 42mm thick. The upper sloped faces are stamped 'ELECT[IC] // CABL[E BELOW]', together with the maker's name of 'BALDWIN'.

### 5.4 The Glass by Luke Barber

5.4.1 Context [1/007] produced a complete, but used, ampoule in colourless glass. At 21mm long and 5mm in width it is notably smaller than ampoules of similar form carried by soldiers for iodine, but could have been used for



other medicines such as morphine. Whether the contents were intended for a human or animal patient is uncertain, but the piece is almost certainly of early/mid 20<sup>th</sup>- century date.

## **5.5 Metalwork** by Justin Russell

5.5.1 24 .303 bullets were recovered from [1114]. In most cases these are fragments only, distorted by impact, with cupro-nickel jackets, lead cores and an internal fibre tip. Within this group is one complete example, a fired tracer bullet (137 grains) dating from the 1930s to the early 1940s. The rifling, 5 grooves on a left hand twist, infer this was fired by a Lee-Enfield rifle, a standard British small arm. Also within [1114] a smaller calibre lead bullet was found, 0.22"/5.5mm in diameter and weighing 42.5 grains. 0.22 bullets are difficult to date, though sub calibre rifles (regular rifles converted to fire smaller bullets) were used in training before, during and after the Second World War.

5.5.2 From context [4/003] came an iron screw picket, with four upper loops, measuring 1.6m in length, though distorted and bent after discard. Originally part of a barbed wire entanglement, screwing into the ground with wire fed through the loops. This would have been one of many hundreds incorporated into the defensive boundary of the airfield, of which the pillboxes and gun emplacements form the remaining visible elements.

## **5.6 The Geological Material** by Luke Barber

5.6.1 A 1g scrap of Welsh roofing slate of mid 19<sup>th</sup>- to mid 20<sup>th</sup>- century date was recovered from context [1/007].

## **5.7 The Slag** by Luke Barber

5.7.1 A small assemblage of slag was recovered from context [1/007] (24/438g). All of this waste consists of black aerated fuel ash slag with some vitrification/bubbling and was probably derived from burning coal. As such it is very much in keeping with the ceramic date for this context.

## **5.8 Summary**

5.8.1 The assemblage from the site is small and includes post medieval pottery, slag and CBM, an early/mid 20<sup>th</sup>- glass ampoule century 20<sup>th</sup>. The remainder of material (bullets and picket) are associated with the defensive activities undertaken on site in the 1940s.

## **6.0 DISCUSSION AND CONCLUSIONS**

### **6.1 Overview of stratigraphic sequence**

6.1.1 The evaluation revealed overburden (made ground and subsoil) overlying a deposit of light yellowish-white sandy silt alluvium 0.80m – 1.14m thick, comprising an upper and lower horizon little differentiated. This alluvium was found across the site at between 1.50m and 1.89m AOD.

6.1.3 The structures discussed below were located on the upper horizon of this alluvial deposit. They all date to the Second World War, with the exception of an earth bank and related brick structure. Although the latter group predates the Second World War, unfortunately it remains undated. No features predating the 20<sup>th</sup> century were identified.

### **6.2 Discussion of Second World War archaeological remains** by Justin Russell

6.2.1 The trenches were located over features observed on a 1946 aerial photograph. The following discussion incorporates interpretation of these anomalies and all the observed Second World War. A composite plan (Figure 12) shows the trench locations and identified features.

#### **6.2.2 Trench 1** (Figure 3)

Trench 1 was located in the area of two anomalies noted on the 1946 RAF aerial photograph. The larger southern anomaly appears to be an open topped thick walled feature, perhaps representing a sandbag/breastwork position for observation or a light anti-aircraft weapon. The footprint left by such a feature may well be negligible. The northern of the pair of anomalies is oval in form and contains three prominent shadows in the centre which continue uninterrupted to the southern boundary of the anomaly, suggesting openings within a banked surround.

The shallow wood lined pit [1/005] identified within Trench 1 broadly matches in location with the eastern-most of the openings. If the overall feature were interpreted as a breastwork, the pit would be one of three slots within the south side, the planks acting as a duckboarding to prevent slippage/sinking for personnel or storage during wet conditions.

#### **6.2.3 Trench 2** (Figure 4)

Concrete platform [2/002], identified in the eastern half of trench 2 matches well with the 1946 aerial photograph, and represents the base of a hut. The roof profile would seem to be curved, as suggested by the gradual diminishing of light reflected from one side to the other, compared with the bright white reflection from known flat roofed structures (pillboxes in the northern area) and this is suggestive of a Nissen hut type structure. One of the most common and easy to assemble temporary structures of the Second World War, the Nissen was popular on airfields for a multitude of purposes. The width of the platform [2/002] at 3.3m (10ft) is less than the standard width

of a Nissen, at 16ft.

#### 6.2.4 **Trench 3** (Figure 5)

Trench 3 yielded a further concrete platform, [3/002] which corresponds well with the 1946 aerial photograph. The slab has a lower outer lip (200mm), representing the footing for the original walls of the structure, with the inner floor some 100mm higher. Light reflected from the top of the structure in the aerial photograph is suggestive of a curved roof of the Nissen hut type, with approximate dimensions of 4.3m (14ft) by 8.1m (26ft). The Nissen hut, with a width of 16 feet and built in multiples of 6 feet would be a likely candidate for this structure. A metal pipe runs parallel to the west of the platform, and may be contemporary, either for water or a protected electricity cable.

#### 6.2.5 **Trench 4** (Figure 6)

A concrete platform [4/006] in Trench 4, consisted of a plain slab of 200mm depth, the south-western corner of which being visible within the excavation. The right angled corner and simple construction would suggest a base for a prefabricated hut, measuring approximately 7.7m (25ft) by 5.7m (18ft). The aerial photograph roof reflection is bright white, indicating a flat or mildly pitched roof. In the south east corner of the airfield is an extant hut, also visible on the 1946 photograph which not only displays a similar reflected light signature but matches in length and breadth. Study of the existing structure, (assuming it is original) and concrete base measurements, would suggest it is of the Laing or BCF (British Concrete Federation) design (British Military Airfields reference). It would most likely have functioned as a store or accommodation.

#### 6.2.6 **Trench 5** (Figure 7)

The feature in Trench 5 [5/005] would seem to be a form of hardstanding on the northern exterior of a hut visible on the 1946 aerial photograph. The hut (of Nissen type) has a small square structure on its western side and to the north an area which, though difficult to interpret, would appear to be a small banked area, flanked by two small square objects. The area in between, shows wear by vehicle/pedestrian access and may well account for the compact deposit found here.

#### 6.2.7 **Trenches 6-8** (Figure 12)

These three trenches at the southern end of the boundary between the airfield and the Adur were essentially negative, with deposits of chalk rubble in Trench 6, forming part of the modern bank to the Adur and modern made ground containing demolition rubble.

#### 6.2.8 **Structure 1116 (Northern assessment area)** (Figures 8 – 12)

Brick structure [1116] was constructed for a purpose unknown. The bank in which it is placed first appears on the 1933 25 inch Ordnance Survey map (Fig. 9), shown as approximately 38m by 11m. The 1953 25 inch Ordnance

survey map shows a distinct development within the area, most notably with the construction of a miniature rifle range. Most, perhaps all airfields of the Second World War had an associated rifle range, for the ground based staff to practice musketry in the event of an invasion. Regular rifle ranges for infantry training could extend up to 1000 yards in length with considerably larger areas, 'danger areas', to the rear which would be out of bounds during firing. Space did not allow such luxury on airfields, especially within built up areas, so a compromise was made in the 25 yard range. The nomenclature on the 1953 map is somewhat misleading, as 'miniature' generally refers to miniature calibre in rifle terminology, i.e. a rifle firing a bullet of reduced size, which requires a smaller danger area. A 25 yard range, however, is designed to cope with full bore rifle practice, in this case the .303 rifle, meaning the weapon used for defence, is the same as the one used for training. To mitigate against shots going astray, the rear of the range, or back stop, consisted of a brick wall 5.5m (18ft) which halts projectiles after passing through the targets.

The range appears on maps as late as the 1980s but it would seem that it had been demolished some time before this, and currently any footings that may still exist remain covered by undergrowth. The relationship between the 25 yard range and the earth bank is unclear, but there is a spatial relationship, albeit potentially coincidental – the rear wall of the rifle range and bank are parallel and the brick structure sits in a central position behind the range wall. As a component of the range, however, the bank is superfluous. Considering Shoreham Airfield's (then known as aerodrome) use in the First World War, it is possible the bank represents an earlier phase of rifle range. This however, is unlikely due to the position of the Old Shoreham Toll Bridge, 60m to the north and the lack of suitable provision for safety. Understanding the curved rear wall of the structure would seem to be crucial to interpreting its original role.

All of the bullets found in this area came from topsoil [1114] fit well into the 1940s date for use for the 25 yard rifle range. When the range was active, the bullets would have been contained within the brick backstop structure, but on demolition, they have been incorporated within the general demolition material spread over the sunken elements of the rifle range. No bullets were noted within the bank material, though a full inspection was not possible and only further investigation will establish whether any are present.

#### 6.2.9 **Pillbox [1118] – [1120] (Northern assessment area)** (Detail Figure 10)

Seen together the remains [1120] and [1118] appear to represent the hitherto unrecorded location of a pillbox on the airfield periphery, on a similar design to one in the far south-east of the airfield (Fig. 10). Made up of a main hexagonal/heptagonal pillbox, there is an additional square open topped annex for a machine gun in a light anti-aircraft role. The pillbox has been, at some point, demolished by the removal of walls and roof, while the footings remain in place. The floor of the anti-aircraft machine gun position was constructed at a higher level than that of the pillbox but once the walls had been removed, the thick concrete has slumped to the south, now partially overlying the pillbox floor. The walls of the pillbox were likely to have been made up of brick shuttering externally and wwoof shuttering internally, with

concrete poured between, while the anti-aircraft position would have been brick only. The pillbox in the south-east, now heavily overgrown, is an identical match in size and shape. Both, critically, point inwards towards the airfield, to act in a defensive role in the instance of the airfield becoming occupied by enemy aircraft, rather than pointing in an easterly direction to act against a land based invasion.

#### 6.2.10 **Concrete blocks [1121] – [1122]** (Detail Figure 8)

Concrete blocks [1121] and [1122] remain at this stage, due to the level of exposure, unclarified. Their position is directly comparable to the location at the end of a row of anti-invasion pipe mines, seen on both the 1946 aerial photograph (Figure 11) and the pipe mine removal plan POL W-HQ15-7 (not shown, WSRO). Pipe mines were added to a selection of airfields considered vulnerable to invasion in 1941 (the year following the main construction of defences in the United Kingdom) with a total of 32 airfields being chosen. The airfield at Shoreham was divided into five vertical and five horizontal rows, each with approximately 30 mines, giving a total overall figure of 275 mines, to be detonated prior to or during capture by German planes. The rows may have had fixed positions at each or one end and perhaps the chamfered upright block [1121] represents the end of northernmost horizontal row E.

### 6.3 **The Finds**

6.3.1 The finds assemblage comprised 20th century building debris, including CBM, slag and a single glass ampoule for the transport / administration of medicinal drugs: iodine, morphine or other. 24 fired bullets dating to the Second World War were retrieved from the topsoil in the vicinity of structure [1116].

### 6.4 **Consideration of research aims**

- 6.4.1 No archaeological traces predating the 20<sup>th</sup> century were identified.
- 6.4.2 The watching brief undertaken on the boreholes in Reach E3 identified no archaeological remains.
- 6.4.3 The eight trenches in Reach W7 confirmed the presence of two Nissen hut bases (trenches 2 and 3), a probable storage hut base (trench 4) and an area of hard-standing adjacent to a further Nissen hut visible on the aerial photograph (trench 5). Trench 1 produced the conserved remains of probable duckboarding situated to the immediate exterior of a breastwork (visible on aerial photograph) thought to be an observation or anti-aircraft weapon emplacement.
- 6.4.4 The scrub-clearance undertaken in the northern assessment area offered the opportunity to record a rectangular brick structure [1116], built into the south-east edge of an earth bank, with a curved rear wall and open to the south-east. The area to the south of this was used as a 25 yard rifle range, but the exact function of the structure has not as yet been determined. Fired bullets were retrieved from the topsoil in its immediate vicinity.

- 6.4.5 The concrete remains [1118] and [1120] accessed by clearance to the west of [1116], represent traces of a hitherto unrecorded pillbox and anti-aircraft machine gun position.
- 6.4.6 Concrete blocks, the top of which were exposed by scrub clearance, situated to the northwest of the pillbox and gun emplacement, may correspond to the end of a pipe mine row. By comparison with the pipe mine removal plan POL W-HQ15-7, chamfered upright block [1121] possibly represents the end of northernmost horizontal row E. If this tentative interpretation is correct, then these remains, representing Second World War defensive lines are of some significance.

## **6.5 Conclusions** (Figure 12)

- 6.5.1 The archaeological operation successfully located a number of Second World War structures situated on the periphery of Shoreham Airfield and along the heavily defended Shoreham section of the Adur Stop Line on the west bank of the Adur estuary, fortified in 1940. Two Nissen hut bases, a storage hut base, and an area of hard-standing located near a third Nissen hut were strung out along the eastern perimeter of the airfield. Duckboarding from the interior of a possible breastwork was identified towards the north. Scrub clearance carried out as part of the evaluation enabled the identification of a hitherto unidentified pillbox at the north of the site with an adjoining anti-aircraft position. An intriguing open-sided structure possibly relating to the known adjacent rifle range was built into an earth bank. Concrete blocks that conceivably relate to the end of a row of pipe bombs were also exposed within the topsoil at the extreme north of the site
- 6.5.2 The investigation has added to what is already known about the site, attested by the extant structures including pillboxes, air-raid shelters and anti-aircraft gun positions along the Shoreham section of the Adur Stop Line and within the airfield (Figure 12).

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advice and the Environment Agency for funding the project.

### HER Summary Form

Site Code	ATW13					
Identification Name and Address	Shoreham Adur Tidal Walls					
County, District &/or Borough	West Sussex					
OS Grid Refs.	Reach W7 centred: TQ 206,055; Reach E3 TQ 206, 061					
Geology	Alluvium					
Arch. South-East Project Number	6833					
Type of Fieldwork	Eval. v	Excav.	Watching Brief v	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban v	Deep Urban	Other		
Dates of Fieldwork	Eval. 20.04.2015 5 21.04.2015 5	Excav.	WB. 27.04.2015 – 30.04.2015	Other		
Sponsor/Client	Mott MacDonald Limited on behalf of their clients the Environment Agency (EA)					
Project Manager	Jon Sygrave					
Project Supervisor	Philippa Stephenson					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Other Modern v		
<p><b>Summary</b></p> <p><i>An archaeological evaluation and watching brief carried out by Archaeology South-East at Shoreham Adur Tidal Walls has successfully identified approximately seven Second World War structures situated on eastern periphery of Shoreham Airfield (also known as Brighton City Airport) and along the heavily defended Shoreham section of the Adur Stop Line on the west bank of the Adur estuary, fortified in 1940.</i></p> <p><i>The archaeological evaluation demonstrated that pre-fabricated hut bases and an area of hard-standing were strung out along the eastern perimeter of the airfield. Duckboarding from the interior of a possible breastwork was identified towards the north.</i></p> <p><i>Scrub clearance carried out as part of the evaluation enabled the identification of a hitherto unidentified pillbox at the north of the site with an adjoining anti-aircraft position. An intriguing open-sided structure possibly relating to the known adjacent rifle range was built into an earth bank. Concrete blocks that conceivably relate to the end of a row of pipe bombs were also exposed within the topsoil at the extreme north of the site.</i></p> <p><i>The investigation has added to what is already known about the site, attested by the extant structures including pillboxes, air-raid shelters and anti-aircraft gun positions along the defensive line and within the airfield.</i></p> <p><i>The earth bank and related brick structure are essentially undated, but pre date the Second World War.</i></p>						



**OASIS ID: archaeol6-212076**

Project details

Project name At Adur Tidal Walls, Shoreham

Short description of the project An archaeological evaluation and watching brief carried out by Archaeology South-East at Shoreham Adur Tidal Walls has successfully identified approximately seven Second World War structures situated on eastern periphery of Shoreham Airfield (also known as Brighton City Airport) and along the heavily defended Shoreham section of the Adur Stop Line on the west bank of the Adur estuary, fortified in 1940. The archaeological evaluation demonstrated that pre-fabricated hut bases and an area of hard-standing were strung out along the eastern perimeter of the airfield. Duckboarding from the interior of a possible breastwork was identified towards the north. Scrub clearance carried out as part of the evaluation enabled the identification of a hitherto unidentified pillbox at the north of the site with an adjoining anti-aircraft position. An intriguing open-sided structure possibly relating to the known adjacent rifle range was built into an earth bank. Concrete blocks that conceivably relate to the end of a row of pipe bombs were also exposed within the topsoil at the extreme north of the site. The investigation has added to what is already known about the site, attested by the extant structures including pillboxes, air-raid shelters and anti-aircraft gun positions along the defensive line and within the airfield. The earth bank and related brick structure are essentially undated, but pre date the Second World War.

Project dates Start: 20-04-2015 End: 30-04-2015

Previous/future work No / Not known

Type of project Field evaluation

Site status Environmentally Sensitive Area (ESA)

Current Land use Coastland 2 - Inter-tidal

Monument type PILLBOXES Modern

Monument type GUN EMPLACEMENTS Modern

Significant Finds BULLETS Modern

Significant Finds AMPOULE FOR MEDICINE SUCH AS MORPHINE Modern

Methods & techniques ""Targeted Trenches""

Development type Marine Renewables Development (wave, tidal)

Prompt Environmental (unspecified schedule)

Position in the planning process After full determination (eg. As a condition)

Project location

Country England

Site location WEST SUSSEX ADUR SHOREHAM BY SEA Adur Tidal Walls,

Shoreham

Study area 1.00 Kilometres

Site coordinates TQ 206 055 50.8358789075 -0.287125594983 50 50 09 N 000 17  
13 W Point

Site coordinates TQ 206 061 50.8412726032 -0.286928073698 50 50 28 N 000 17  
12 W Point

Height OD /  
Depth Min: 0.80m Max: 2.70m

Project creators

Name of  
Organisation Archaeology South East

Project brief  
originator Environment Agency

Project design  
originator Archaeology South-East

Project  
director/manager Jon Sygrave

Project  
supervisor Philippa Stephenson

Type of  
sponsor/funding client  
body

Name of  
sponsor/funding Mott Macdonald Limited  
body

Project archives

Physical Archive  
recipient Marlipins Museum

Physical  
Contents "Glass", "Metal"

Digital Archive  
recipient Marlipins

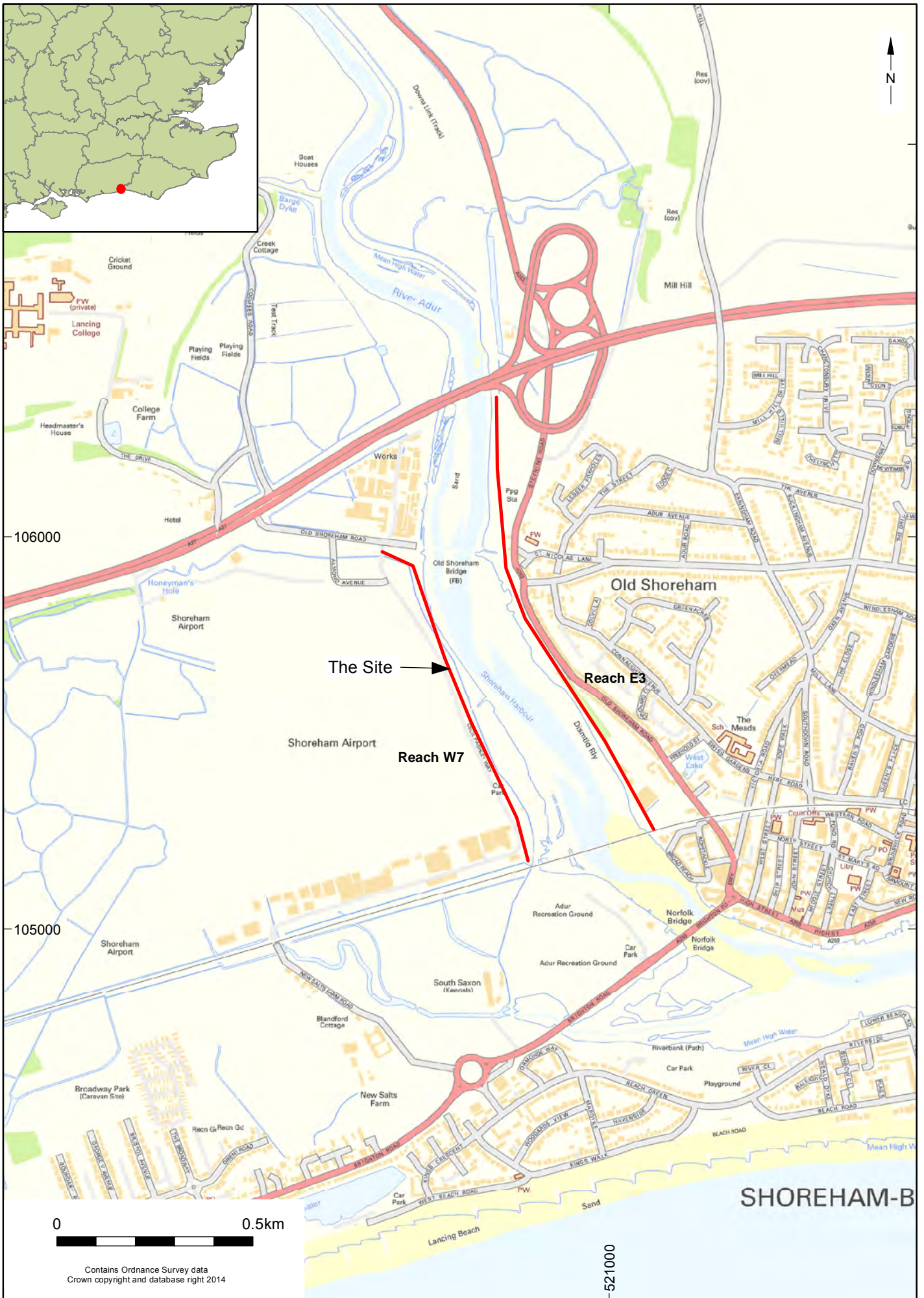
Digital Media  
available "Images raster / digital photography", "Survey"

Paper Archive  
recipient Marlipins

Paper Media  
available "Aerial Photograph", "Context  
sheet", "Correspondence", "Drawing", "Map", "Miscellaneous  
Material", "Photograph", "Plan", "Report", "Section"

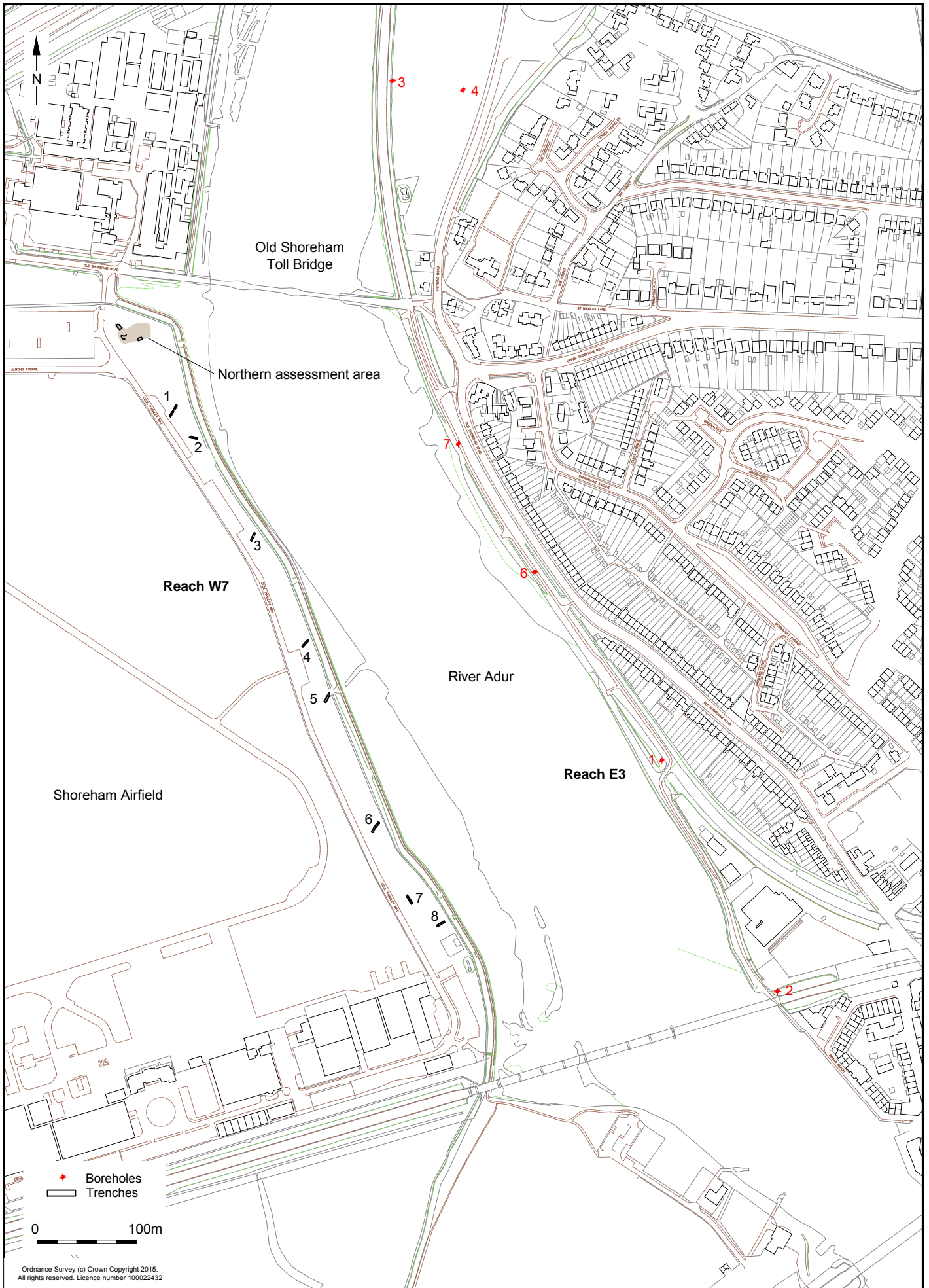
Entered by Karine Le Hegarat (k.hegarat@ucl.ac.uk)

Entered on 28 May 2015



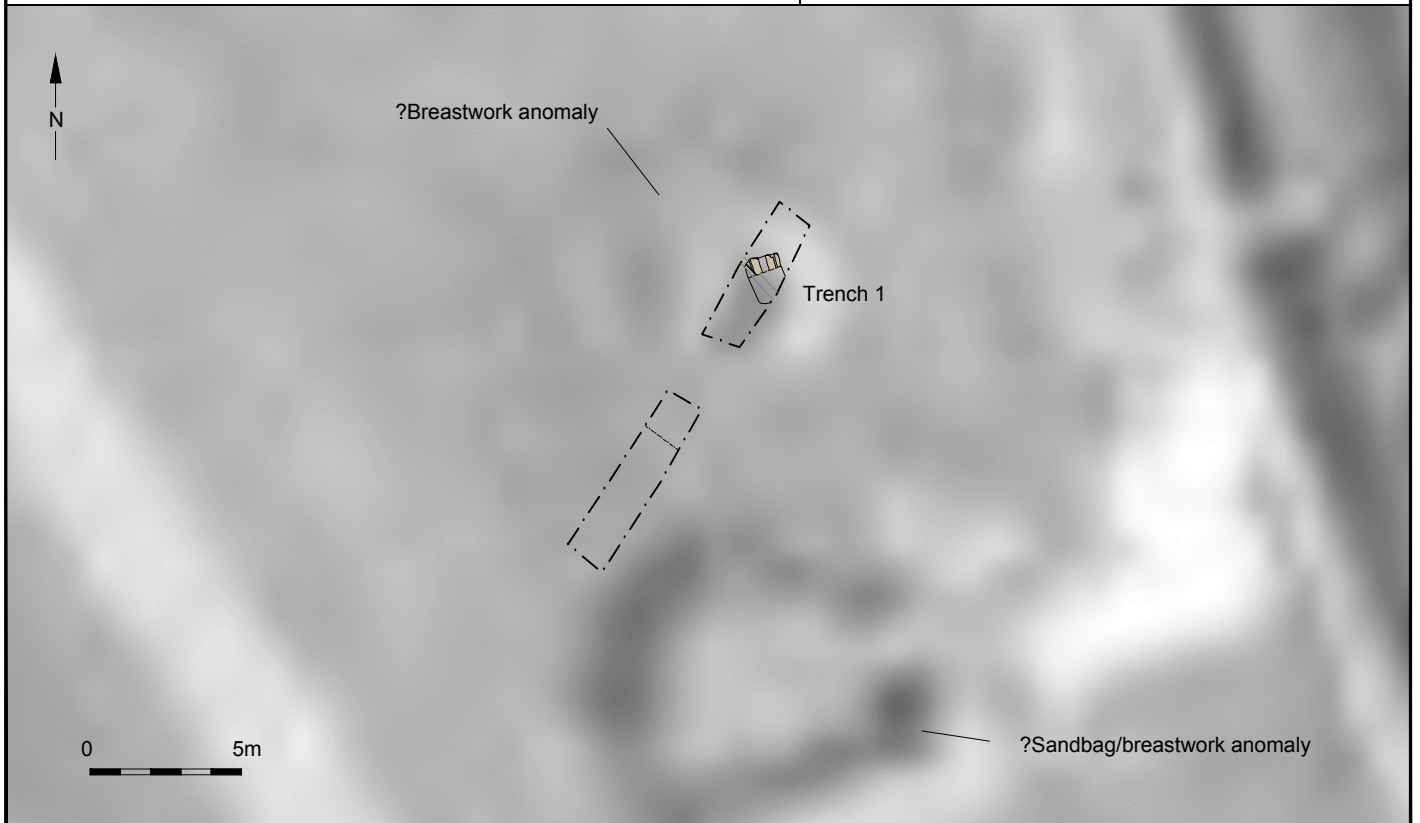
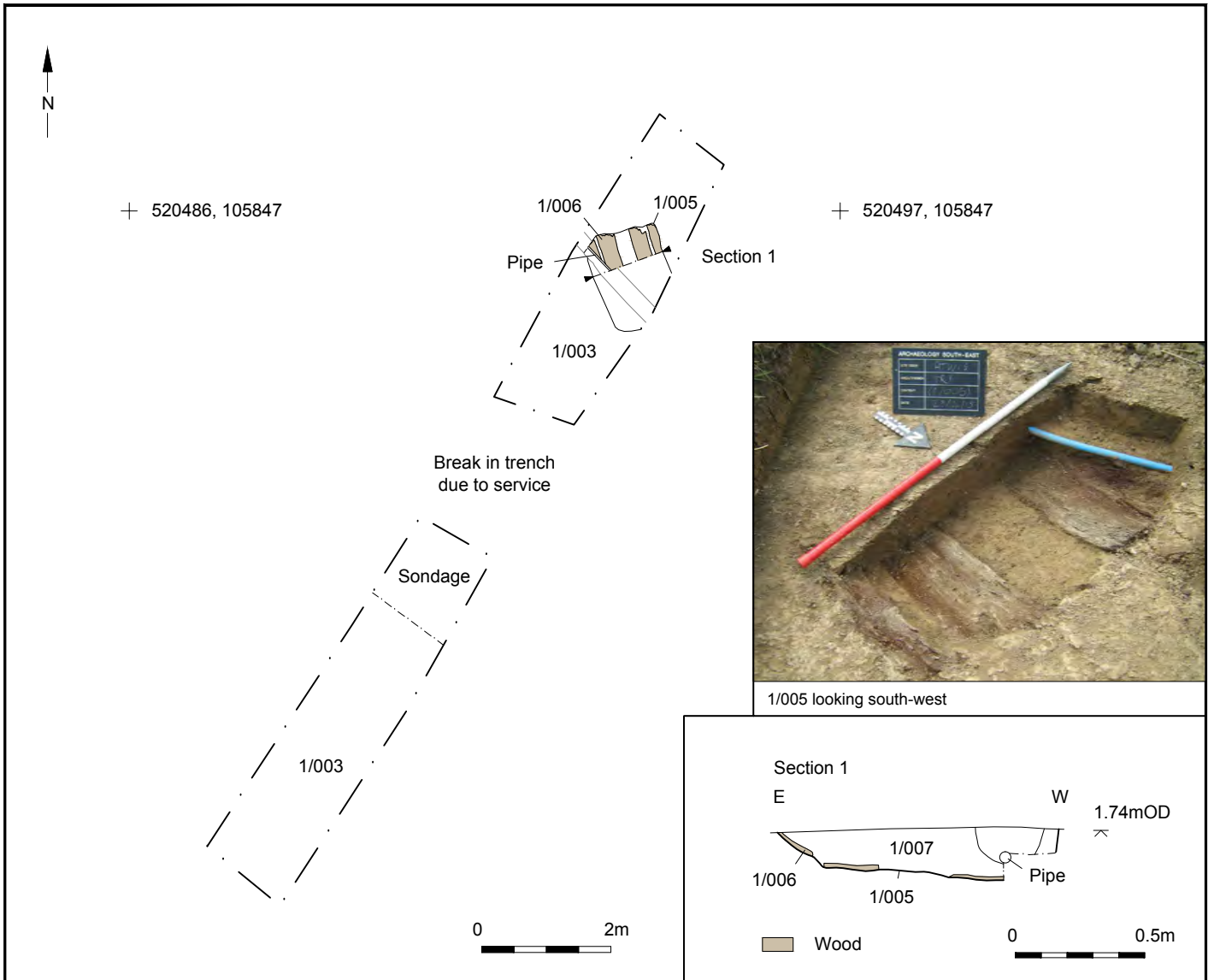
© Archaeology South-East		Adur Tidal Walls, Shoreham		Fig. 1
Project Ref: 6833	May 2015	Site location		
Report Ref: 2015162	Drawn by: JLR			





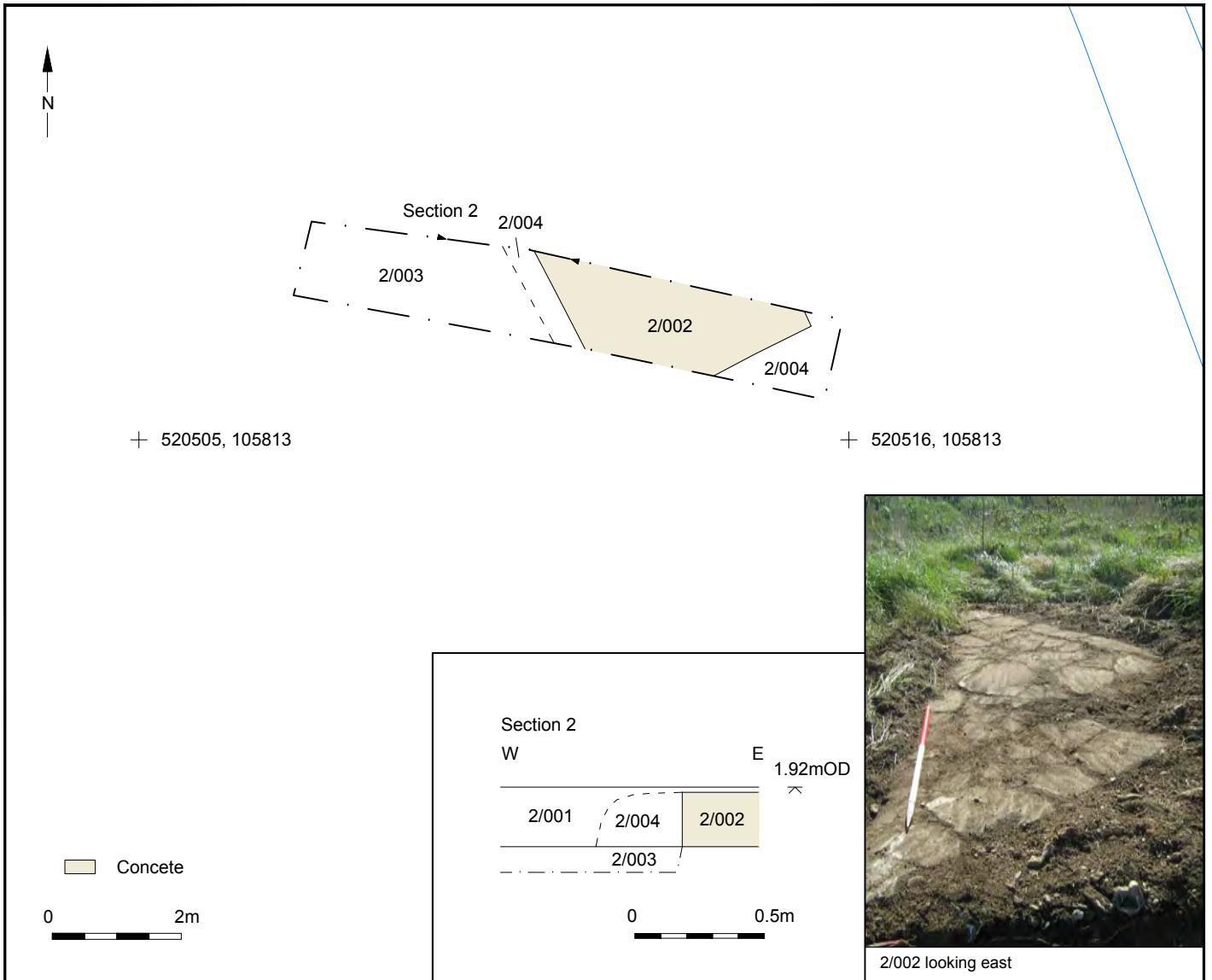
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© Archaeology South-East		Adur Tidal Walls, Shoreham		Fig. 2
Project Ref: 6833	May 2015	Location of trenches, boreholes and assessment area		
Report Ref: 2015162	Drawn by: JLR			

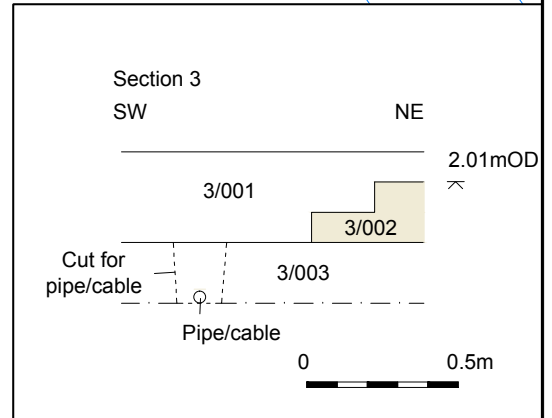
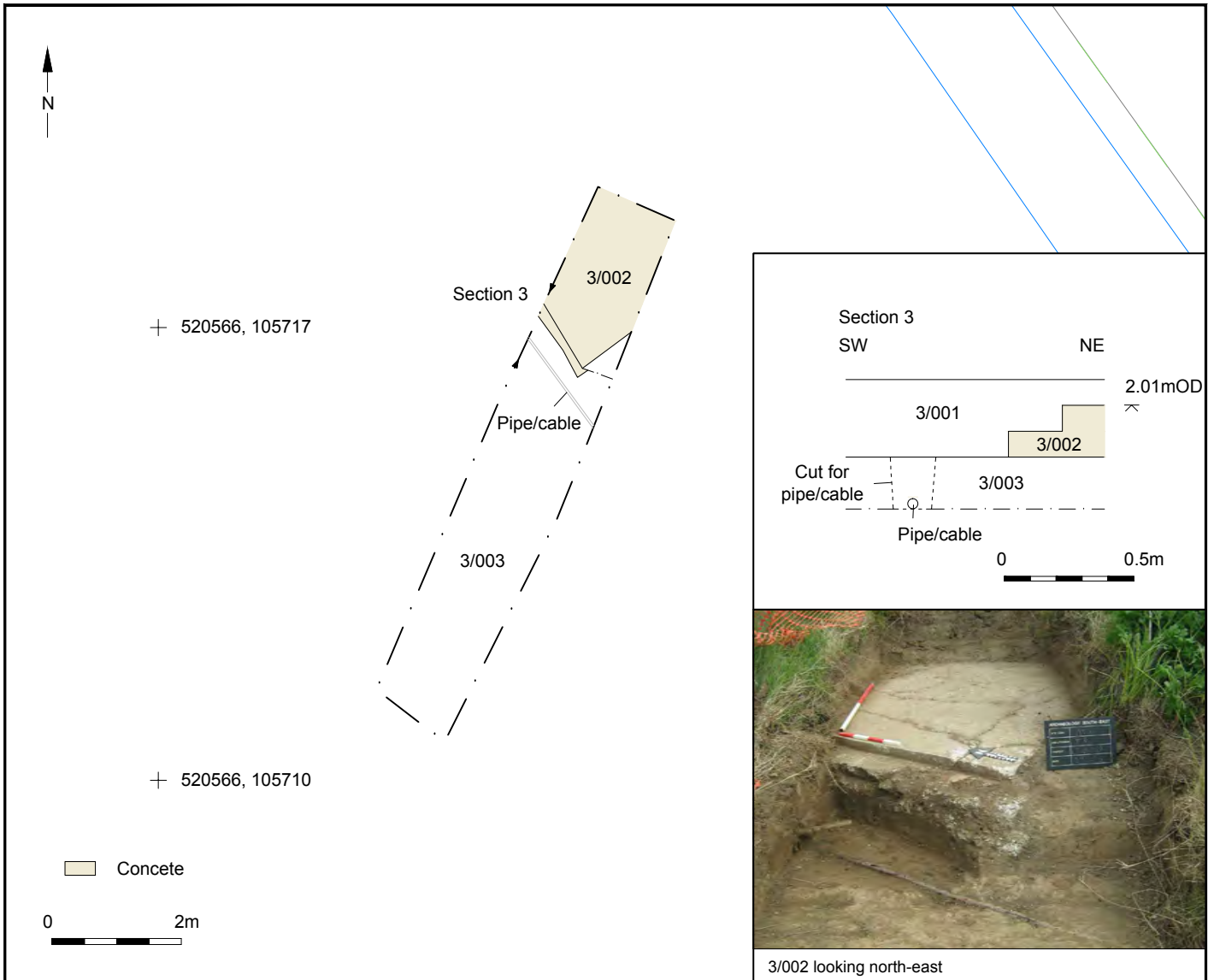


© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 3
Project Ref: 6833	May 2015	Trench 1: plan, section, photograph and 1946 aerial photograph	
Report Ref: 2015162	Drawn by: JLR		

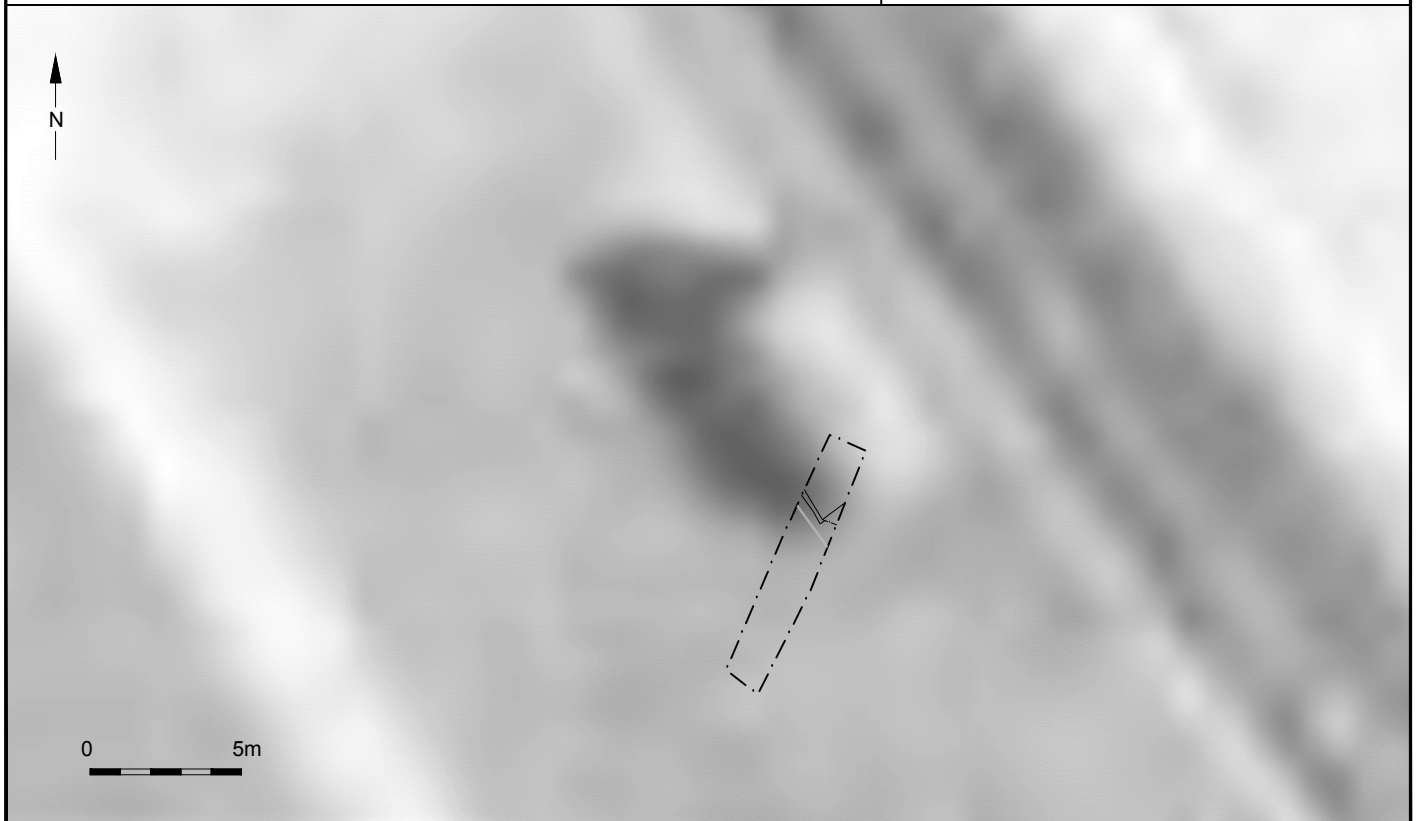




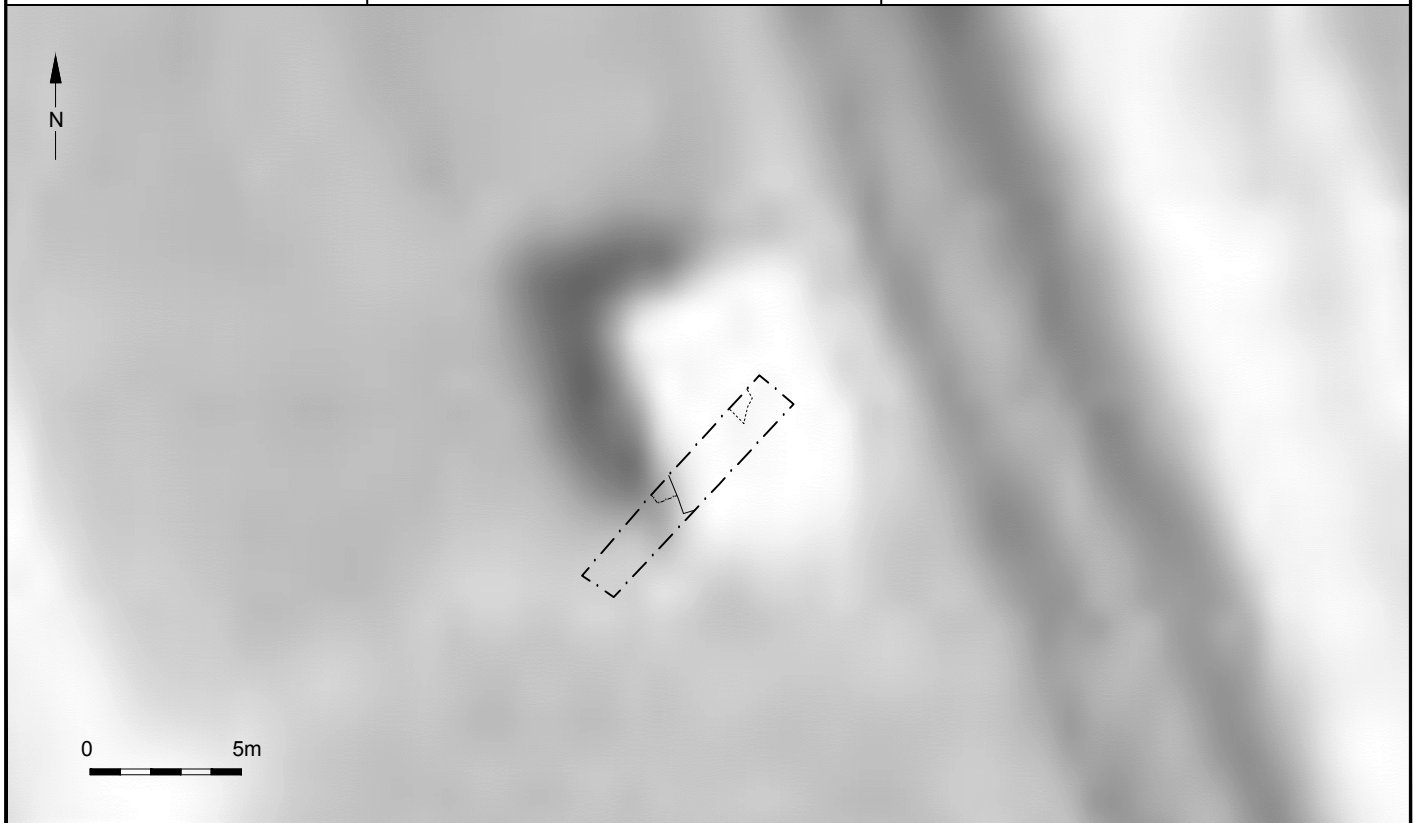
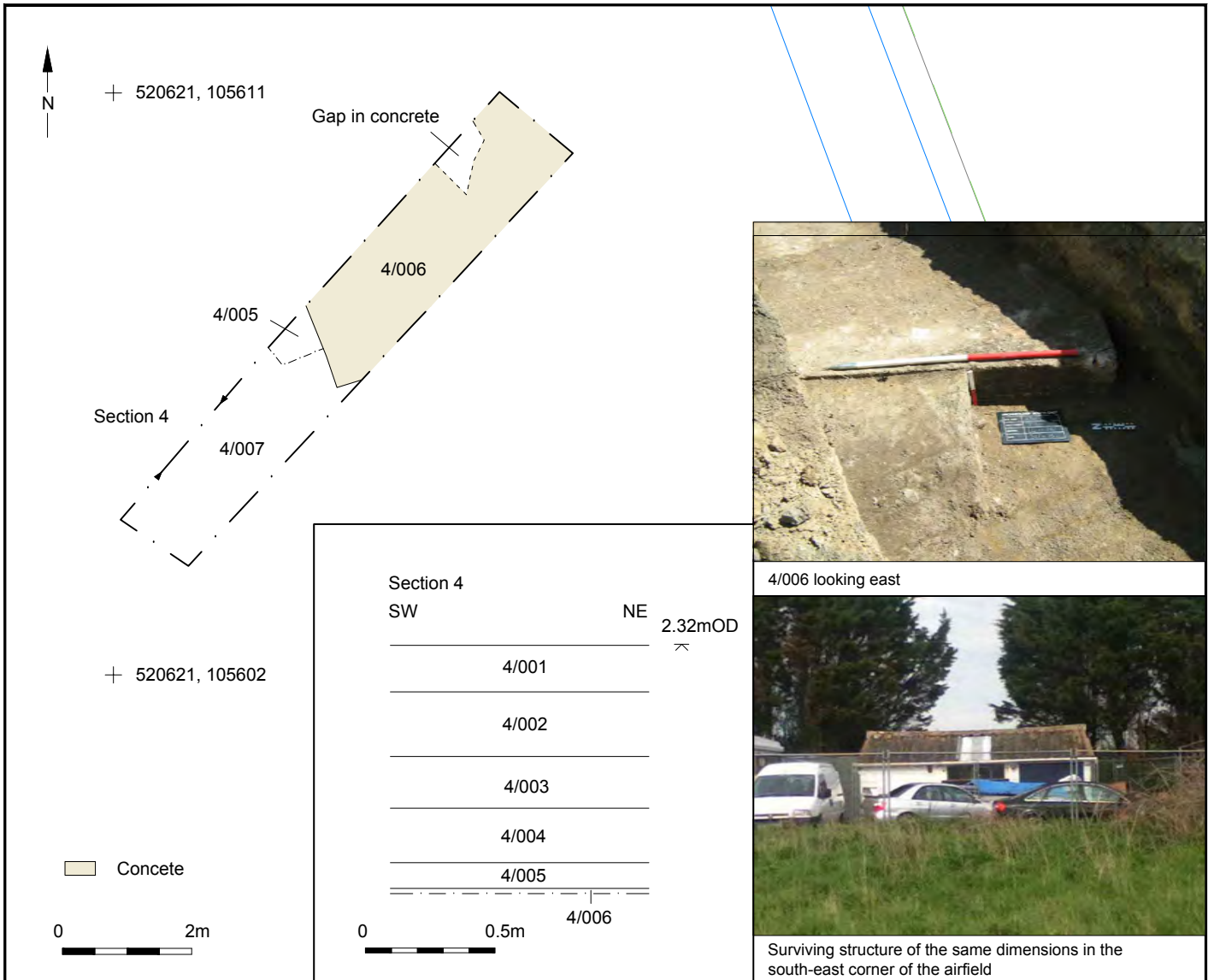
© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 4
Project Ref: 6833	May 2015	Trench 2: plan, photograph and 1946 aerial photograph	
Report Ref: 2015162	Drawn by: JLR		



3/002 looking north-east

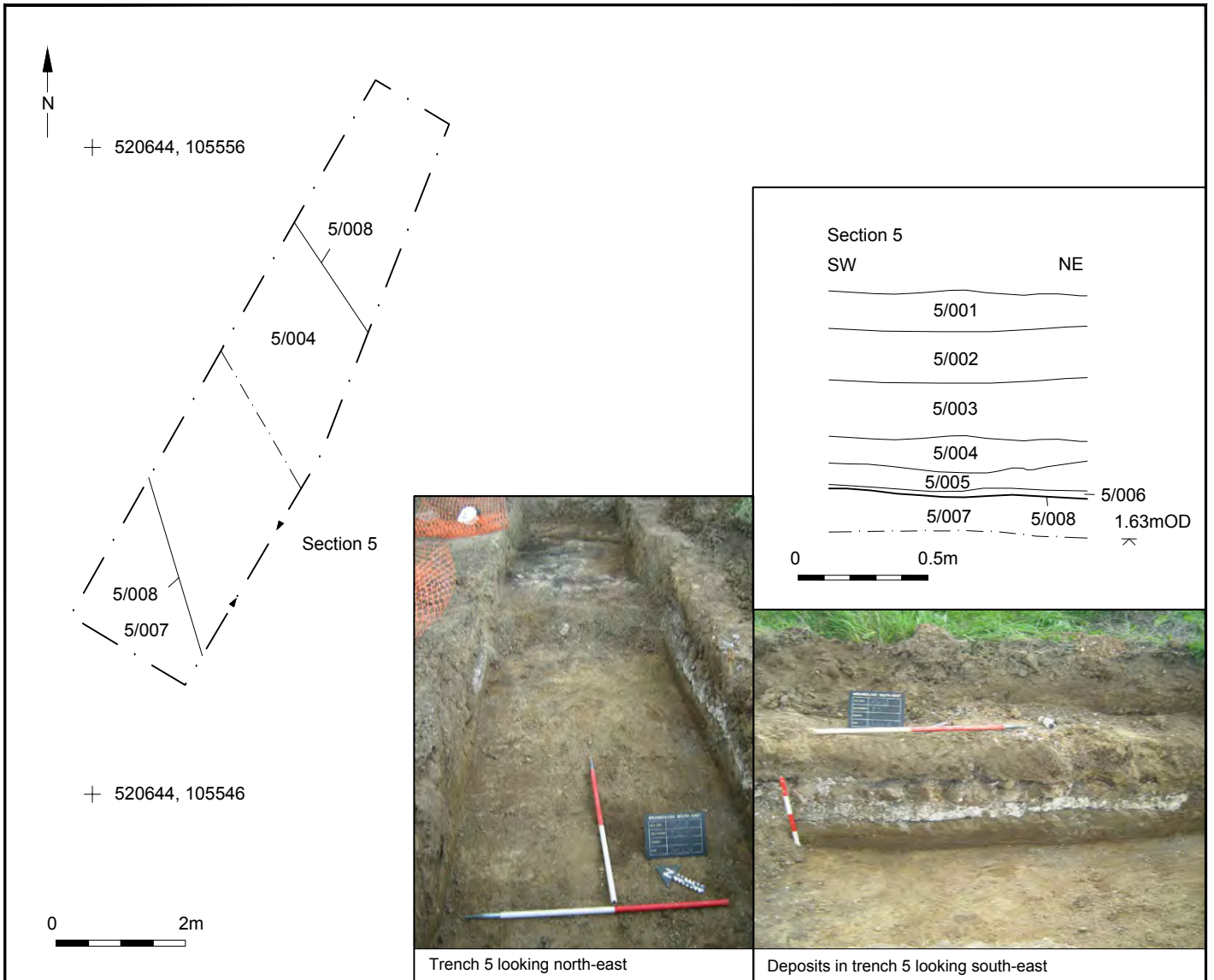


© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 5
Project Ref: 6833	May 2015	Trench 3: plan, photograph and 1946 aerial photograph	
Report Ref: 2015162	Drawn by: JLR		



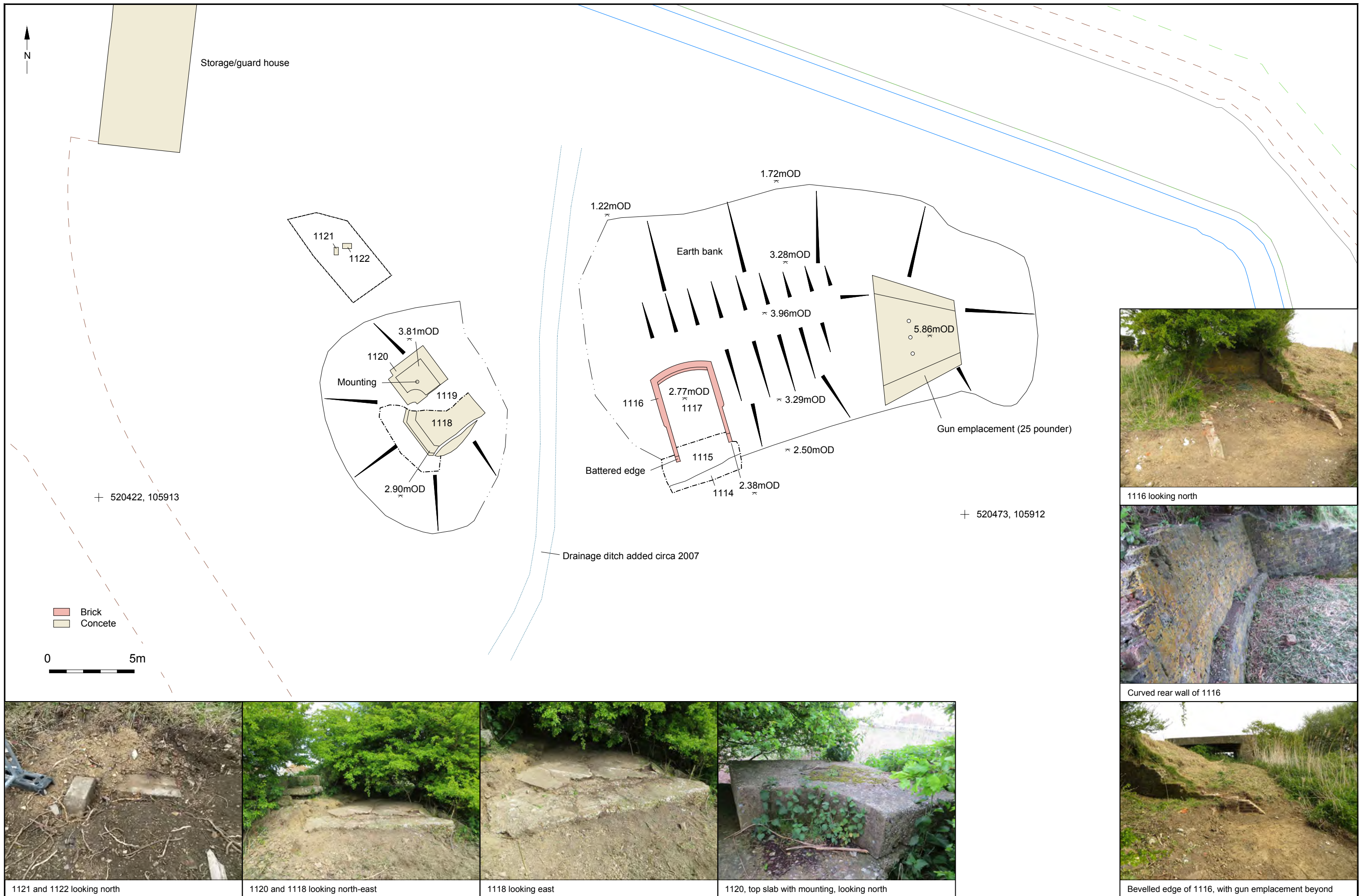
© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 6
Project Ref: 6833	May 2015	Trench 4: plan, photographs and 1946 aerial photograph	
Report Ref: 2015162	Drawn by: JLR		



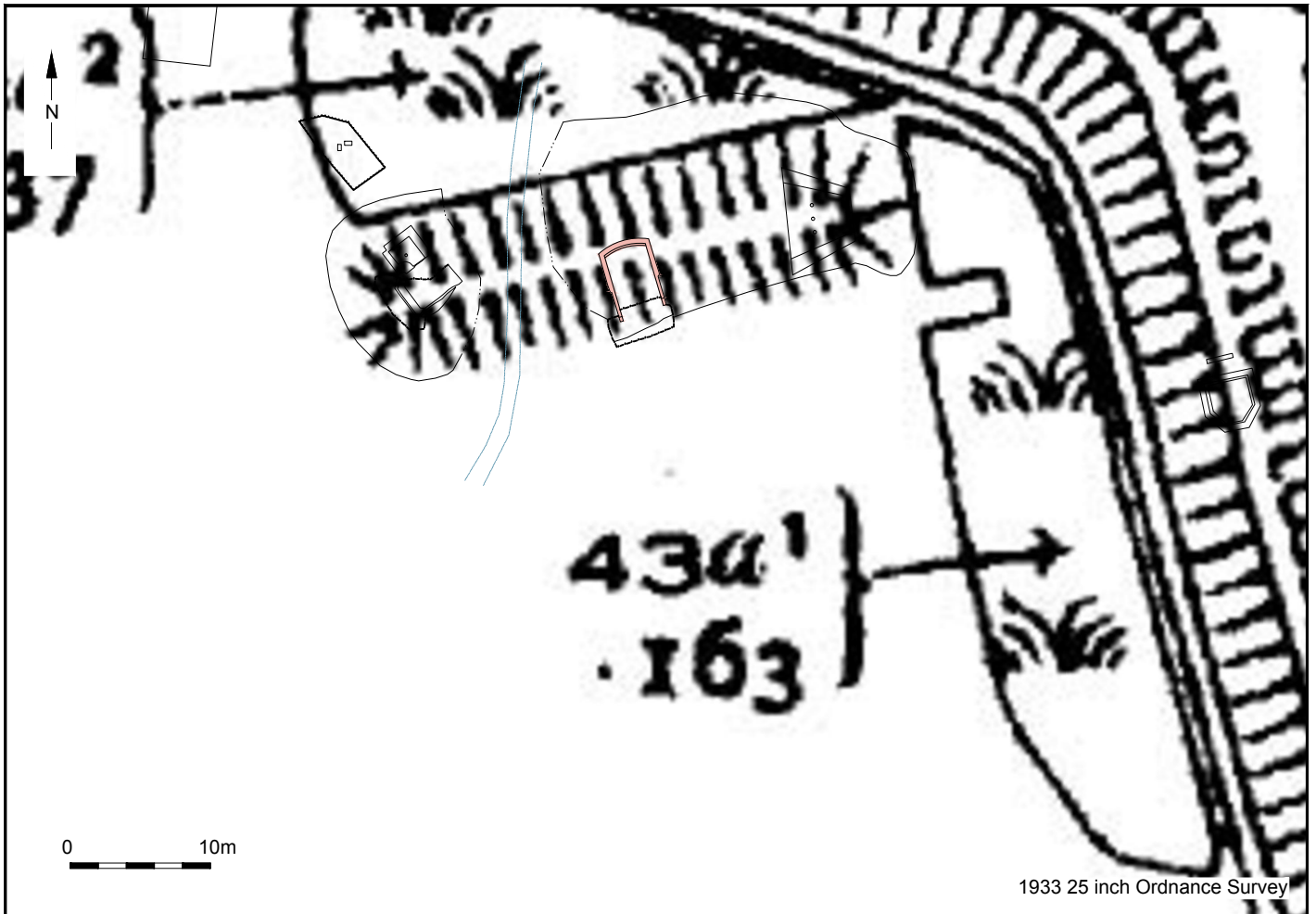


© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 7
Project Ref: 6833	May 2015	Trench 5: plan, section, photographs and 1946 aerial photograph	
Report Ref: 2015162	Drawn by: JLR		

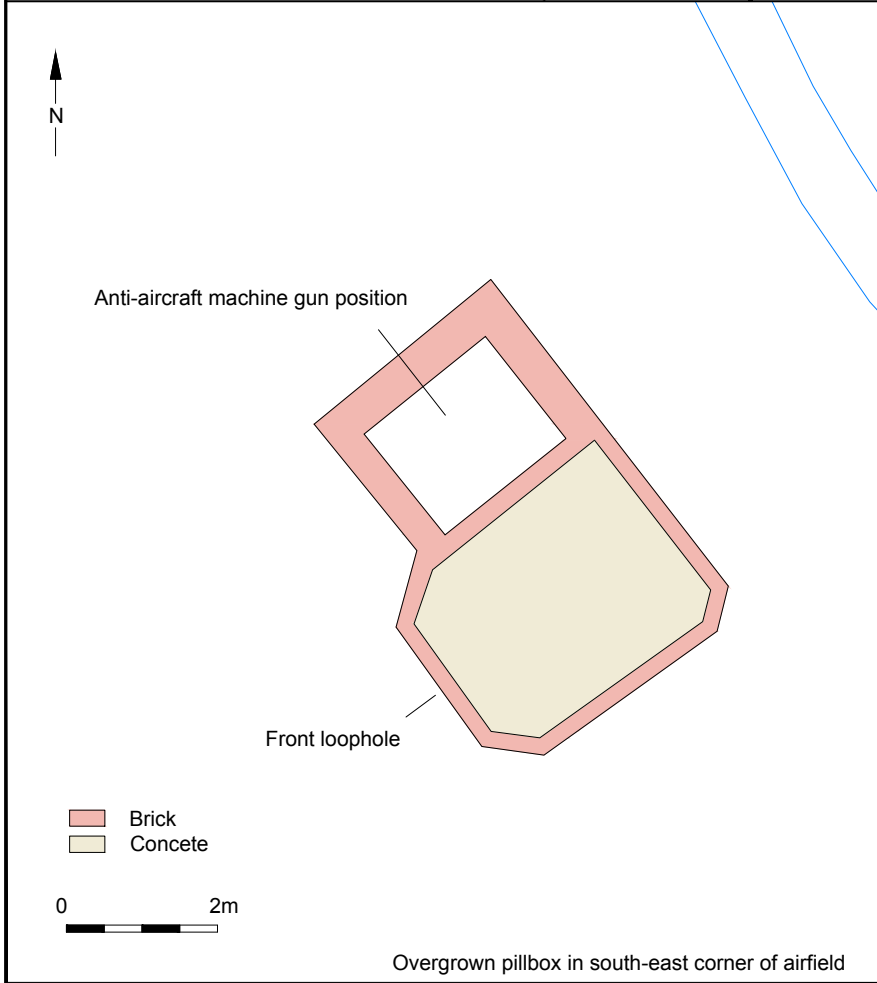
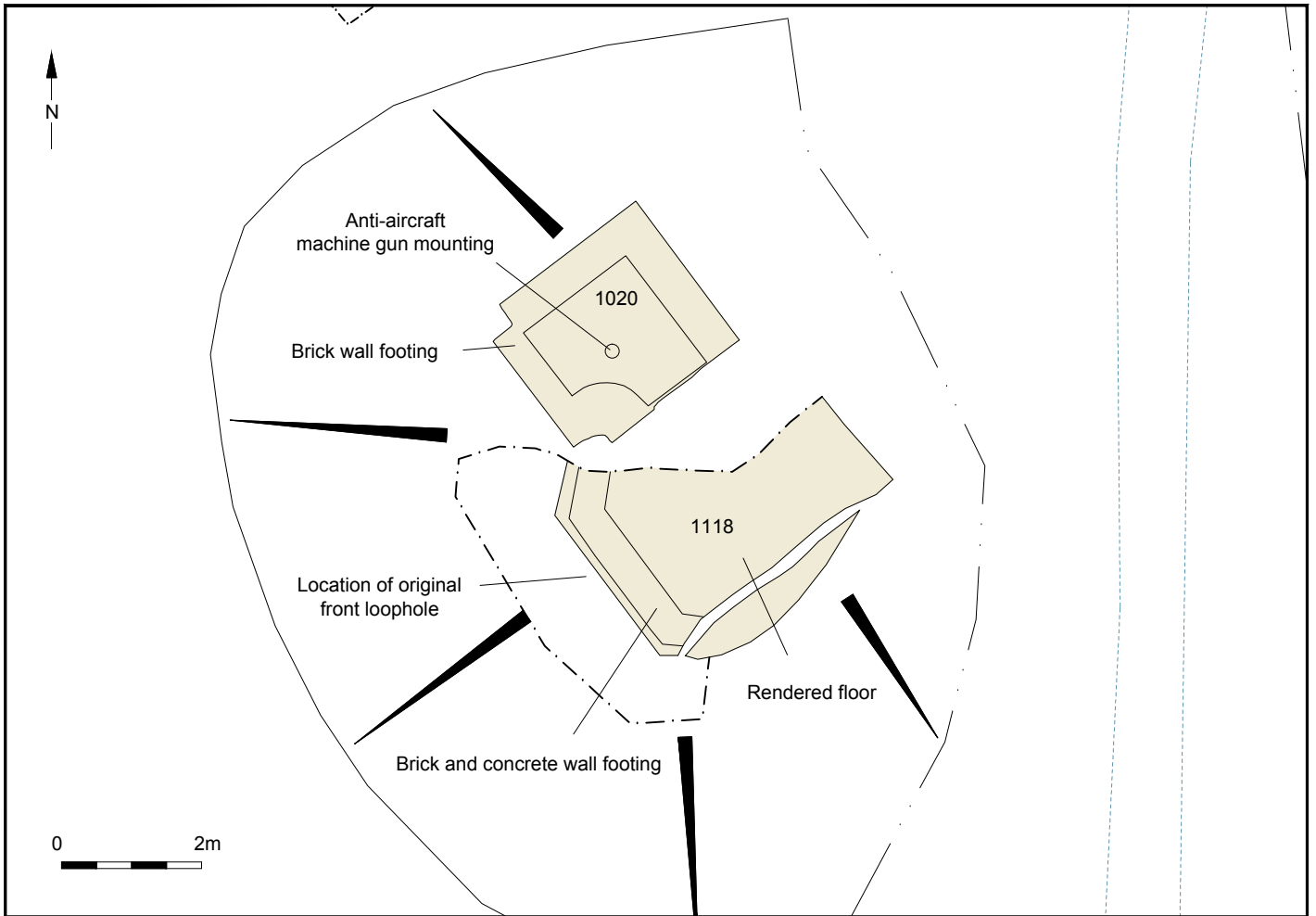








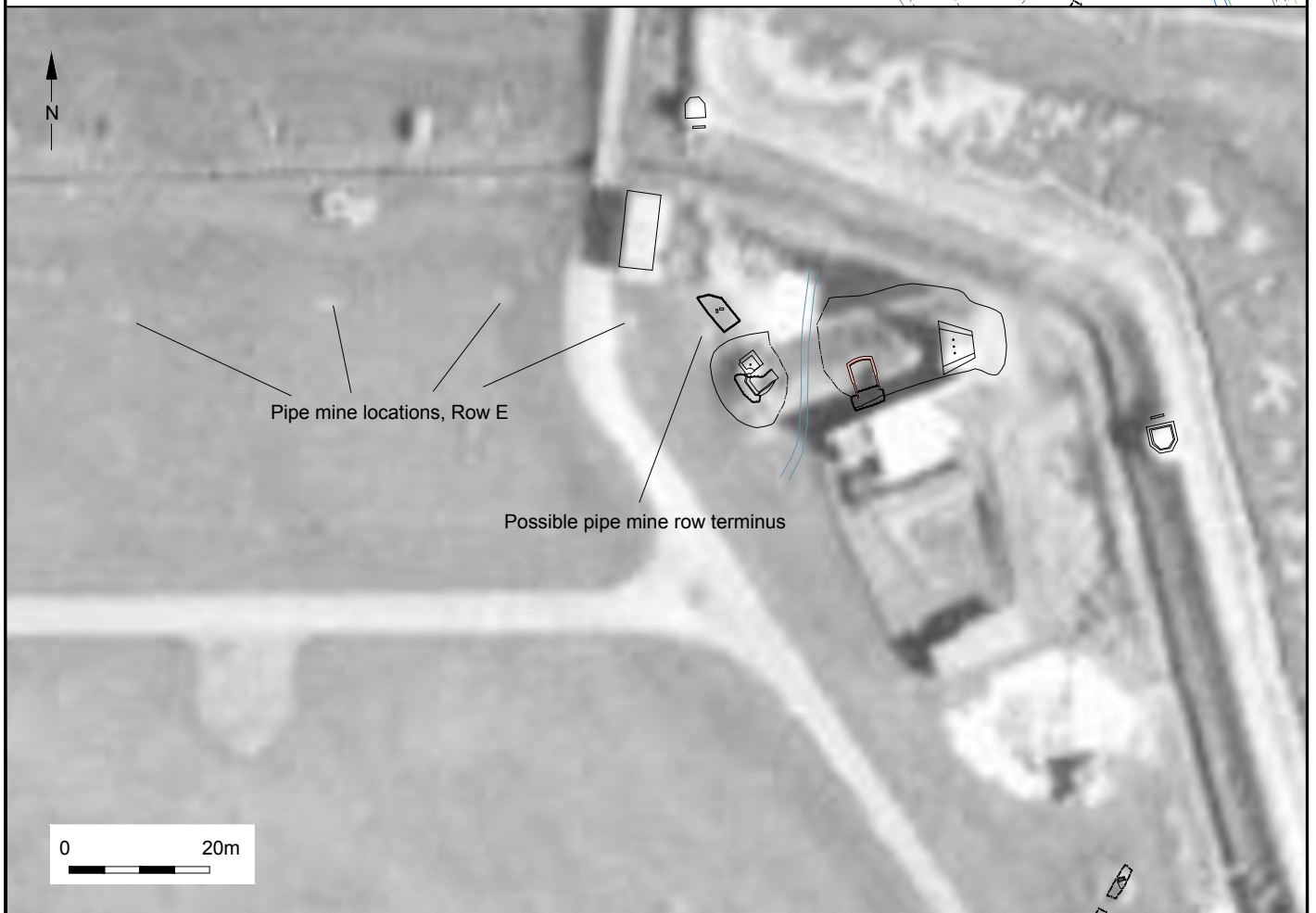
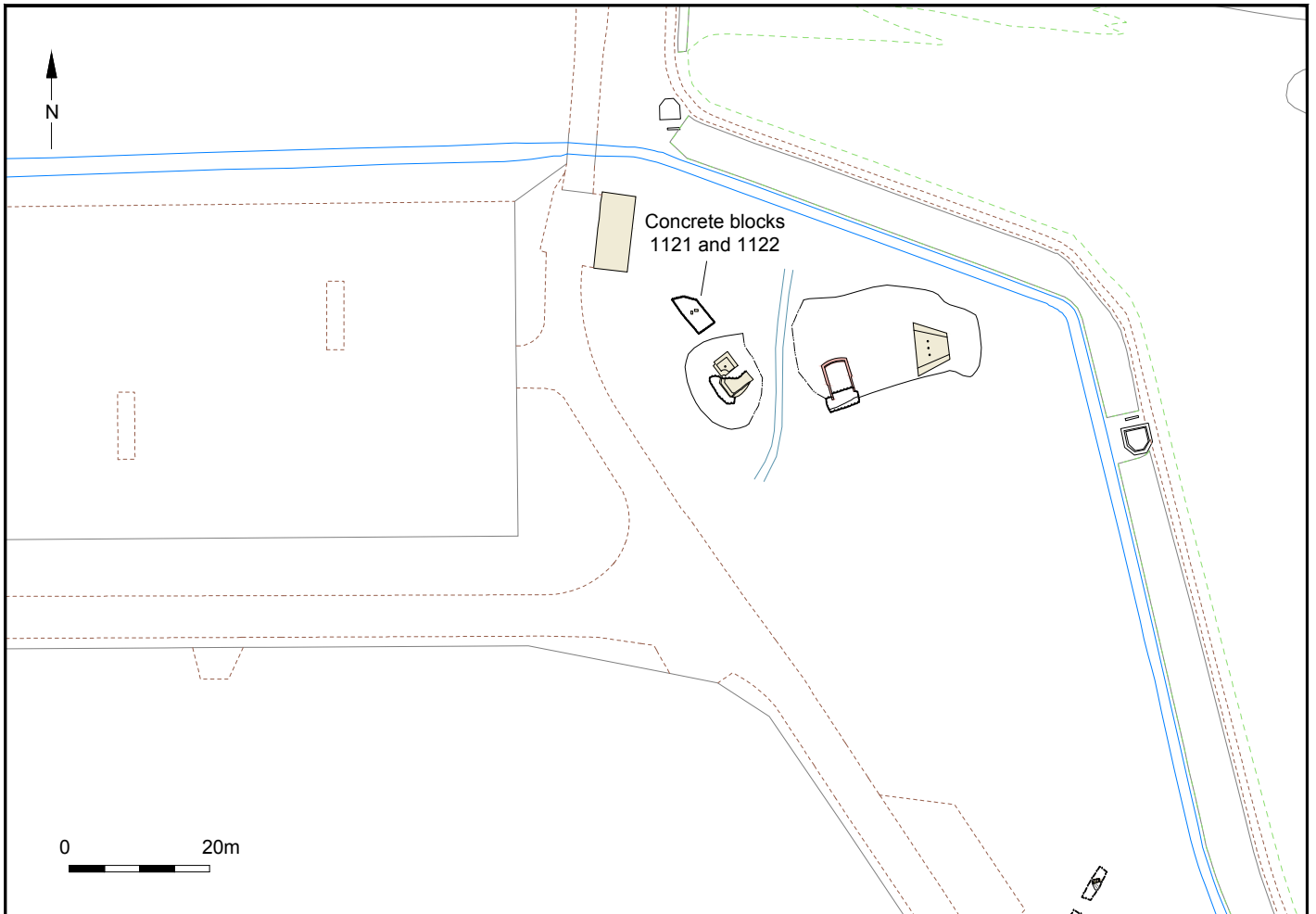
© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 9
Project Ref: 6833	May 2015	1933 and 1953 25 inch Ordnance Survey maps	
Report Ref: 2015162	Drawn by: JLR		



Overgrown pillbox in south-east corner of airfield

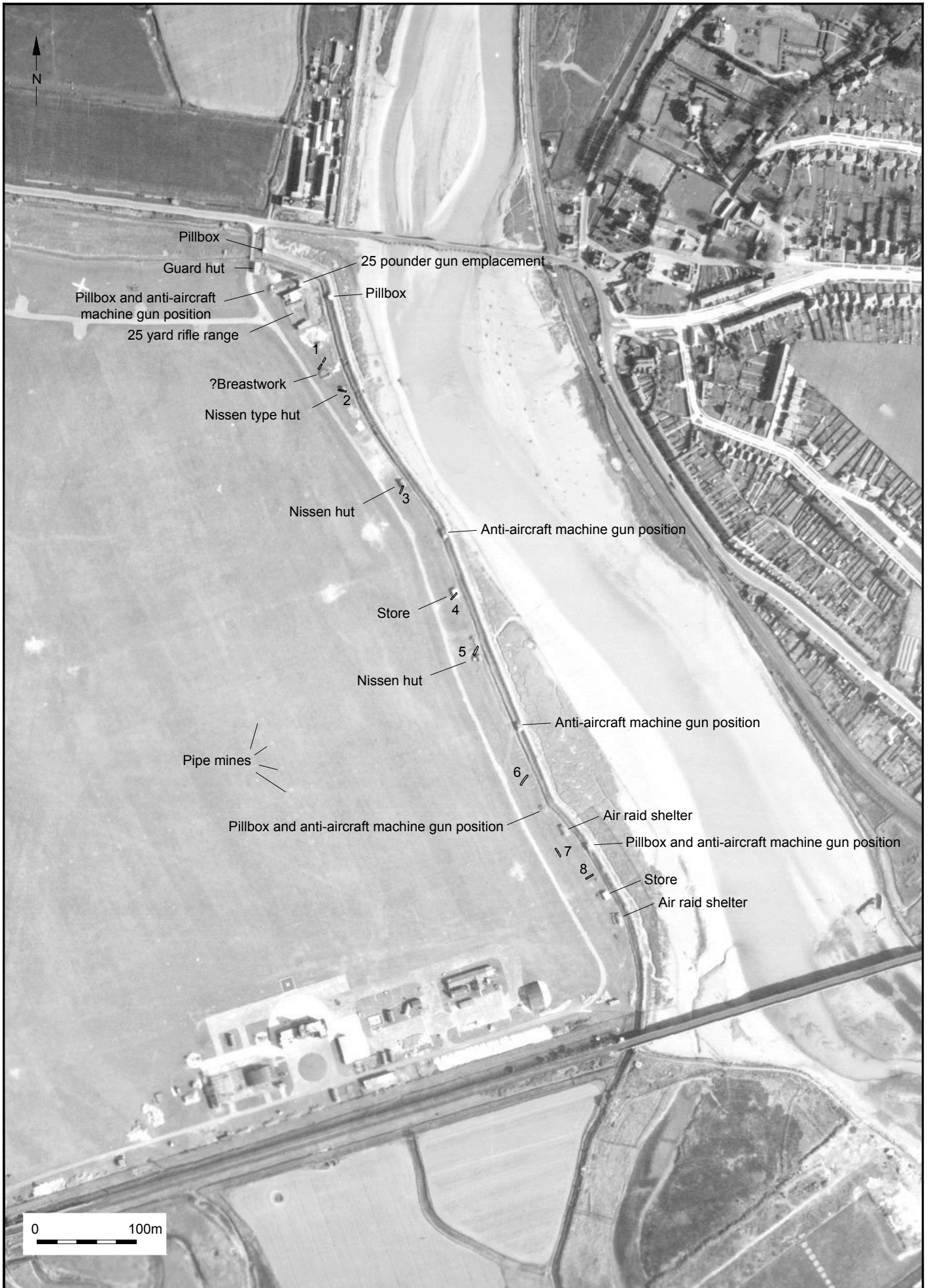


Anti-aircraft machine gun position adjacent to pillbox



© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 11
Project Ref: 6833	May 2015	Northern assessment area showing pipe mine locations	
Report Ref: 2015162	Drawn by: JLR		





© Archaeology South-East		Adur Tidal Walls, Shoreham	Fig. 12
Project Ref: 6833	May 2015	1946 aerial photograph showing location of trenches and structures on the western bank of the Adur	
Report Ref: 2015162	Drawn by: JLR		

**Sussex Office**

Units 1 & 2  
2 Chapel Place  
Portslade  
East Sussex BN41 1DR  
tel: +44(0)1273 426830  
email: [fau@ucl.ac.uk](mailto:fau@ucl.ac.uk)  
web: [www.archaeologyse.co.uk](http://www.archaeologyse.co.uk)

**Essex Office**

The Old Magistrates Court  
79 South Street  
Braintree  
Essex CM7 3QD  
tel: +44(0)1376 331470  
email: [fau@ucl.ac.uk](mailto:fau@ucl.ac.uk)  
web: [www.archaeologyse.co.uk](http://www.archaeologyse.co.uk)

**London Office**

Centre for Applied Archaeology  
UCL Institute of Archaeology  
31-34 Gordon Square  
London WC1H 0PY  
tel: +44(0)20 7679 4778  
email: [fau@ucl.ac.uk](mailto:fau@ucl.ac.uk)  
web: [www.ucl.ac.uk/caa](http://www.ucl.ac.uk/caa)

