DEVON HOUSE ANCHOR STREET CHELMSFORD ESSEX

ARCHAEOLOGICAL EVALUATION BY TRIAL TRENCHING



Essex County Counci Planning

Field Archaeology Unit November 2008

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Prepared By: David Maynard	Signature:
Position: Project Supervisor	Date:21 November 2008
Checked By: Patrick Allen	Signature:
Position: Project Manager	Date: 21 November 2008

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Field Archaeology Unit, Fairfield Court, Fairfield Road, Braintree, Essex CM7 3YQ fieldarch@essexcc.gov.uk Tel: 01376 331470 Fax: 01376 331428

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DEVON HOUSE ANCHOR STREET CHELMSFORD

ARCHAEOLOGICAL EVALUATION BY TRIAL TRENCHING

Client: Phase 4 Developments Planning application number: CHL/01276/06 ECC FAU project number: 1815 National grid reference: TL 7053 0612 Site code: CF52 Dates of fieldwork: 8th to 10th August 2007 Oasis reference: essexcou1-51089

SUMMARY

An archaeological evaluation was carried out in advance of a residential development at Devon House, Anchor Street, Chelmsford. The development area lies at the edge of the Roman town area and was formerly occupied by an iron foundry established by Thomas Bewley and later the site of Colonel Crompton's first Arc Works, destroyed by fire in 1895. Two trenches totalling approximately 32m in length were excavated within standing buildings. Trial trenching was accompanied by the recording of the standing buildings in the development area, all of which postdated the 1895 fire. The historic building recording is reported on separately (Letch 2008)

Only one of the evaluation trenches uncovered substantial remains, elsewhere they were heavily disturbed by demolition and service trenches. In spite of the development lying close to both the Roman town and the London-Colchester road, no evidence of Roman activity was uncovered. All of the structures and features uncovered by the evaluation were industrial in nature and related either to the Anchor Works or Crompton's Arc Works. The remains uncovered consisted largely of brick-built structures, part of the northwest range of the iron foundry, which showed some evidence of rebuilding during its life. Internal features included the base of a furnace close to the outer wall of the range and a flue further inside the building. Some fragments of casting moulds were recovered, together with scattered waste, and these indicated that the works also undertook brass-

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founding, which may be associated with the ownership of the works by T.H.P. Dennis, a hydraulics engineer.

The iron foundry range was extended to the northwest under Crompton's ownership, taking it up to the boundary of the development area, with much of the extended area taken up by a deep cellar. No floor surfaces contemporary with the structures survived and extensive evidence of demolition was also noted. There were extensive deposits of dumped electrical components at the northwestern end of the development area, which were sampled and produced a range of items associated with the Arc Works.

1.0 INTRODUCTION

This report describes the results of an archaeological evaluation in advance of a residential development at Devon House, Anchor Street, Chelmsford, carried out by the Essex County Council Field Archaeology Unit (ECC FAU) for Phase 4 Developments. The archaeological work was undertaken as a condition on planning consent (CHL/01276/06) following advice from the Essex County Council Historic Environment Management team (ECC HEM) in accordance with Planning Policy Guidance note 16 (DoE 1990). The investigation followed the archaeological brief issued by ECC HEM (2007) and the written scheme of investigation prepared by ECC FAU (2007). All stages of work were monitored for the planning authority by ECC HEM.

Copies of this report will be supplied to Phase 4 Developments (including a copy for the local planning authority), ECC HEM, the Essex Historic Environment Record (ECC HER) and Chelmsford Museum. A digital version will be uploaded to the Online Access Index of Archaeological Investigations (OASIS) (<u>http://ads.ahds.ac.uk/project/oasis</u>). The project archive will be deposited at Chelmsford Museum.

2.0 BACKGROUND

2.1 Location and Topography (Figs 1 and 2)

The development site is located in the Moulsham suburb of Chelmsford, south of the town centre and 400m south of Parkway, the inner ring road. It lies on the southern side of Anchor Street, 35m west of Moulsham Street (TL 7053 0612). At the time of the evaluation the site was occupied by buildings arranged around a central courtyard reached by an entrance from Anchor Street, and had last been occupied by a health and fitness club. The Anchor Street frontage is occupied by a range of grade II listed buildings built c. 1902, which were originally an electricity generating station. These will be retained and refurbished in the proposed development, although some modern additions, and several relatively recent industrial buildings ranged around the yard to their rear, will be demolished. The standing buildings were surveyed as part of the redevelopment and are reported on separately (Letch 2008).

2.2 Geology

The development area lies on the gravel terrace to the south of the confluence of the rivers Can and Chelmer. Most of the gravel terrace is covered by a layer of brickearth.

2.3 History and Archaeology (Figs 2, 3 and 4)

The development site is located on the southern edge of the Roman town of *Caesaromagus*, which developed along the Roman London-Colchester road (modern Moulsham Street), to the south of the crossing of the river Can. After the abandonment of the Roman town, the medieval town of Chelmsford was founded in 1199 to the north of the river crossing. A small suburb existed along Moulsham Street in the medieval and post-medieval periods, but the site lay outside the settlement in an area of open fields until it was occupied by industrial development in the mid-19th century.

The area of the Roman town has been extensively investigated and only archaeological sites in the immediate vicinity of the site are specifically mentioned here. The Roman town was established in c. AD 70-75 on the site of a short-lived fort built after the Boudican revolt of AD 60-61. A civilian settlement developed along the London-Colchester road (modern Moulsham Street) and a side road to the east that led to Heybridge and Wickford. The town included a *mansio* (government posting station) with attached bath-house, and a temple precinct. In *c.* 160-75 substantial earthwork defences were constructed to defend the town's core but the southern side of the circuit at least was abandoned by the mid-3rd century. Settlement continued to extend to the south along the London-Colchester road (Moulsham Street). The site thus lies at the southern edge of the established extent of the Roman town, and outside the town defences.

An excavation immediately to the southeast of the development site, at 145 Moulsham Street, recorded Roman settlement dating from the later 1st to early 4th centuries along the Moulsham Street frontage (Fig. 1, Site CF45; Robertson 2005; Robertson and Compton forthcoming). The remains consisted of boundary ditches and rubbish pits, and although the presence of roadside buildings is implied, the relevant levels had been disturbed by modern groundworks. A roadside building, rubbish pits and a ritual horse burial, all dating to the 2nd century, were recorded in a second excavation immediately to the south, at Lasts Garage, now Albion Court (Wallis 1988). On both sites the Roman settlement remains appear to have been concentrated within 20m of the Moulsham Street frontage.

Anchor Street is first shown on Walker's map of 1591 as a lane extending westwards from Moulsham Street, giving access to fields behind cottages and their smallholdings ranged along the street frontage. The industrial history of the site has been summarised in a survey by the RCHME (Cocroft and Menuge 1999). Thomas Bewley established the Moulsham Iron Foundry on Anchor Street in 1841 to produce agricultural machinery (Grieve 1994, 358). The foundry is shown on the 1842 Chelmsford Tithe Map (Essex Record Office D/CT72A) as two ranges of buildings forming an L-shape, standing within a square plot extending to Queen Street. Bewley's works remained in production until the 1860s, when T.H.P. Dennis, a hydraulics engineer and former ironmonger, took over the site. He established the Anchor Works shown on the 1st edition Ordnance Survey map of 1874 (Fig.3). Rather than rebuild, it appears that Bewley's original L-shaped foundry was extended to the south-west and peripheral buildings added on the other side of an open yard. By 1878 the premises had been acquired by Colonel Crompton, a pioneer in electric arc lighting, dynamos and other equipment, and was known as Crompton's Arc Works (Fig. 4). After the Arc Works had been destroyed by fire in 1895, Crompton moved his main works to a more convenient site elsewhere, and the Anchor Street frontage was redeveloped in around 1900 as an electricity generating station, operated by the Chelmsford Electric Lighting Co. Ltd (Fig. 2). By 1902 the southern part of the site had been redeveloped by Thomas Clarkson as a factory making steam cars and, after World War I, motor cars.

The buildings of the electric lighting station survive largely intact along the Anchor Street frontage and are grade II listed. The large central building was the engine house, and is flanked by offices to the southeast. These will be retained and refurbished and are not be subject to archaeological trenching. A boiler house serving the lighting station formerly stood in the southwest of the site; this has largely been demolished, though some lengths of wall survived. The building in the south-west of the site (latterly the heavy gym) was formerly part of Clarkson's car factory.

3.0 AIMS AND OBJECTIVES

The general aim of the archaeological investigation was to establish the presence/absence of any significant remains, especially related to the Roman town and its more recent industrial history, and to preserve, by record, any archaeological deposits that will be destroyed by the construction of the new flats.

The research objectives for the project were in line with those laid out in *Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy* (Brown and Glazebrook 2000). Improving the understanding of Roman 'small towns' is an

important regional research aim. The history of pioneering industries on the site also makes any 19th-century industrial remains of research importance. The most recent industrial history of the site, including the electricity generating station and Clarkson's factory, are covered by the historic building recording and related historical research (Letch 2008).

The specific objectives of the investigation were:

- To establish the date and character of activity at the southern edge of the Roman town;
- To locate and characterise any remains of 19th-century industrial buildings relating to the Anchor Works or Crompton's Arc Works, by combining below-ground recording and documentary/cartographic research.

4.0 METHOD

The archaeological work was undertaken in accordance with the Institute of Field Archaeologists' *Standards and Guidance for Archaeological Field Evaluation* and the Association of Local Government Officers' *Standards for Field Archaeology in the East of England* (IFA 1999; Gurney 2003). The ECC FAU is a registered archaeological organisation with the Institute of Field Archaeologists. The ECC FAU uses its own recording system to record all archaeological deposits and features.

Two trenches were excavated using a mini-digger fitted with a toothless bucket, after breaking out the concrete floors of the buildings in which the trenches were located. Trench 1 was excavated by machine down to the surface of the natural brickearth; Trench 2 only as far as the base of the rubble deposit underlying the modern concrete slab floor.

All surfaces were sufficiently cleaned to identify any features present and spoil heaps were examined for archaeological material. Archaeological features and deposits were excavated using hand tools and finds were collected and bagged by context. The trench locations were surveyed through measurement to site boundaries recorded on Ordnance Survey, and levels were taken relative to Ordnance Datum. Features and deposits were recorded using proforma site recording sheets. Plans and sections were generally drawn at 1:20 and 1:10 respectively.

5.0 FIELDWORK RESULTS

5.1 Trench 1 (Figs 1 and 2)

Trench 1 was excavated inside a former workshop building, constructed as part of Clarkson's works between 1924 and 1939 (Letch 2008, 14-15). The trench was originally planned to be approximately 10m in length, but the presence of large concrete bases and service trenches meant the full length could not be opened up. Some evidence of brick structures was uncovered beneath the concrete slab floor, but the effects of previous demolition and extensive disturbance prevented any detailed understanding of their nature and function. The surface of the natural brickearth was exposed for much of the length of the trench. This was devoid of any features other than service trenches, and no trace of Roman activity was uncovered. A test-pit excavated against the outer wall of the building also exposed natural brickearth overlain by modern overburden

5.2 Trench 2 (Figs 1, 2 and 5, Plates 1 and 2)

Trench 2 was excavated inside the former heavy gym in the northwestern corner of the plot. The trench was originally 20m in length, with a small extension of 1.7m subsequently added at the southeastern end to explore a brick pier uncovered at the original end of the trench. Although the standing building formed part of Clarkson's works, the exterior walls apart from the frontage appear to have survived from the Chelmsford Electric Light Company's boiler house, built *c*. 1902 (Letch 2008, 15).

At least two phases of activity were uncovered, with structures in the southeastern half of the trench from the Anchor Works (or conceivably its precursor), and those in the northwestern half belonging to the later Arc Works. No traces of contemporary floor or ground surfaces were uncovered relating to either phase of activity. As with Trench 1, all the structures showed extensive signs of demolition, but in this case some sense could be made of the remains, which were noticeably better-preserved in the northwestern end of the trench.

5.2.1 Anchor Works

The rear of the building was marked by a wall (10, constructed in foundation trench 29), consisting of yellowish frogged London Stock-type bricks bonded with thinly-applied greyishbrown lime mortar. Three courses survived above the foundation offset with the outer (northwestern) face of the wall consisting entirely of headers and the inner face lined with bricks laid in a stretcher bond. At the extreme southeastern end of the trench a brick pier (16) represents the front of the building, which would appear to have had an open front facing into the internal yard. The pier consisted of red bricks bonded with a grey lime mortar and also survived to height of three courses.

Within the building, which had an internal width of *c*. 7.5m, two further brick-built structures were uncovered; one (11) adjacent to the rear (northwest) wall, with the second (13) roughly in the centre of the internal space. The area between the two internal structures was covered by a patchy spread of redeposited brickearth (23). Structure 11 was probably the sunken base of a furnace and was 0.55m deep, and constructed of seven courses of frogged London Stock-type bricks, similar to those used in wall 10, laid rather roughly and bonded with lime mortar, that had been reddened by exposure to heat. The base of the structure was also lined with brick.

The second internal structure (13) appears to be the surviving base of a flue running across the width of the building, though only the northeastern side lay within the evaluation trench. Structure 13, approximately 0.07m deep, consisted of a foundation of header-laid London Stock-type and red bricks supporting two courses of stretcher-laid bricks, all bonded with a pale grey lime mortar, constructed in a shallow foundation trench (36). A pad of four bricks lay beneath the southeastern end of the foundation and marked the open end of the flue. The foundation course was overlain by a construction layer (35) consisting of mixed silt and brickearth with a patchy surface of compacted mortar. Overlying this was a compacted layer (14) of dark brown silty clay mixed with patches of brickearth, and containing iron slag and mould fragments. This appeared to be a trampled deposit rather than a proper floor layer. The mould fragments appeared to have been used for casting copper alloy objects, and splashes of similar metal were noted on some of the bricks (Finds report 6.2, below).

Demolition and subsequent activity had caused extensive damage to all of the structures uncovered, furnace 11 was choked with a mixture of brick rubble (22, 40) and reddened brickearth, which also scattered over the surrounding area (12). Pier 16 had been damaged by a large pit (24), dug against the inside of the structure and filled with mixture of dark brown soil and rubble (25). The trench (26) for a metal pipe/conduit (38), backfilled with brown soil (27) had been dug adjacent to flue 13, although this feature was only partially investigated since it was evidently of recent date.

5.2.2 Arc Works

Features relating to the Arc works were concentrated in the northwestern half of the evaluation trench.

A deep cellar was uncovered at the northwestern end of the trench, bounded by walls 1 and 5; both of these were constructed of London Stock-type bricks, both frogged and unfrogged, bonded with a lime mortar in an English bond. The cellar walls obviously predated the standing building, however, with wall 1 clearly built using different mortar and coursing to the above-ground part of the wall, which was probably constructed *c*. 1902. Filling the cellar was a succession of layers of debris (18), (19) and (20), with the upper layer (18) consisting largely of demolition rubble and the lower layers containing large amounts of ash and debris apparently from the Arc Works, including some discarded electrical equipment (see 6.2, below). Bricks on the top course of wall 5 had an inset cut into them which may have been to seat a vaulted roof over the cellar. The fill of the cellar extended below the lower limit of excavation, but the combined depths of fill deposits exceeded 1.8m.

The area to the southeast of the cellar was divided by a wall aligned along the trench (wall 6 in foundation trench 28) bonded to a short return wall (7) of the same construction, with a rubbish deposit (8) to the southwest and a dirty, trampled layer (9) overlying the natural brickearth to the northeast. Wall 6 consisted of three courses of London Stock-type and red bricks, built in stretcher bond with a yellow lime mortar, set in a shallow foundation trench (28). Rubbish deposit 8 was 0.4m in depth and similar in make-up to the lowest deposit encountered in the cellar (20, above) and contained similar debris likely to derive from the Arc Works. Underlying this deposit was a layer of demolition rubble (37) at least 0.5m deep. Walls 6 and 7 may have bounded another cellar, but it was less well constructed than the example at the northwestern end of the trench and there was no suggestion of a roof.

Further evidence of demolition and levelling of rubble generally overlay the features at the northwestern end of the trench, with an ash layer (17) partially spilling over the cellar wall 5 and another layer of rubble (3) underlying the concrete slab floor (2).

6.0 FINDS by Joyce Compton

Finds were recovered from twelve contexts in Trench 2. Two brick fragments were also found unstratified. All of the material has been recorded by count and weight, in grams, by context. Full quantification details can be found in Appendix 2. The finds mainly comprise sample bricks, recovered from eight contexts, plus two unstratified fragments. Small groups of other finds, including modern industrial material, were also recovered. The finds are described briefly by category below. The sample bricks were examined by Pat Ryan and the industrial material by Geoff Bowles of Chelmsford museum.

6.1 Sample bricks

Twenty-nine sample bricks and brick fragments were recorded; dimensions and descriptions have been tabulated (Appendix 3). All are of 19th or 20th century date.

Summary by Pat Ryan

All of the bricks are 19th or early 20th century in date. Many are London Stock-type bricks which became very popular in the 19th century and were cheaper to manufacture than Reds. They continued to be produced in Essex brickyards, which were located near railways or navigable waterways, until the closure of the majority of the yards in the Second World War. The firebricks, made from a type of clay found in the Midlands, were probably brought to Chelmsford by rail.

6.2 Industrial material

Four contexts produced industrial material, which has been examined by Geoff Bowles, Chelmsford Museum's industrial specialist, as follows;

Industrial mould fragments

These were noted in fill 22 of furnace base 11 and adjacent make-up 14. Green corrosion on internal surfaces of the mould fragments indicates that these are parts of cylindrical ceramic crucibles used to melt copper or copper alloy. At least two crucibles are represented. It is likely that these are from a brass foundry, which may well date back to Crompton's predecessor on the site, T H P Dennis, hydraulic engineers there from 1869. Note that the fire which destroyed the works in 1895 will also have produced large quantities of ash and slag.

Electrical fittings from cellar fill 20

These appear to be electrical fittings from the factory rather than from Crompton products: Loop of thin wire protruding from ceramic base with triple contacts, remains of ceramic supports to wire and fine wire filament, apparently the bases and support wires from light bulbs. A number of bases are stamped AEGMA - this is the logo of Allgemeine Elektricitäts-Gesellschaft, a pioneer German electrical company. AEG was founded in Berlin in 1883 as the Deutsche Edison-Gesellschaft (http://www.britannica.com/eb/article-9062764), renamed AEG 1887. in and their hexagonal logo was designed by Behrens (http://www.britannica.com/eb/article-9015138) in 1907. It should be noted that the fittings from fill 20 do not have this logo.

Further electrical fittings comprise copper alloy contacts in broken ceramic insulators; no markings. One has braided copper wire and terminal attached to the contact, with a brass post set into the insulator. It may be the holder for a large fuse. Also present are a small cylindrical ceramic insulator with no markings, one bayonet bulb holder and a rectangular block of wood with annular mica insulator in circular recess with two electrical contacts. This is probably the base of a simple electrical switch. Part of a copper alloy casting appears to have been sawn off a door fitting, or similar.

Also present are carbon rods, which are for arc lights, the first product of Crompton's factory. These are stamped with various European maker's names, such as "S.F. Auer & ?W. Brevete", "C. Conradty 'Noris' Niederspannung", "C. Conradty Nuernberg Marke C", "S.C.D.G. Cont 51-1-09". Some are used, some unused. Lastly, mica plates, mostly rectangular, one annular, were used as insulators between metal components in electrical equipment. Rust on some indicates that they have been used, although most appear to be unused. They were probably used in the motors, generators and switchgear made by Crompton.

Iron object from fill 32 of pipe-trench 31

Removal of surface corrosion revealed a short length of wrought iron, rectangular section, with what appeared to be two raised flanges on one surface. This was probably part of a structural frame, subsequently cut up.

6.3 Other finds

Small quantities of metal, ceramic and glass finds were recorded in five contexts. The metal finds comprise pieces of lead pipe and flashing from cellar fill 20, copper alloy sheet fragments from fill 22 of furnace 11 and iron sheet fragments from fill 32 of pipe-trench 31. Roof tile and brick fragments were recovered from three contexts and amounted to seven pieces, weighing 526g. These finds are all modern and probably represent structural elements either from the current building or one of its predecessors.

Two contexts produced pottery; surface 9 yielded a saucer rim sherd (weight 2g) in white earthenware, with blurred blue transfer-printed decoration. Layer 23 contained two white earthenware plate sherds (10g), one with blue-transfer-printing. Bottle glass (five pieces, weighing 638g) was recovered from three contexts, including a complete green lemonade bottle with internal screw-thread neck, embossed "R.W. & S. WHITE Ld", in cellar fill 20. Internal screw-thread bottle closures are a late 19th-century invention. Dark green bottle

body sherds, of a similar date, were found in layer 23 and fill 32 of pipe-trench 31. The pottery and glass sherds are all from late 19th or 20th century items.

6.4 Comments on the Assemblage

A variety of finds was recorded, albeit of 19th and 20th century date. The industrial material is a welcome addition to the documentary evidence for Crompton's Arc Works and the Anchor Works and its predecessors. This material, along with the complete lemonade bottle, has been deposited with Chelmsford Museum. It is interesting to note that White's lemonade is still on sale today, although now in plastic bottles. The bricks have been selected for retention, in accordance with Pat Ryan's recommendations, and these will also be deposited in Chelmsford Museum. The non-selected bricks have been discarded, along with the remainder of the incidental modern finds.

7.0 CONCLUSIONS

No evidence was uncovered during the evaluation of Roman activity, probably due to the position of the development area 30m or more back from the line of the Roman road. The presence of sporadic Roman features elsewhere in the development area cannot be ruled out entirely, however, since the site lies close to the defences of the Roman settlement. Similarly, medieval and post-medieval activity cannot be entirely ruled out, though the location of the site in fields beyond the limits of the built-up area makes it unlikely that it would be of much archaeological significance.

It appears that the remains uncovered in Trench 2 all relate to the earlier phases of the industrial use of the site and in particular to the northwest wing of the Anchor Works and Crompton's Arc Works, which burned down in 1895. It is possible that some of the features of the iron foundry uncovered at the southwestern end of the trench may derive from Bewley's earlier works, as the brick pier which marked the open front of the building was clearly not of the same build as the rear wall, indicating that some modification took place during the life of the works.

The thorough demolition of the buildings destroyed in the 1895 fire left no trace of aboveground structures and little evidence to elucidate the activities carried out in either phase, although it is clear from mould fragments and industrial waste that the iron foundry also produced items in copper alloy, probably brass.

8.0 ASSESSMENT OF RESULTS

The lack of Roman features is in agreement with the results of excavations along Moulsham Street, which suggest that roadside buildings and yards were confined to a relatively narrow ribbon along the London-Colchester road.

Evaluation Trench 2 has confirmed the layout of the northwestern range of the Anchor Works and subsequent Arc Works, previously only recorded in cartographic sources, and characterised the activities undertaken within the various phases of the pre-1895 structures. The industrial remains are reasonably well preserved and show evidence of rebuilding within the period of use as an iron foundry. Even though above-ground structures were cleared after the 1895 fire, it was possible to gain an understanding of the ground-plan of the demolished buildings from their foundations and also of their interiors. The results of the evaluation amplify those of the historic building survey, which only recorded structures dating from c.1902 at the earliest, permitting a fuller understanding of the development of the various industries that have utilised the plot.

Acknowledgements

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BIBLIOGRAPHY

Brown N and	2000	Research and Archaeology: a Framework for the Eastern
Glazebrook J		Counties, 2. research agenda and strategy, East Anglian
		Archaeol. Occ. Paper 8
Cocroft, W. and	1999	Buildings of the Radio Electronics Industry, Chelmsford,
Menuge, A.		Essex, RCHME, Cambridge
DoE	1990	Planning Policy Guidance Note 16: Archaeology and
		Planning HMSO, London

ECC FAU	2007	Written Scheme of Investigation for Archaeological Investigation: Devon House, Anchor Street, Chelmsford, Essex, ECC FAU			
ECC HEM	2007	Design Brief for an Archaeological Investigation at 31			
Francia		Mildmay Road, Chelmsford, Essex, ECC HEM			
Encyclopedia		http://www.britannica.com/eb/article-9015138			
Britannica online		Accessed 17th August 2007			
Encyclopedia		http://www.britannica.com/eb/article-9062764			
Britannica online		Accessed 17th August 2007			
Grieve, H.	1994	The Sleepers in the Shadows: A History of Chelmsford Vol. 1 ,			
		ERO publication no. 128			
Gurney, D.	2003	Standards for Field Archaeology in the East of England, E.			
		Anglian Archaeol. Occ. Paper 14			
IFA	1999	Standard and Guidance for archaeological evaluation.			
		Institute of Field Archaeologists			
Letch, A	2008	Former electric lighting station, Anchor Street, Chelmsford,			
		Essex: Historic Building Recording, ECC FAU Report			
Robertson, A.	2005	145-145A Moulsham Street, Chelmsford, Essex.			
		Archaeological Excavation. ECC FAU report			
Robertson, A. and	Forth-	Roman remains at 145-145a Moulsham Street, Chelmsford,			
Compton, J.	coming	Essex Archaeol. Hist			
Wallis, S.	1988	On the outskirts of Roman Chelmsford: excavations at Lasts			
		Garage 1987, Essex Archaeol. Hist. 19, 40-6			

APPENDIX 1: FIELDWORK DATA

Context	Feature	Trench	Category	Details	Period
1		2	Structure	West end-wall of standing building	19th/20th C
2		2	Deposit	Concrete floor	20th C
3		2	Deposit	Rubble layer at northwestern end of trench	20th C
4		2	Deposit	Concreted rubble deposit in centre of trench	20th C
5		2	Structure	Cellar wall	19th C
6	28	2	Structure	Retaining wall southeast of 5	19th C
7		2	Structure	Return wall for 6	19th C
8		2	Deposit	Ash/rubbish deposit bounded by 6 and 7	19th C
9		2	Deposit	Compacted 'surface' to northwest of wall 6	19th C
10	29	2	Structure	Outer wall of foundry building	19th C
11		2	Structure	Furnace base	19th C
12		2	Deposit	Reddened brickearth around 11	19th C
13		2	Structure	Flue base	19th C
14		2	Deposit	Compacted 'surface' adjacent to 13	19th C
15		2	Deposit	Brickearth subsoil	Natural
16		2	Structure	Brick pier	19th C
17		2	Deposit	Ashy layer overlying cellar fill and wall 5	19th C
18		2	Deposit	Brick rubble cellar fill	19th C
19		2	Deposit	Ash/mortar cellar fill below 18	19th C
20		2	Deposit	Ash/rubbish cellar fill	19th C
21		2	Deposit	Clean brickearth packing behind wall 6	19th C
22		2	Deposit	Brick rubble filling 11	19th C
23		2	Deposit	Brickearth between 11 and 14, levelling	19th C
24		2	Cut	Pit dug against pier 16	19th/20th C
25		2	Deposit	Fill of 24	19th/20th C
26		2	Cut	Pipe trench	20th C
27	26	2	Deposit	Fill of 26	20th C
28		2	Cut	Foundation trench for wall 6	19th C
29		2	Cut	Foundation trench for wall 10	19th C
30	29	2	Deposit	Backfill of foundation trench29	19th C
31		2	Cut	Pipe trench adjacent to wall 10	20th C
32	31	2	Deposit	Backfill of pipe trench 31	20th C
33	31	2	Other	Ceramic pipe	20th C
34	13	2	Deposit	Rubble/soil contained by 13	19th C
35	36	2	Deposit	Construction deposit below 13	19th C
36		2	Cut	Construction cut for 13	19th C
37	1	2	Deposit	Rubble underlying 8	19th C
38	26	2	Other	Cast iron pipe in 27	20th C
39		2		Not used	-
40		2	Deposit	Lower fill of 11	19th C

APPENDIX 2: FINDS CATALOGUE

A 11		:	
All	weights	m	grams

Context	Feature	Count	Weight	Description	Date
u/s	-	2	2630	Brick fragments, stamped 'COALBROOKDALE Co, LIGHTMOOR', depths 60 and 63mm	Modern
3	Layer	4	4810	Sample bricks; four part bricks (two dark red, 100 x 63mm; 110 x 65mm; depth 65mm), all frogged (one retained 1740g)	Modern
5	Wall (cellar)	5	7310	Sample bricks; one in two pieces $(230 \times 110 \times 65mm)$, three part bricks $(110 \times 65mm)$, all frogged, all with black ashy coating, studded with copper alloy slag, buff, pebbly mortar also attached, two of the part bricks have a moulded step on the short end (These retained 3150g)	Modern
6	Wall	3	8370	Sample bricks; complete (235 x 105 x 65mm; 230 x 110 x 65mm; 240 x 110 x 65mm), all frogged, two with buff sandy mortar attached to upper and lower surfaces and green deposit on one long side, probably re-solidified copper alloy (This retained 2990g)	Modern
9	Surface	1	2	Pottery; saucer rim sherd, white earthenware, blurred blue transfer-printed decoration (Discarded)	Modern
10	Wall	3	5490	Sample bricks; one complete (230 x 110 x 65mm), one in two pieces (230 x 110 x 65mm), both frogged (Complete brick retained 2820g)	Modern
11	Structure	1	2610	Sample brick (pink, 230 x 105 x 65mm), frogged	Modern
13	Wall	7	6770	Sample bricks; one complete (230 x 110 x 65mm), one in fragments (red, 240 x 110 x 65mm) and one half brick (110 x 65mm), all with shallow frogs (This discarded 1110g)	Modern
14	Surface	5	1310	Ceramic mould fragments, with vitrified surfaces and	-
		2	1560	copper alloy slag adhering Brick fragments, thickness 62mm, ?fire-bricks, one edge is curved and has a vitrified outer layer (with a thickness of 10mm)	Modern
20	Cellar fill	1	585	Bottle glass; complete green lemonade bottle, internal screw-thread neck, embossed "R.W. & S. WHITE Ld"	Modern
		44	1741	Electrical fittings, comprising carbon rods from arc lamps, mica plates, porcelain and bakelite connectors, lamp bases and fittings, some marked AEGMA	Modern
		3 2	800 5040	Lead pipe sections and flashing (Discarded - scrap) Sample bricks; one complete (with stamped makers' name, unreadable, ?fire-brick, 230 x 115 x 65- 70mm) and one half brick (115 x 65mm), this with black ashy coating as 5, both frogged (Half brick discarded 1450g)	Modern Modern
22	11	3 3 5	6 124 735	Copper alloy sheet fragments (Discarded) Cindery fragments, ?fuel ash slag	-
		5 1	735 20	Slag fragments, some with copper alloy attached Roof tile fragment (Discarded)	- Modern

Context	Feature	Count	Weight	Description	Date
23	Layer	2	8	Bottle glass; dark green body sherds (Discarded)	Modern
	-	2	144	Roof tile fragments (Discarded)	Modern
		2	56	Brick fragments (Discarded)	Modern
		2	10	Pottery; white earthenware plate sherds, one with blue transfer-printing (Discarded)	Modern
32	31	1	1080	Iron block, 65 x 65 x 40mm, corrosion products adhering	-
		4	46	Iron sheet fragments (Discarded)	-
		2	50	Bottle glass; dark green body sherds (Discarded)	Modern
		2	306	Roof tile fragments, one with nib (Discarded)	Modern

APPENDIX 3: BRICK CATALOGUE

Context	Feature	Dimensions	Description	Date
u/s	-	Depth 60- 65mm	Two fragments, each stamped 'COALBROOKDALE Co, LIGHTMOOR', firebrick	Probably 19th C
3	Layer	160 x 110 x 65mm Depth 65mm 155 x 105 x 65mm	Three part bricks, all frogged; Yellow; horizontal pressure mark; shallow frog; London Stock-type Sienna; over-fired; London Stock-type Sienna; rather over-fired; narrow frog	19th/early 20th C 19th/early 20th C Late 19th/ 20th C
5	Wall (cellar)	235 x 110 x 65mm	Four fragments, inc one brick in two pieces, all frogged; Yellow; shallow frog, London Stock-type Yellow; shallow frogs; London Stock-type; both have one header face which has been cut to fit against another structure; mortar attached to these has a black ashy appearance and includes fragments of red brick	19th/early 20th C 19th/early 20th C
6	Wall	230-240 x 105-110 x 65mm	Three complete bricks, all frogged; Yellow; misshapen; shallow frogs; London Stock-type; two have sandy lime mortar attached to upper surface and base, and green deposit on one stretcher surface	19th/early 20th C
10	Wall	240 x 110 x 70mm 240 x 110 x 65-70mm	Complete bricks, one in two pieces, both frogged Yellow; shallow frog; London Stock-type Yellow; shallow frog; London Stock-type	19th/early 20th C 19th/early 20th C
11	Structure	230 x 110 x 65mm	Complete brick; salmon pink; fairly regular; fairly sharp arrises; shallow frog	19th C
13	Wall	230 x 110 x 65mm 230 110 x 65mm 110 x 65mm	One complete brick, one in four fragments and one half brick; Red; regular; horizontal pressure mark; shallow frog Yellow; shallow frog; London Stock-type Sienna; over-fired; shallow frog; London Stock-type	19th C 19th/early 20th C 19th/early 20th C
14	Surface	Depth c. 63mm	Two fragments, yellow fire-bricks, one surface is very vitrified, probably from use rather than as a result of the brick-manufacturing process	19th/20th C
20	Cellar fill	230 x 115 x 65-70mm	Complete brick, frogged; not an Essex fabric; stamped with makers' name, illegible; probably a fire-brick	19th C

APPENDIX 4: ARCHIVE INDEX

DEVON HOUSE, ANCHOR STREET, CHELMSFORD (CF52)

Index to the Archive

File containing:

1. Introduction

- 1.1 Brief for Evaluation
- 1.2 Written Scheme of Investigation

2. Research Archive

- 2.1 Evaluation Report
- 2.2 Finds Report

3. Site Archive

- 3.1 Context Register
- 3.2 Trench Record Sheet (Trench 2 only)
- 3.3 Context Record Sheets 1 to 40 (Context Number 39 not used)
- 3.4 Plan Register
- 3.5 Section Sheet Register
- 3.6 Levels Register
- 3.7 Miscellaneous maps and plans

Not in Files:

Site Drawings: Three Large Sheets Pencil Drawings Two boxes of finds

APPENDIX 5: EHER SUMMARY SHEET

Site Name/Address:	
Devon House, Anchor Street, Chelmsford	
Parish:	District:
Chelmsford	Chelmsford
NGR:	Site Code:
TL 7053 0612	CF52
Type of Work:	Site Director/Group:
Trial-trenching	Patrick Allen, ECC FAU
Date of Work:	Size of Area Investigated:
08/08/07 – 10/08/07	2 Trenches; c. 38m ²
Location of Finds/Curating Museum:	Funding Source:
Chelmsford	Phase 4 Developments
Further Work Anticipated?	Related EHCR Nos:
Not known	
Final Report:	OASIS reference:
Essex Archaeology and History summary	essexcou1-51809
Periods Represented:	
Post-medieval, Modern	

SUMMARY OF FIELDWORK RESULTS:

An archaeological evaluation was carried out in advance of a residential development at Devon House, Anchor Street, Chelmsford. The development area lies at the edge of the Roman town area and was formerly occupied by an iron foundry established by Thomas Bewley and later the site of Colonel Crompton's first Arc Works, destroyed by fire in 1895. Two trenches totalling approximately 32m in length were excavated within standing buildings. Trial trenching was accompanied by the recording of the standing buildings in the development area, all of which post-dated the 1895 fire. The historic building recording is reported on separately (Letch 2008)

Only one of the evaluation trenches uncovered substantial remains, elsewhere they were heavily disturbed by demolition and service trenches. In spite of the development lying close to both the Roman town and the London-Colchester road, no evidence of Roman activity was uncovered. All of the structures and features uncovered by the evaluation were industrial in nature and related either to the Anchor Works or Crompton's Arc Works. The remains uncovered consisted largely of brick-built structures, part of the northwest range of the iron foundry, which showed some evidence of rebuilding during its life. Internal features included the base of a furnace close to the outer wall of the range and a flue further inside the building. Some fragments of casting moulds were recovered, together with scattered waste, and these indicated that the works also undertook brass-founding, which may be associated with the ownership of the works by T.H.P. Dennis, a hydraulics engineer.

The iron foundry range was extended to the northwest under Crompton's ownership, taking it up to the boundary of the development area, with much of the extended area taken up by a deep cellar. No floor surfaces contemporary with the structures survived and extensive evidence of demolition was also noted. There were extensive deposits of dumped electrical components at the northwestern end of the development area, which were sampled and produced a range of items associated with the Arc Works.

Previous Summaries/Reports:

Letch, A. 2008 Former Lighting Station, Anchor Street, Chelmsford, Essex: Historic Building Recording, ECC FAU Report

Author of Summary:	Date of Summary:
David Maynard	21 November 2008

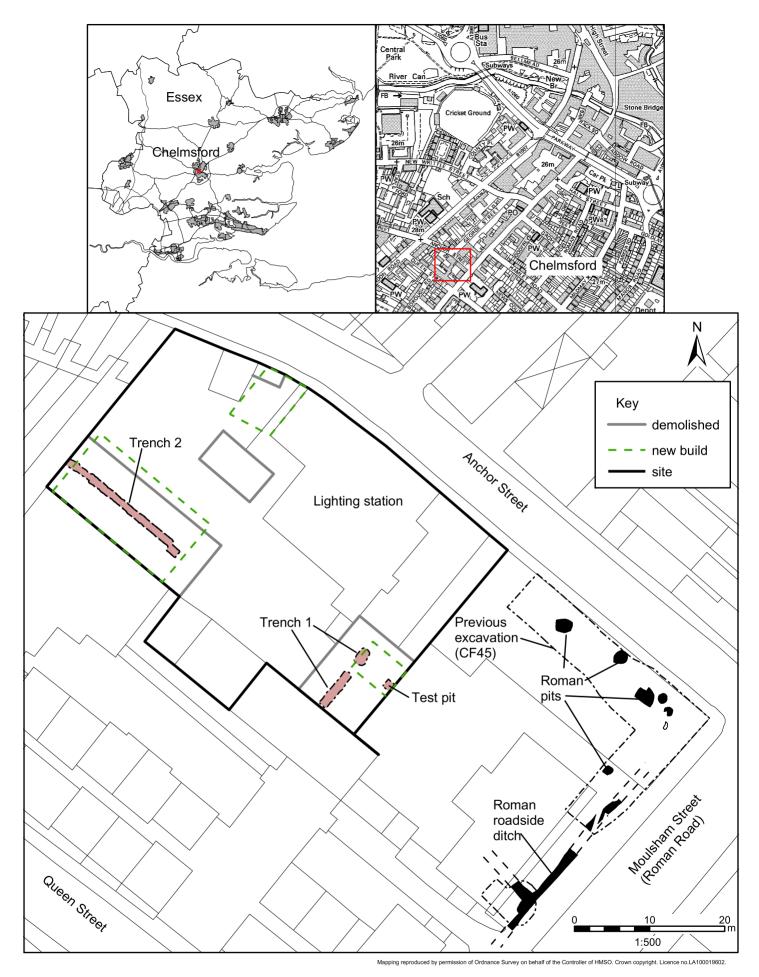
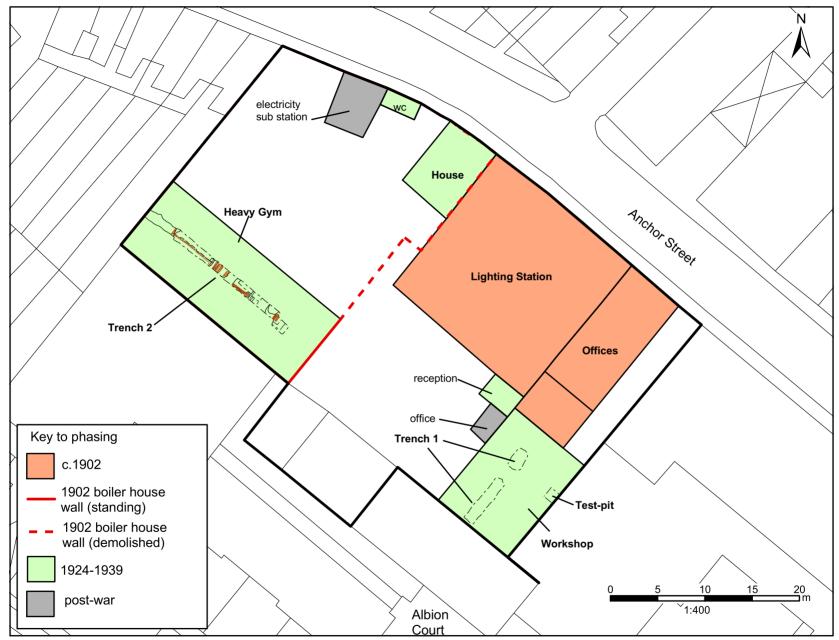




Fig.1. Site location



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Fig.2. Phased block plan

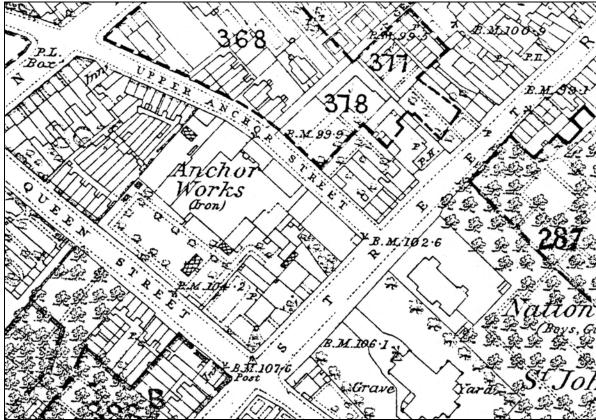


Fig.3. Anchor Works from First Edition OS map, 1874 (sheet 52/8)

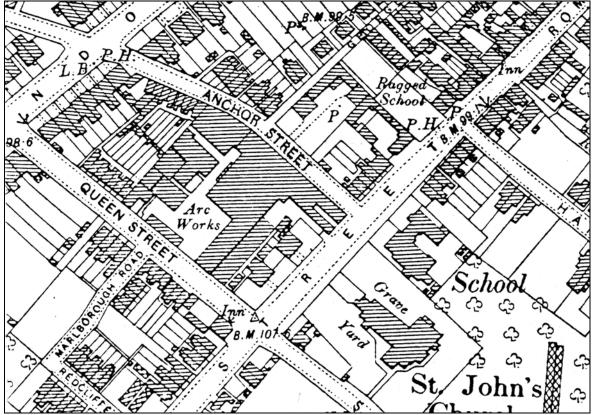


Fig.4. Crompton's Arc Works shown on Second Edition OS map, 1896 (sheet 52/8)

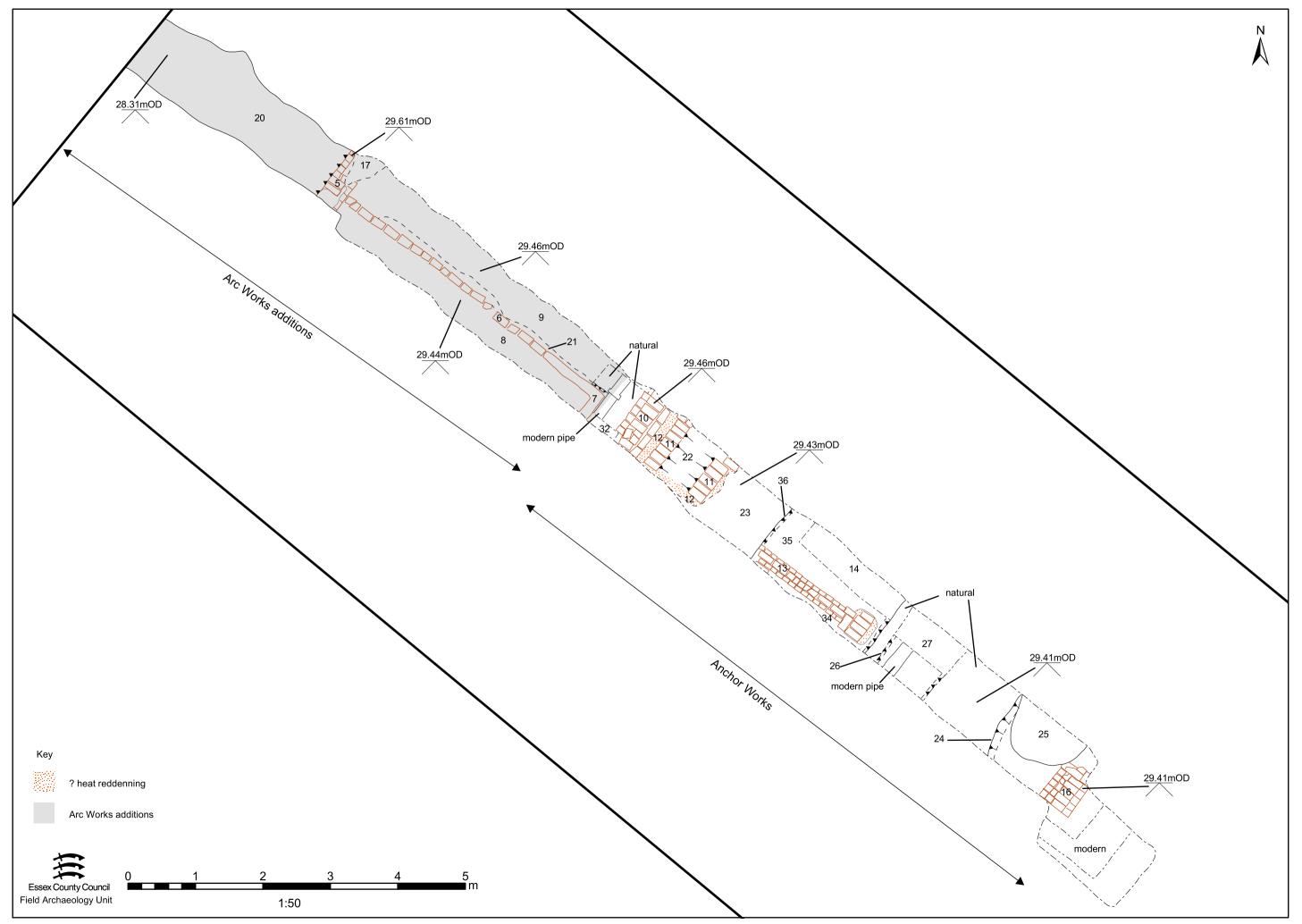






Plate 1 : Trench 2 after cleaning, looking northwest (Scale 1m)



Plate 2 : Trench 2 northwestern half, looking northwest, furnace base 11 in foreground (Scale 0.5m)