

**A survey of a group of air-raid shelters at
Area C2 of the Garrison Urban Village,
Napier Road, Colchester, Essex
April-May 2004**

**report prepared by
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**commissioned by
RPS Planning, Transport and Environment
on behalf of
Taylor Woodrow**

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1 Summary

This is the archive report on a survey of a group of World War 2 air-raid shelters at Area C2 of the Garrison Urban Village at Napier Road, Colchester, Essex. This work was carried out by the Colchester Archaeological Trust prior to an archaeological evaluation and excavation of areas of alienated land, acquired by Taylor Woodrow for residential development.

2 Introduction (Figs 1-2)

- 2.1 The proposed development of the alienated land at Colchester Garrison involves the redevelopment, primarily for residential use, of areas of the present Garrison and adjacent farmland, which were formerly owned by the MoD. The construction of the new garrison over the next three years will allow a phased decanting of the existing Garrison personnel into the new garrison, thus facilitating phased release of areas of the former Garrison for redevelopment.
- 2.2 In order to facilitate the proposed redevelopment, five single-storey modern buildings and two WW2 air-raid shelters were demolished between Napier Road and Circular Road East. The archaeological survey of the air raid shelters was commissioned by RPS Planning, Transport and Environment (RPS) on behalf of Taylor Woodrow and was carried out by the Colchester Archaeological Trust (CAT) under RPS project management. The project was monitored by the Colchester Borough Council Archaeological Officer (CBCAO) and RPS.
- 2.3 Area C2 is centred on NGR TL 9975 2447. It occupies a 0.68ha triangular area in the angle of Napier Road and Circular Road East, to the south of Flagstaff House. The area was partly grassed and partly under tarmac.
- 2.4 Drift geology of the area is predominantly sands and gravel. This is occasionally in a clay matrix, and is sometimes capped by cover loam.

3 Aims and objectives

The aim of the surveys was to record the two air-raid shelters before demolition, including their internal and external features.

4 Archaeological background

- 4.1 Map evidence suggests that this area was farmland in the 17th and 18th centuries. The triangular plot was defined by at least 1876, with the area shown as open ground with trees on the OS 1st edition of 1874-1876 and the OS 2nd edition of 1893-c 1904. The area appears to contain a single structure by 1921, but was still largely open ground. An MoD map of 1949 (see 1949 map, fig 35 of CAT Report 97) shows the area now heavily built over with four structures (Army Welfare Offices) dominating Area C2, but the remainder of the area is shown as open ground (CAT Report 97).
- 4.2 The present Garrison was built from 1855, with the first permanent barracks being constructed in the 1860s. To the south is the Garrison cricket ground, and to the west the Arena Leisure Centre, formerly the NAAFI. To the north is Flagstaff House (currently Army offices). (See CAT Report 97 for more details.)

5 Methods (Fig 2)

- 5.1 Five single-storey buildings (buildings 1-5) were demolished and the shallow concrete pad foundations were removed by a mechanical excavator. A CAT archaeologist

monitored this work and inspected the raft trenches for evidence of Roman burials or other archaeological features. This resulted in the recording of air-raid shelter 4. One upstanding air-raid shelter (shelter 1) was surveyed by hand and using a Total Station and another upstanding air-raid shelter (shelter 2) was recorded photographically prior to their demolition. The work was carried out in April-May 2004. A photographic record was made of air-raid shelters 1 and 2 using a digital camera and a transparency camera.

6 Results (Figs 1-6 and Plates 1-7)

6.1 Air-raid shelter 1 (Figs 1-6 and Plates 1-6)

This shelter is referred to as CF1 in the later excavation report (CAT report in prep). The initial impression was of a long, low earthen mound (approx 7m x 11m) with concrete walls and entrance ways visible at either end. The south-west entrance was made inaccessible by a concrete cover, but access was possible through the north-east entrance down a flight of six concrete steps. Extensive photography of the exterior and interior was undertaken, and hand-drawn plans were made. A Total Station survey was undertaken which produced a plan showing:

- the extent of the grass-covered mound
- the top of the grass-covered mound
- the two entrances
- a contemporary slab pathway leading to the north-east entrance
- the only surviving sub-surface exhaust vent.

Longitudinal and latitudinal profiles of the mound were also obtained by the Total Station.

The mound stood approximately 1.2m above modern ground-level at its highest point and was partially obscured on the western side by a mature horse chestnut tree. A slab pathway made of 600mm x 600mm slabs was laid at an angle to the north-east entrance. Access to the shelter was down the flight of six steps on the north-eastern side, into a short corridor. Directly ahead was a recessed alcove (approx 870mm deep by 1m wide) with a centrally positioned circular hole (100mm in diameter) in the roof. This is interpreted as either an air vent or an exhaust vent for waste gases.

To the left of the corridor was a wooden door (720mm x 1.97m) set into a dividing wall and opening in towards the corridor. The external face of the door was 80% covered by a metal plate which was attached to the door with screws, and painted white. A simple curved iron latch was affixed to the left-hand side of the door approximately one quarter of the way down. The door was supported on two hinges, each 300mm from top and bottom, screwed directly into the concrete wall. A painted square divided into two red and one blue upright bars with the letters 'S3 COY (U)' above it was positioned in the centre of the door at the same height as the handle.

Upon opening, it was clear that the door was set into a recess so that it could not be opened or blown into the chamber by an explosion. The internal face of the door was painted off-white and had a replacement panel covering the lower left-hand quarter. The upper part of the door was covered by an A2 paper poster held in place by masking tape. On this was printed, in upper case:

MILITARY NOTICE
NO SMOKING
NO FIRES

Whilst the type-face suggested that this was contemporary with the air-raid shelter, there is a strong possibility that the door is a later addition to seal the bunker and that originally the internal entrance was either open or sealed by another type of door.

The interior was a sub-circular chamber, 7.38m long, of white painted concrete. At its widest point, the chamber measured 2.24m and at the base it was 1.68m wide. Construction evidence of shuttering could clearly be seen. It would appear that an internal frame of angled planks was constructed inside a larger box and the void filled with concrete. This produced distinct panels of concrete – 18 facets in all – around the circumference of the chamber. Evidence for this can also be seen in the exposed south-west facing section of the external structure, where recesses in the concrete can clearly be seen, as can the remains of plank shuttering. The floor of the chamber was concrete. A line of twelve concrete slabs (each 600mm x 600mm) extended down the centre of the chamber between the two doorways. Beneath these slabs was a channel, 180mm deep by 460mm wide, and lined with wood, which was divided into five sections.

A light switch was located to the west of the internal doorway with a metal-cased wire leading up the wall and along the chamber roof to a centrally mounted bayonet light fitting. It was uncertain if this was contemporary with the air-raid shelter's construction. Four more of the exhaust vents were located in the roof. The whole structure, with the central chamber and two sets of stairs at either end, displayed an inverse symmetry in construction, as shown by the plan.



Plate 1 South-western corner of air-raid shelter 1, looking east, with air-raid shelter 2 in the background.



Plate 2 Air-raid shelter 1: north-eastern entrance, looking west, with former Army Radio offices in the background.



Plate 3 Air-raid shelter 1: north-eastern entrance, looking west.



Plate 4 Air-raid shelter 1: shuttering detail at south-western end, looking north.



Plate 5 Air-raid shelter 1: internal view, looking north-north-east towards door.

6.3 Air-raid shelter 2 (Figs 1-2, Plates 1 and 6)

The exterior of this shelter (CF2 in later excavation: CAT report in prep) was planned using a Total Station. It was photographed during demolition. The 1949 map depicts this shelter, which appears to have been identical in design to air-raid shelter 1.



Plate 6 Air-raid shelter 2: south-western end during demolition, looking north-north-east.

6.4 Air-raid shelter 3 (Fig 2 and Plate 7)

Air-raid shelter 3 is still in existence and can be seen near Napier Road, as a grass mound. It is depicted on the 1949 map with air-raid shelters 1 and 2 and appears to be identical to them.



Plate 7 Air-raid shelter 3, with cricket pavilion in the background, looking south-east.

6.5 Air-raid shelter 4 (Fig 2)

Five buildings were demolished and their concrete slab foundations removed. These buildings ('AWO offices') feature on a 1949 map of the Garrison and are thought to date to around that time (fig 35 of CAT Report 97). The removal of the concrete slab foundations left trenches of between 300mm and 800mm depth. Building 3 was found to have been built on top of an air-raid shelter (air-raid shelter 4); therefore a hole 1.3m deep was dug to remove the remains. Air-raid shelter 4 was not seen by the CAT archaeologist as it had already been removed by the time of the monitoring visit. Between 750mm and 800mm of topsoil (L2 and L3) was recorded. In areas dug deeper than 700-800mm below ground-level, a light brown clayey silty sand with patches of orange sand was encountered (L4). Excepting air-raid shelter 4, no features of archaeological interest were recorded.

6.6 Air-raid shelters 5 and 6 (Fig 2 and Plate 8)

After the demolition of the air-raid shelters and other buildings, and during the archaeological excavation of this area in 2004 (CAT report in prep), two further air-raid shelters were recorded. These are air-raid shelter 5 (CF104: CAT report in prep) and air-raid shelter 6 (CF103: CAT report in prep). These shelters had already been destroyed above ground, and therefore were not visible during the watching brief stage. What was left of their ground-plans was planned with a Total Station before they were covered over. Air-raid shelters 5 and 6 appeared to be linked by a communication trench (CF118: CAT report in prep) which 'dog-legged' at right-angles. This trench was 600mm wide and 300mm deep. On closer inspection, CF118 did not link up directly to air-raid shelter 6. Therefore it may be an earlier feature, such as a military practice trench, which had already been filled in by the time of WW2. CF125 may also have been a practice trench. Air-raid shelters 5 and 6 appear to have been similar in shape and layout to air-raid shelter 1. Neither of them appear on the 1949 map, so they had presumably both been built over by that time.



Plate 8 Aerial photograph of site, showing air-raid shelters 5 (below) and 6 (above); CF125 is visible to the right of air-raid shelter 5.

7 Discussion

There were six WW2 air-raid shelters in Area C2. Two shelters were surveyed prior to demolition; five buildings were demolished, and the watching brief on their site produced evidence of one shelter; one shelter is still standing; and two further shelters were recorded during the later excavation. It is not possible to comment on air-raid shelter 4. Air-raid shelters 1-3 and 5 appear to have been built at the same time, during WW2, of a standard design. Air-raid shelter 6 is a slightly different shape but basically still the same design.

These shelters could be ammunition stores although they were apparently designed to withstand explosions from outside. There was no evidence of seating or beds inside these structures. There are other air-raid shelters along Mersea Road opposite Hyderabad and Meanee Barracks which still survive, and there were others, south of Ypres Road (removed) and north of Poperinghe Road (not visible above ground). During an evaluation in Roman Barracks in 2002, underground shelters made of corrugated steel were recorded (CAT Report 271).

The trenches CF118 and CF125 could either have been communication trenches linking air-raid shelters 5 and 6, or alternatively they could have been earlier military practice trenches. In the absence of dating evidence, it is not possible to determine whether they date to WW1 or WW2.

It is expected that the design and function of the air-raid shelters will be discussed as part of a later study which is to include more air-raid shelters due to be affected by redevelopment elsewhere in the Garrison.

8 Acknowledgements

The project was commissioned and funded by Taylor Woodrow. The project consultants were RPS. The project was monitored by the CBCAO. RPS provided EOD cover.

The watching brief was carried out by Kate Orr and the survey was carried out by Chris Lister and David Ross of CAT.

9 References

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|--------------------|--|
| CAT Report 97 | An archaeological desk-based assessment of the Colchester Garrison PFI site, unpublished CAT archive report, by Kate Orr, 2000 |
| CAT Report 271 | An archaeological evaluation by trial-trenching at Area C1X and Area C2X of the Garrison Urban Village, Colchester, Essex, unpublished CAT archive report, by Kate Orr, 2004 |
| CAT report in prep | An archaeological excavation of Garrison Urban Village Areas C1, C2 and J |

10 Glossary and abbreviations

AOD	above Ordnance Datum
CBCAO	Colchester Borough Council Archaeology Officer
context	specific location on an excavation, especially one where finds are concerned
EHER	Essex Historic Environment Record, held by Essex County Council
EOD	Explosive Ordnance Disposal
extra-mural	outside the town walls
modern	later 19th and 20th centuries
NGR	National Grid Reference
post-medieval	after Henry VIII and to the end of the 19th century
Roman	the period from AD 43 to c AD 430
RPS	RPS Planning, Transport and Environment
Anglo-Saxon	the period from c AD 430 to AD 1066
UAD	Urban Archaeological Database, held by Colchester Museums

11 Archive deposition

The paper and digital archive are held by the Colchester Archaeological Trust at 12 Lexden Road, Colchester, Essex CO3 3NF, but both will be permanently deposited with Colchester Museums under accession code 2004.295.

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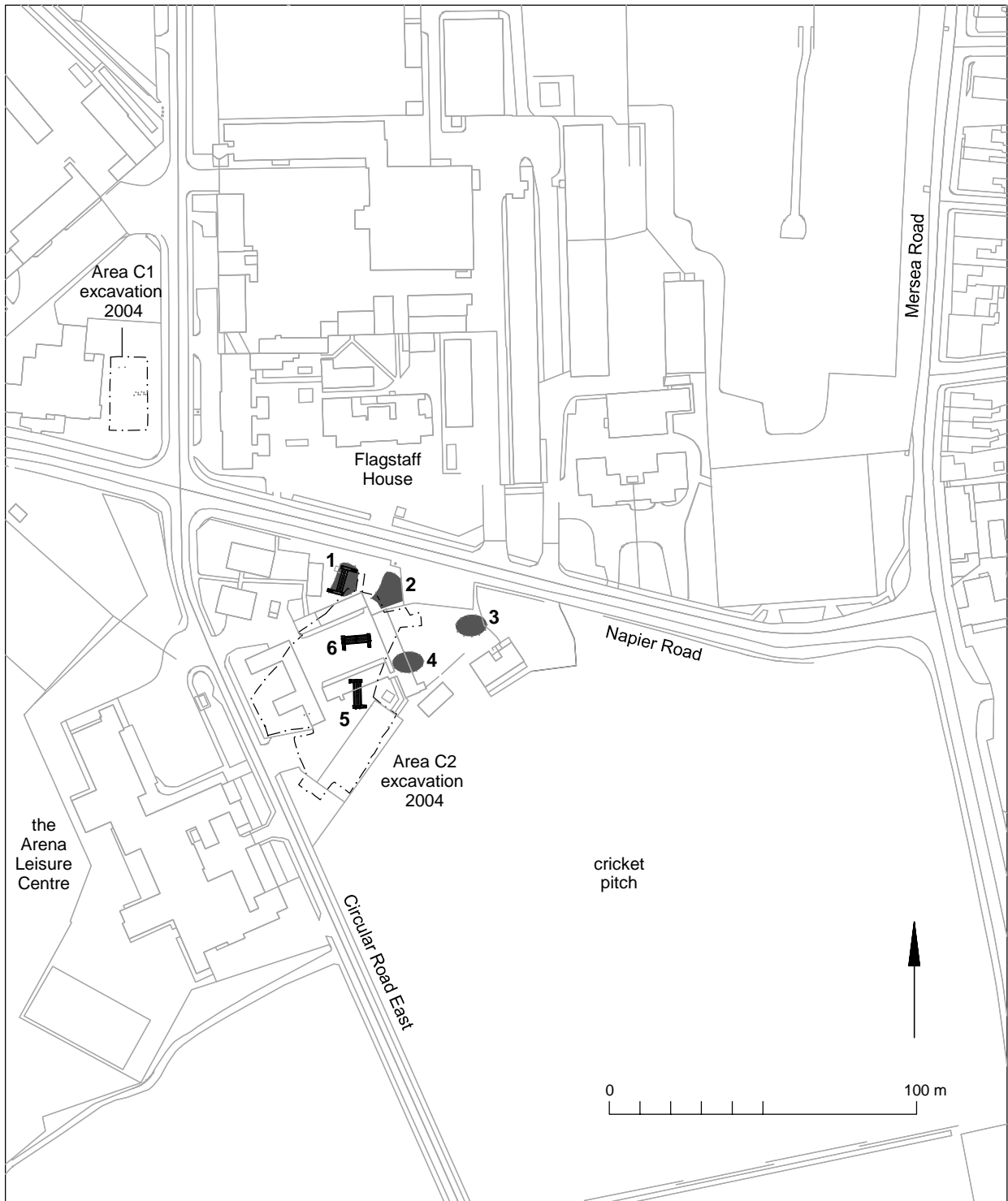


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Fig 1 Location plan, showing air-raid shelters 1-6.

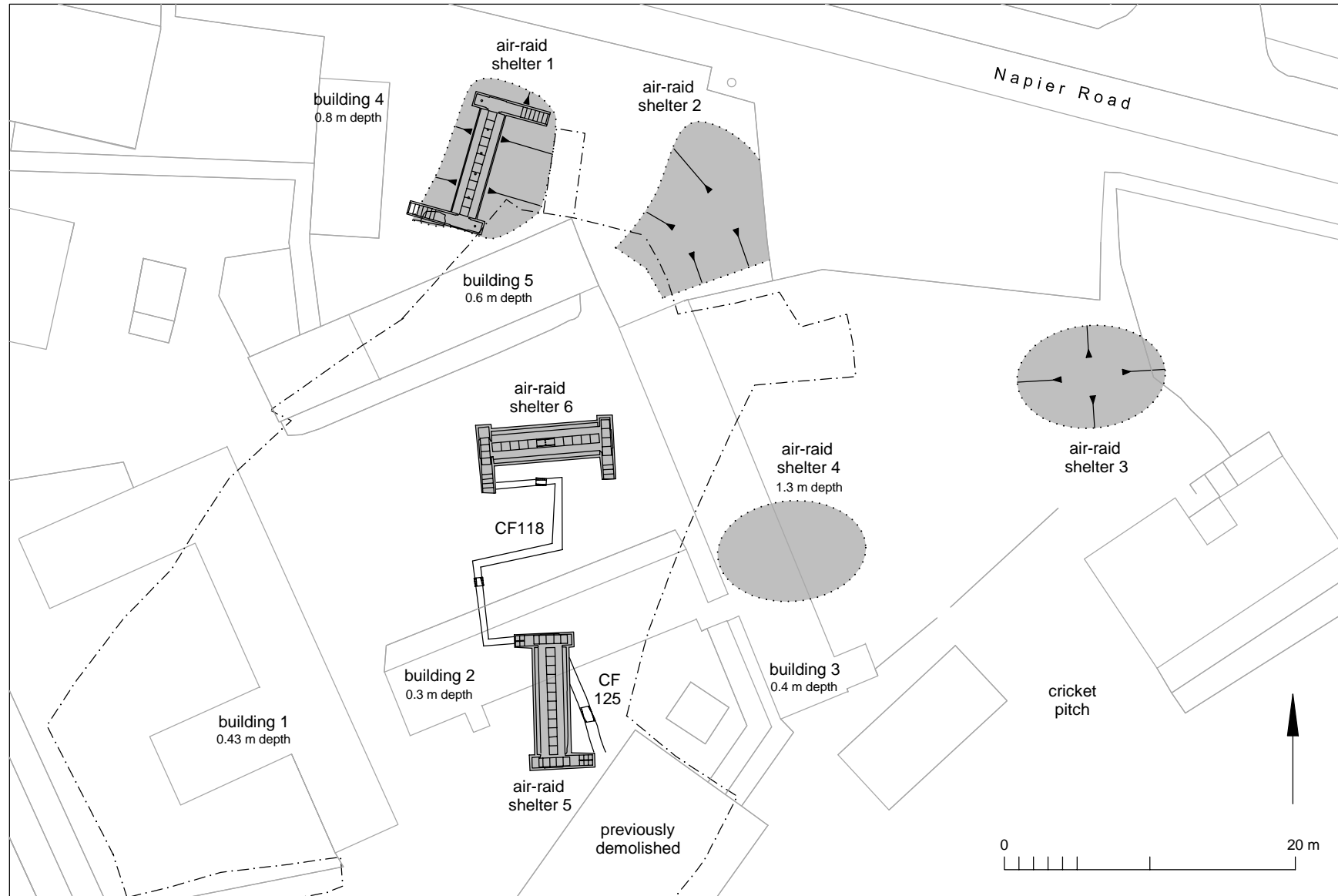


Fig 2 Plan of site, showing air-raid shelters and depths of demolished building foundations.

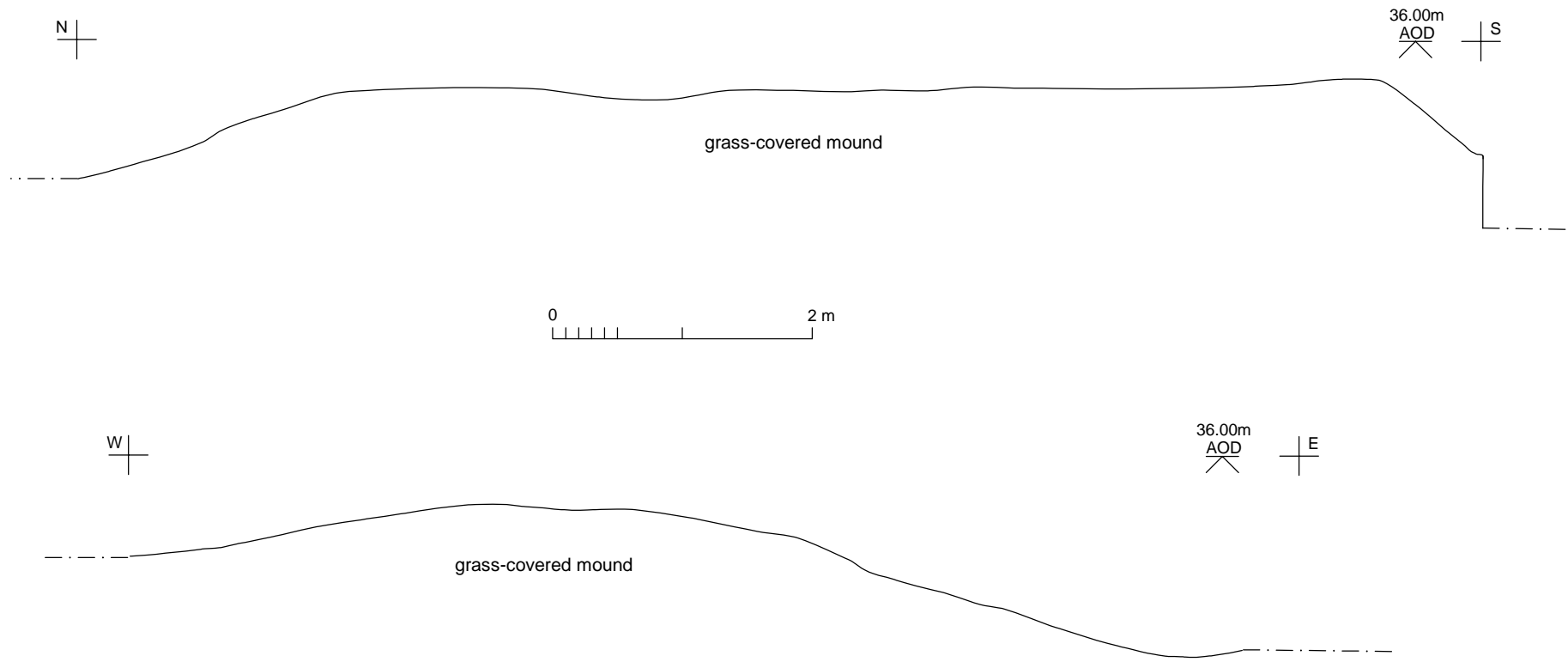


Fig 3 Air-raid shelter 1: north to south profile and east to west profile of the exterior.

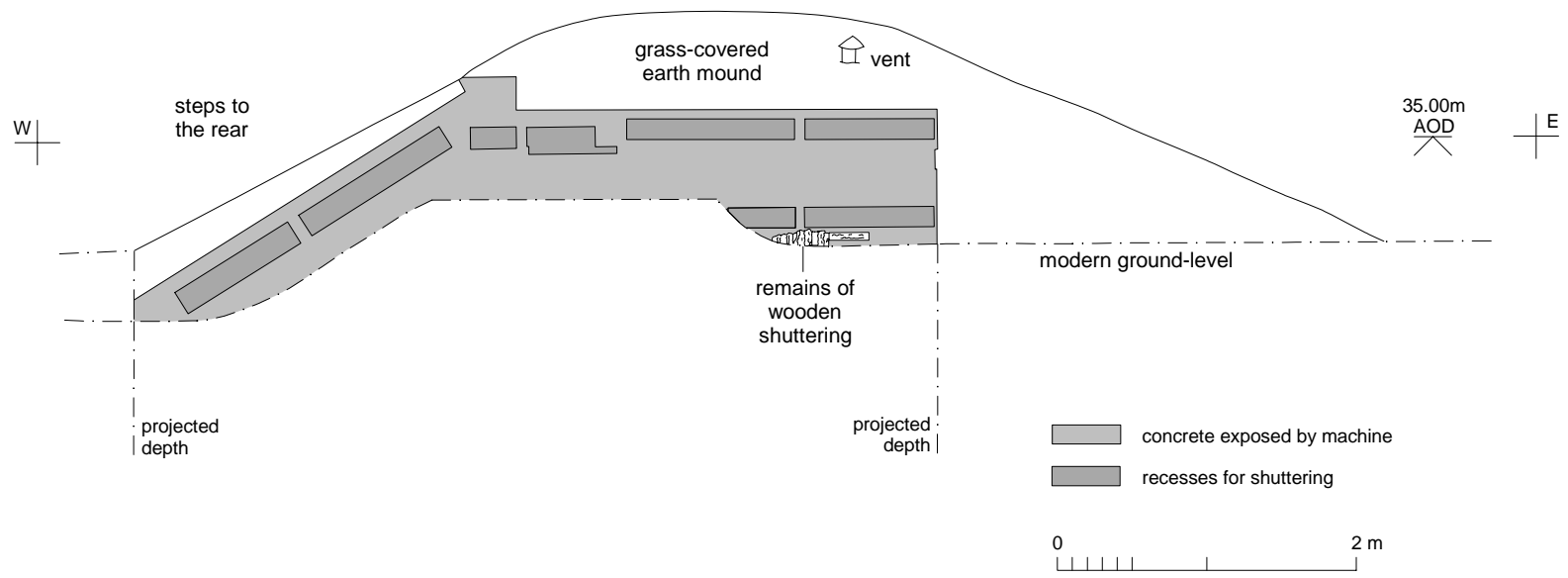


Fig 4 Air-raid shelter 1: section across the exterior of the southern end.

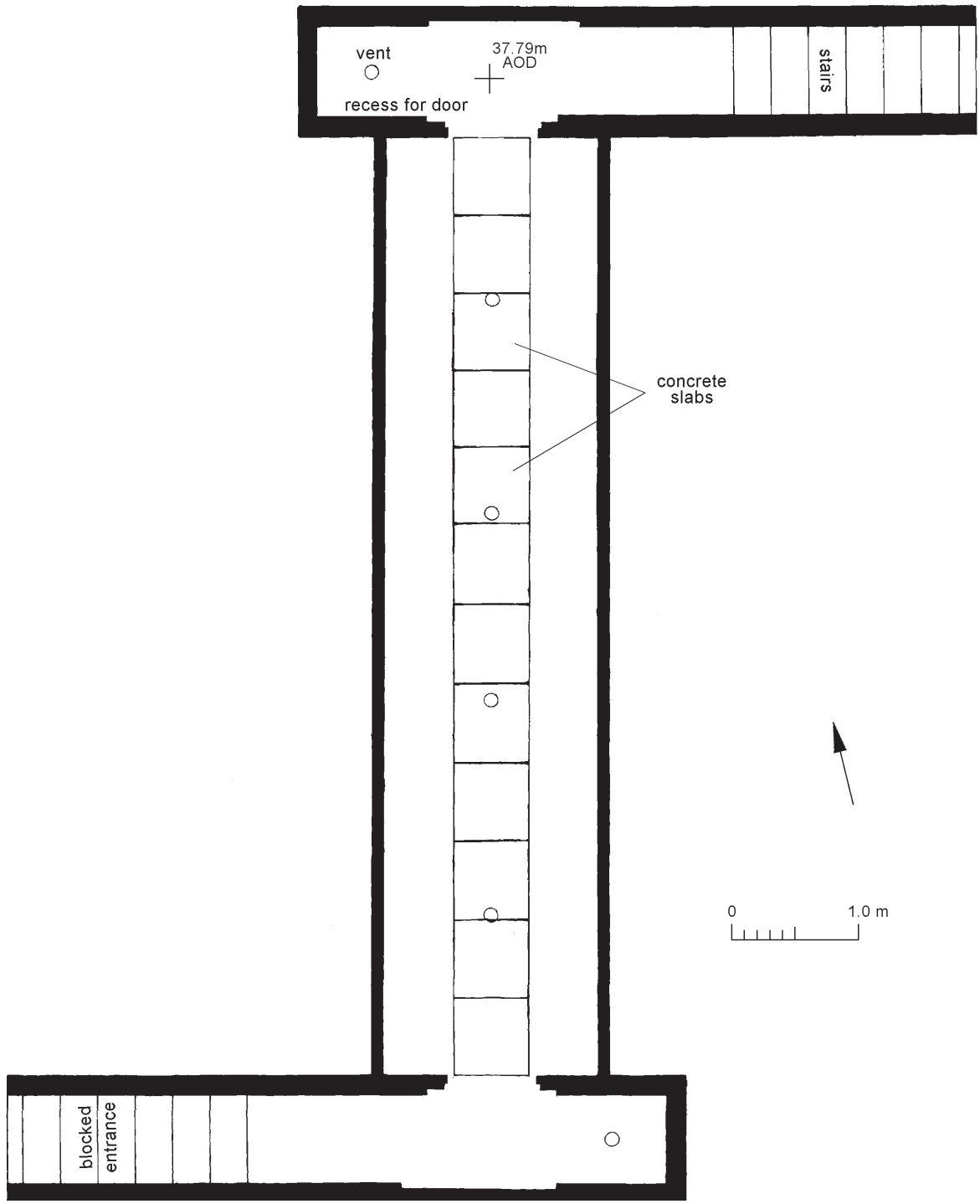


Fig 5 Air-raid shelter 1: internal plan.

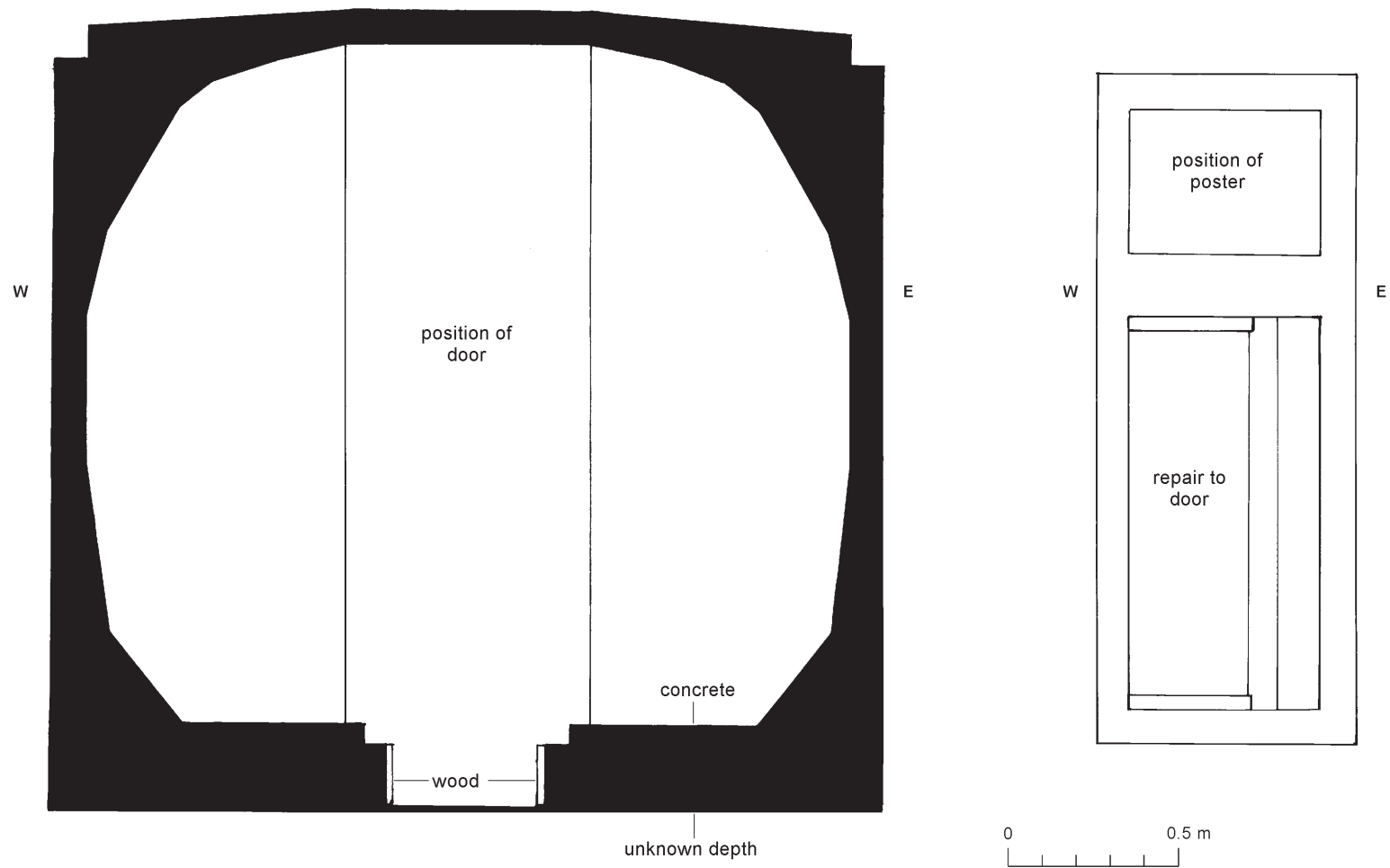


Fig 6 Air-raid shelter 1: interior face of entrance (left) and door (right).

**Essex Historic Environment Record/
Essex Archaeology and History**

Summary sheet

Site name/address: Area C2 of the Garrison Urban Village, Napier Road, Colchester, Essex	
Parish: Colchester	District: Colchester Borough
NGR: TL 9975 2447 (c)	Site code: 2004.295
Type of work: Watching brief and building survey on a group of air-raid shelters	Site director/group: Colchester Archaeological Trust
Date of work: April and May 2004	Size of area investigated: 0.68 ha
Location of finds/curating museum: Colchester Museums	Funding source: Developer
Further seasons anticipated? uncertain	Related EHER nos:
Final report: CAT Report 319 and summary in <i>EAH</i>	
Periods represented: modern	
Summary of fieldwork results: <i>A group of six World War 2 concrete air-raid shelters was surveyed as part of the redevelopment works of Colchester garrison. Three had been largely demolished in the 1940s, two were demolished in 2004, and the sixth still survives.</i>	
Previous summaries/reports: CAT Reports 97 and 271	
Author of summary: K Orr	Date of summary: June 2005