

**A GUIDE TO THE
INDUSTRIAL
ARCHAEOLOGY OF**

ESSEX

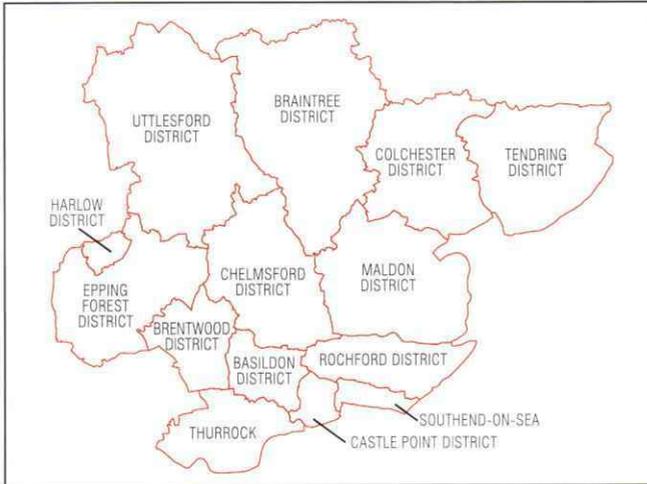


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Each gazetteer entry has a letter or letters and number that relate to the location maps, photographs and index. The National Grid Reference is given to aid more accurate location.

Sites are listed by the twelve Essex Districts and the Unitary Authorities of Southend-on-Sea and Thurrock, which are part of historic Essex, and alphabetically by town or village.

Against each site is a symbol denoting access:

★ Can be viewed from footpath or road which passes near or through the site. This does not imply there is permission to wander anywhere at will.

□ Open to the public, often with facilities on at least regular open days.

NOTE: THE INCLUSION OF SITES IN THE GAZETTEER DOES NOT IMPLY PUBLIC ACCESS. WHENEVER YOU ARE IN DOUBT IT IS ALWAYS COURTEOUS TO ASK PERMISSION TO ENTER A SITE.

PUBLISHED BY THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY 2012

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front cover: *Crompton & Co Arc Works, Writtle Road, Chelmsford (see C2.10)*

back cover: *The drinking fountain and horse trough at Quendon, beside the old A11 road (see U15)*

ISBN 978 0 9560251 1 1

A GUIDE TO THE INDUSTRIAL ARCHAEOLOGY OF E S S E X

TONY CROSBY



BT2.1: Bocking Mill, see page 9

AN INTRODUCTION TO THE INDUSTRIAL ARCHAEOLOGY OF ESSEX

The area that constitutes the present County of Essex, its more western Boroughs now in Greater London, is mainly a rural agricultural county both traditionally and to the present day. Its coastline, which has many river estuaries and creeks, is said to be the longest in Britain and has been the base for a fishing industry for many centuries. Essex has no deposits of coal or metal ores on which to base heavy industry and there is no stone apart from chalk in the north-west and the south-east. This absence of building stone has resulted in the characteristic timber and brick buildings of the county. Between the chalk outcrops the underlying geology of the county is clay, hence the early and continuing manufacture and use of brick and tiles for construction purposes. The clay is overlain with glacial and alluvial deposits on which arable and dairy farming has developed, while the coastal marsh areas traditionally supported grazing.

MILLS

Traditional industrial activity stems from the farms and fisheries of the county and the milling of grain is one of the oldest, many watermills having been recorded in Domesday, while windmills were introduced in the late twelfth century and tide mills on the tidal creeks were also built. Working examples of all three types of mill survive (many restored by the County Council itself) alongside the many which have been converted to residential and other new uses. Watermills also served other industries as fulling mills and gunpowder manufacture, particularly at the Waltham Abbey gunpowder works. The industrial revolution period provided a new and more reliable source of power for the mills, steam engines being introduced both as a back-up in times of light winds or sluggish water flow, and also as the sole source of power as existing mills were adapted and new mills built to use steam power. Another development from the 1870s onward was the introduction of roller milling.

OTHER AGRICULTURAL INDUSTRIES

Other examples of agriculture based industry include jam making (the famous Tiptree and Elsenham jams, only the former of which is still made in the county); sugar beet processing which ceased at the end of the twentieth century; market gardening including the development in the inter-war period of Land Settlement Association sites for unemployed industrial workers mainly from the north of England; and even the ripening of bananas. The application of factory style production was introduced to agriculture at the end of the eighteenth century with the development of model farms. Brick, industrial style buildings around a central yard, steam power and process flow around an integrated site resulted in greater efficiency.

MALTING AND BREWING

Malting and brewing were major industries in Essex serving both the local market and also nearby London. Malting took place on farms, and most villages and market towns had at least one malthouse. Brewing developed from the activity in medieval communities, on the large farms and estates and at public houses until the rise of common brewers in the second half of the eighteenth century. The nineteenth century saw the development of the multi-storey malthouse and the integrated industrial scale brewery on far fewer sites and often linked to good transport routes such as via the coast to the Thames and London, inland navigations such as the Stort and the railways. Malting now survives in modern plant at Witham and on two sites in Mistley, while the last commercial brewery, Ridleys, closed in 2005, although the county has a large and growing number of micro-breweries. One interesting related site is the former Isinglass factory in Coggeshall, originally a tannery, from the mid nineteenth century it was used for the production of isinglass from the swim bladders of fish used to clear beer. There was a distillery in Colchester from 1812 and Gilbeys gin was made in Harlow from the 1950s.

ENGINEERING

The stimulus for the development of the foundries and engineering industry was again agriculture. The need for machinery for the dozens of water and windmills resulted in many millwrights establishing their own foundries (such as Hunt's at Earls Colne) and the need for ploughs etc. led to the development of the agricultural implement manufacturers. The first foundry in the county was established in 1792 in Colchester, with most developing during the first half of the nineteenth century. As well as producing a wide range of gearing for the mills and agricultural implements, such as Bentall's patent 'Goldhanger Plough', these foundries also produced structural ironwork for malthouses and breweries, cast iron arches for road bridges, mileposts and drain covers. Some specialised: the Colne Valley Iron Works in Halstead in stoves and Crittall Manufacturing Co. of Braintree in metal window frames, although they also produced other structural ironwork including the footbridge at Witham Station. Another specialism that developed was the production of steam powered farm machinery such as threshing machines and the Darby Patent Broadside Steam Digger. Davey and Paxman at their Standard Ironworks in Colchester began by making steam engines and boilers before moving on to the production of diesel engines. In 1899 the Hoffman Manufacturing Company established a large multi-storey factory in Chelmsford to produce precision steel bearings.

TEXTILES

Production of woollen cloth can be traced back to Roman times and in the mid sixteenth century Dutch immigrants introduced what was to become the main cloth produced in Essex, 'bays' (from which baize is derived) and 'says' (a type of serge). These were light, loosely woven cloths similar to worsteds and which needed fulling, hence the number of water powered fulling mills in the county. The main centres for the trade were Colchester, with its Dutch Quarter, Braintree and Bocking, Coggeshall and Halstead. The industry experienced booms and slumps throughout the 1700s but by the end of the century was in serious decline with potentially disastrous effects on the local economy. However the silk textile industry neatly filled the gap created, as the east London silk producers sought a skilled workforce and room to expand in order to survive themselves. The main centres for silk production were the same as those for wool with people like John Hall in Coggeshall and also Chelmsford, Walters and Warners in Braintree, where the principal Essex silk firm of Courtaulds also became established, having major sites also in Bocking and Halstead. One of Courtauld's main products was mourning crape that was very fashionable in the Victorian era, but lost favour at the end of the 1800s. The company survived this decline in demand for its product by diversifying into the production of artificial fibres.

EXTRACTIVE INDUSTRIES

Essex, in simple terms, is a bowl of chalk which comes to the surface in the north and south, the bowl being filled with clays and brickearths. Bricks and tiles have been made in the county since Roman times and the industry at its greatest extent was to be found in the vast majority of parishes. The twentieth century, however, saw a considerable decrease in the number of brick works so that today there are only two brick works still operating. The chalk was quarried in both areas where it out-cropped, around Saffron Walden in the north-west and most extensively in the south-west in the Grays area. Tramways were a particular feature of brick works and the quarries, both internal systems, but also external tracks leading to other transport links such as creeks and railways.

2 TRANSPORT – ROADS, PORTS, INLAND WATERWAYS, RAILWAYS

Turnpike roads were established relatively early in Essex with that from London through Chelmsford, Witham, and Colchester to the port of Harwich being laid out in 1695. In 1702 the turnpike from London

TE6.4: The man-powered Treadwheel Crane of 1667 formerly in the Royal Navy Dockyard at Harwich, moved to Harwich Green in 1932.



to Harlow was established and this route was extended later in the century, in part to facilitate the movement of barley and malt to the capital.

The rivers Stour, Colne, Blackwater, Crouch and Thames were all navigable some way inland from the North Sea coast and stimulated the development of numerous trading and fishing ports such as Mistley, Colchester, Wivenhoe, Brighthlingsea, and Maldon. The Chelmer and Blackwater Navigation from Chelmsford to Heybridge Basin opened in 1797 and remains navigable for leisure craft today. The other two inland navigations in the county are the Stour and the Stort, although both serve as the county's boundary with Suffolk and Hertfordshire respectively and hence are not fully in Essex. The Stort Navigation from Bishop's Stortford to the River Lea was opened in 1769, while the Stour Navigation from Sudbury to Manningtree was opened in 1713.

In 1836 the first two railways in the county were authorised – the Eastern Counties Railway (ECR) from London to Chelmsford, Colchester and onto Suffolk and Norfolk, and the Northern and Eastern Railway from London via Harlow to Cambridge and the north. Both lines opened in stages up to 1845 by which time the ECR operated both. Over the next four years three branches from the Colchester line were built and between the mid 1850s and mid 1860s there was a second spate of railway development including the lines through Saffron Walden, the Dunmow and Braintree branch and the London, Tilbury and Southend Railway. The 1880s saw further developments as the Great Eastern Railway sought to fill in gaps in the county's network. The final phase of rail development took place in the early twentieth century and was characterised by the construction of a number of light railways including that to Thaxted and the Corringham Light Railway. The Beeching report inevitably spelt the end of many of the branches but those serving commuter towns and seaside resorts survive.

ELECTRONICS

Guglielmo Marconi came to Britain in 1896 seeking backers for his wireless telegraphy apparatus and following success opened the first radio equipment factory in Chelmsford in a former silk mill in Hall Street in 1899. This established Chelmsford as the 'birthplace of radio' and Marconi's company developed factories, research centres and transmitter sites across Essex, including a small broadcast hut in Writtle. The first public radio broadcast was made from the New Street, Chelmsford site in 1920. Marconi's went on to make radar and other defence equipment and in the post-war period became part of larger electronics companies, finally becoming part of BAE Systems. Crompton's, who manufactured electrical components, started in Chelmsford in 1878.

PUBLIC UTILITIES

The earliest gas works in the county were in Colchester in 1817 and Chelmsford in 1819 and were private companies that sold their gas to the local authorities and, along with the by-products, to other businesses. There was then a gap before gas works were established in other major towns in the 1830s, such as Saffron Walden where some of the 1836 works survives. The presence of electronics companies in Essex stimulated the electricity supply industry and Chelmsford was first lit by electricity in 1890 after the local authority had contracted with Crompton's for the supply. The first water company was established in Colchester in 1808 and following the Public Health Act 1848 a number of Local Boards were set up, the first being in Chelmsford followed by the other major towns. As well as the undertakings set up in a particular town, companies also developed to supply a greater area



M5.2: The Maldon Ironworks Co. premises probably of 1876

of this mainly rural county. These waterworks companies developed large supply systems involving pumping stations to extract water and move it from source to treatment works and storage in either a reservoir or water tower and finally to the customer. Much evidence of these supply systems survives in use; the pumping stations, water towers and reservoirs, and some redundant ones have been adapted to new uses.

INDUSTRIAL COMMUNITIES

In a rural county of scattered population, providing housing for the workforce has been a long tradition from the large estates providing cottages for agricultural workers to the isolated brick works which needed attract workers with the offer of accommodation. Some companies had a major impact on the settlements in which they were situated by providing a large number of houses and other community facilities, such as Hunt's in Earls Colne and Courtauld's in Halstead. The county has also seen the establishment of two company model villages. Silver End was built in the inter-war period by Crittall's as a self-contained company village of houses, shops and community facilities as well as a metal window factory. East Tilbury was built from the 1930s through to the 1960s by the British Bata Shoe Company, again with houses, shops, community facilities and the factory site.

SCOPE OF THE GAZETTEER

This gazetteer covers the current administrative County of Essex, therefore not those areas historically part of Essex but now the eastern Boroughs of Greater London, but including the Unitary Authorities of Thurrock and Southend-on-Sea. It offers a wide range of sites covering both traditional industries and those of the twentieth century, plus the transport infrastructure. It concentrates on what is now rare, unusual and of regional and national significance. There are literally dozens of former watermills, windmills, malshouses and breweries in the County in various states of preservation and adapted to various new uses, but the gazetteer does not attempt to cover them all, rather to use those that tell the story of that industry's development and are worthy of a visit and study.



B3: Former British Explosives Syndicate factory site at Pitsea, Basildon District (see right)

Basildon New Town was developed after the Second World War following the New Towns Act of 1946 as an overspill town to ease overcrowding in London, along with other orbital developments such as Harlow. In 1949 Basildon was officially designated a New Town, with Nevendon being an industrial area with the first new factory operational as early as 1951. Bonallack coachbuilders were one of the first big names to move to Basildon in 1953, followed soon after by the Ford Motor Company, who opened a purpose built radiator plant in 1957, while Marconi's developed a number of sites in the 1960s.

B1.1 ELECTRONIC ENGINEERING FACTORY

Christopher Martin Road, Basildon
TQ731910

★

This factory was developed in the 1960s by Marconi Airadio Division of the Marconi Avionics Group, but was acquired by BAE Systems in 1999 when the front office building was re-clad. To the rear of the front building are a number of other 1960s workshops of concrete and brick construction. Radio and navigation products are designed and built for the civil and military aviation sectors.

B1.2 ELECTRONIC ENGINEERING FACTORY

Compton Close, Basildon
TQ696894

★

In the 1960s Marconi Commerce Services Ltd built this office and production unit. It is concrete framed with brick and part glazed alternating panels.

B2.1 ELECTRONIC ENGINEERING FACTORY

Radford Crescent, Billericay
TQ670953

★

In 1965 Marconi Specialised Components Division moved to this purpose built factory from a site in Writtle. It remained in operation until the late 1970s when it was adapted to other manufacturing purposes.

B2.2 WATER TOWER

Albion Court, Billericay
TQ674941

★

This 1939 reinforced concrete water tower comprises a circular water tank supported on a circular central core and twelve columns. There is also a circular base structure covering the

whole of the ground plan of the tower. There is a ring beam between the columns at tank soffit level. The tower is surrounded by a later development of sheltered housing for the elderly.

B2.3 WORKHOUSE

Norsey Road, Billericay
TQ678952

★

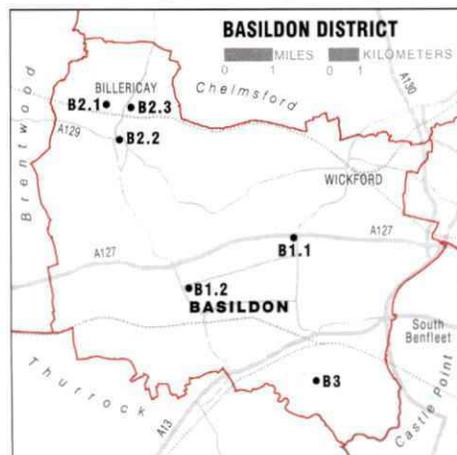
Erected in 1840 to plans by George Gilbert Scott, based on Kempthorne's standard plan, the main H-shaped workhouse comprises a symmetrical two-storey central range with single-storey cross-wings, one of which contained the Chapel and the other the Board Room. The central Master's block is two-and-a-half storeys high and the whole of this original building has been converted to residential use. Apart from the Porter's Lodge all other buildings have been demolished since the closure of the hospital that used the site.

B3 EXPLOSIVES WORKS

Pitsea Hall Lane, Pitsea
TQ738863

□ ★

Originally grazing marshes and tidal creeks, which saw fishing, especially oysters, the British Explosives Syndicate set up a factory here in the nineteenth century manufacturing nitro glycerine based explosives. In 1920 the site was taken over by the Nobel Explosives Company and during the Second World War the MOD owned the site. Evidence of all three phases of ownership survive in the form of the buildings, blast mounds and pill boxes. The site is now the Wat Tyler Country Park, named after the leader of the 1381 Peasants' Revolt, which began in near-by Fobbing.



BT1.1 SILK MILL

South Street, Braintree
TL758229



As the firm of Courtauld, Taylors and Courtauld found success in the early nineteenth century, they sought sites for new silk mills and built a horse-powered mill on this site in 1818. As they soon secured water-powered mills elsewhere they sold Pound End Mill to Daniel Walters in 1822. This is a three-storey mill with a red brick ground floor, the other two being of white weatherboarding all under a slate roof. Internally the timber framing survives. The ground floor has eight windows of early 19th century vertical sliding sashes with glazing bars. The upper storeys have windows extending the full length of the building on both long sides. As Walters developed the adjacent



BT1.4, Weavers' Cottages, South Street, Braintree

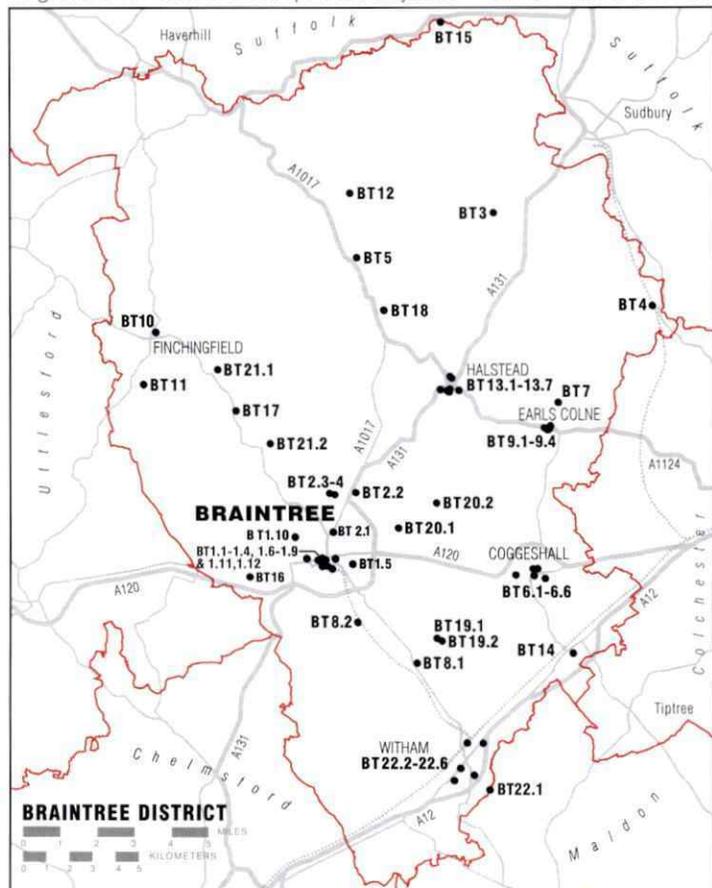
New Mills site, this mill became used solely as a warehouse. The building remains intact but is currently vacant.

BT1.2 SILK MILL

New Mills, South Street, Braintree
TL758228



Daniel Walters' silk weaving business had been in Braintree since 1821 and in the late 1850s developed this complex of weaving mills. The buildings have red brick plinths, but the majority of their structure is white weatherboarding under slate roofs. The fenestration consists of long horizontal windows extending the full length of the buildings, with cast iron glazing bars. Internally there is a light iron framework with cast iron columns. In about 1875 power-looms were introduced, including some Jacquard looms, steam power being supplied by a single cylinder, horizontal, flat-bed steam engine in an engine house in the yard. Drive was transferred to the line-shafting in the mills via tunnels between the engine house and mills. Walters' business went into liquidation in 1894 and the mills were bought by Warner and Sons who reverted to



BT1.2: Silk Mill,
in South Street,
Braintree



just handloom weaving until 1918 when steam power was re-introduced. This was superseded by a 60 hp Crossley gas engine and electric power was introduced in 1936. Developments in the first half of the 20th century included a dye-house in 1920s and a new power-loom weaving shed in 1936; both were enlarged in 1949. The mill ceased operation in 1971 and in 1975 the engine house was demolished, but otherwise the two main mill buildings remain intact and now are in commercial use and part houses the Warner Archive.

BT1.3 WATER TOWERS

Blyth's Meadow, Braintree
TL758232

★

The site consists of two water towers, the first built by the Local Board of Health in 1880 and a newer replacement of 1928. The 1880 tower is octagonal in plan, about 20 metres high and in polychromatic brickwork supporting a 45,000 gallon tank. The 1928 tower comprises an enclosed 12 sided tank above an open brick

colonnade with a square central core. Both have been converted to office and residential use.

BT1.4 WEAVERS' COTTAGES

118, 120, 141-145 South Street, Braintree
TL760228 & TL761229

★

These five houses, a pair and a terrace of three, are among the last remaining weavers' cottages built in association with the Walters New Mills further along South Street to the west. Nos. 141 and 145 have a single storey extension to the side which was the original loom room. No. 141 has a modern two storey extension to the side incorporating the original loom room. No. 120 however retains the loom room and probably the original small paned window.

BT1.5 COMPANY HOUSING

Clockhouse Way, Braintree
TL771230

★

The post WWI housing boom saw a vast increase in the demand for window frames and accordingly

B1.5: Crittall's first
Company housing,
built of concrete
after WWI
photo: Essex CC



BT2.2 WATER TOWER

Lyons Hall Road, Bocking

TL773260

★

This is the site of the 1928 water tower built for Braintree Rural District Council. It is in the campanile style comprising a high plinth in riven ashlar, a red brick tower, an iron tank painted in red oxide and a copper covered pavilion roof surmounted by a wooden louvered turret, itself having a copper covered pavilion roof with a weather vane at the apex.

BT2.3 WORKERS' HOUSING

Church Street, Bocking

TL761260

★

Five pairs of semi-detached houses built by Samuel Courtauld and Co. for workers from the nearby Bocking Mill. Plaques in the paired gables indicate builder, 'SC and Co', and date, 'AD 1872'. Designed by John Birch in a very decorative style including bargeboards, some with ball pendants and wrought-iron finials and windows with cast iron decorative glazing bars in octagonal patterns, a style used elsewhere by Courtauld. Further south on Church Street is the Village Hall of 1926 and Workman's Hall of 1884, both funded by Courtaulds.

BT2.4 WINDMILL

Church Street, Bocking

TL763260

□ ★

This is the second oldest surviving windmill in Essex having been built in 1721 and moved to its current site in 1830, one of many such post mills to have been moved. In 1898 a pair of steam driven stones were installed in the round-house so that milling could continue even when there was no wind. In 1929 the Parish Council was given the mill which raised the funds for its



BT2.3: Courtauld workers' housing, Bocking

preservation. Braintree Council still owns and maintains the mill.

BT3 BRICK WORKS

Bulmer Brick & Tile Co., Hedingham Road, Bulmer

TL833382

□ ★

A brickyard was operating here by 1844 and the same family continued the business until the First World War. It then passed through other owners before the Minter family bought it in 1936 and they still run it as the Bulmer Brick and Tile Company. Traditional methods are used to produce a range of bricks and tiles, but they specialise in a large range of shaped and decorative bricks, especially for restoration work on old buildings, with many high profile customers. Structures on site include the drying sheds and two 1930s kilns.

BT4 MALTHOUSE

Maltings Close, Bures Hamlet

TL902340

★

The Railway Maltings was built in 1851 and is H-shaped in plan having a three-storey central



BT2.4: Bocking Windmill

range of drying floors and kiln area, and two-storey cross-wings which have taking-in doors on both floors. The slate covered pyramidal kiln lies at the end of the central range, between it and one of the cross-wings. Now converted to residential use.

BT5 HERITAGE RAILWAY

Yeldham Road, Castle Hedingham

TL773362

□ *

The Colne Valley Railway has been reconstructed on the line of the former Colne Valley and Halstead Railway track bed at Castle Hedingham. The original railway opened in phases from 1860 to 1863, partly engineered by Joseph Cubitt and closed to passengers in 1961 and freight in 1965. In 1975 the preserved section was opened and the station building from Sible and Castle Hedingham was re-erected here in 1975-6.

BT6.1 BREWERY

Little Coggeshall Brewery, Bridge Street, Coggeshall

TL849224

*

William Gardner owned the land on which this brewery was built by 1827 and he is listed as a brewer and maltster in 1839, having also built the adjacent malthouse, now known as Riverside Maltings. He traded until his death in 1877 and the business was continued by his widow and son as E. Gardner and Son. Brewing had already ceased when Greene King and Son Ltd leased it in 1941 and they closed it two years later removing some of the equipment. Since closure as a brewery the structures have been in light commercial use until a recent sympathetic conversion to private residential use.



BT6.2 BREWERY

Church Street, Coggeshall

TL851227

*

Although some of the structures on the site date from the 17th century, brewing began here in the early nineteenth century. John Beard managed the business from 1857 until his death in 1905 when it was sold to Charrington Nicholl and Co of Colchester who sold it the following year. As well as the brewhouse and offices there was a malthouse in the complex, now demolished, and a range of buildings which probably included stables and a counting house which remain at the rear accessed through an archway. The site is now the Conservative Club.

BT6.3 BREWERY

Stoneham Street, Coggeshall

TL850227

*

This is the site of the Coggeshall Brewery dating from the early nineteenth century and from 1855 George and Isaac Beard were brewing here. By 1899 William Bright had joined in partnership with Beard and from 1925 the business was in the ownership of London Breweries. The brewhouse and offices are now private houses and the malthouse, which is a community hall, is to the rear.

BT6.4 FOUNDRY

Bridge Street, Coggeshall

TL850225

*

The Coggeshall foundry was founded by William Kirkham and Chas. Newman in 1816 and the business was carried on by R.M. Kirkham until c.1887. The building is partly brick built, timber framed and weather-boarded, with gable ends. A single-storey cart shed and a small weather-boarded office complete the complex. This is the only standing small rural nineteenth century foundry in Essex and is now in use as a private house.

BT6.5 ISINGLASS FACTORY

West Street, Coggeshall

TL842225

*

This is on the site of an eighteenth century tannery with central tanyard. A purpose-built factory for the production of gelatine and isinglass was built on the site in 1847-8 and greatly expanded in 1875 incorporating some of the original tannery buildings. The isinglass factory operated by James Vickers Ltd. until 1997. The site has been redeveloped for residential purposes.

BT6.1: Little Coggeshall Brewery



right: BT9.1: Hunt's Atlas Works, agricultural machinery manufacturers' iron works at Earls Colne
far right: BT9.3 Workers' Housing at Earls Colne

BT6.5: Former Isinglass factory in Coggeshall

BT6.6 WATERMILL

Abbey Lane, Coggeshall

TL856222



This site has a long and varied social and industrial history, being the site of the Coggeshall Cistercian Abbey and Abbey Mill dating from the twelfth century. In the early seventeenth century a fulling mill built by Flemish refugees served the Coggeshall woollen cloth industry. The present mill was built in the mid eighteenth century as a weaving mill and became a silk throwing mill in c1820. It is timber-framed and weather-boarded and has a breast-shot wheel. The windows of the upper storey are designed for the weaving activity being along much of the length of the mill, with small panes. In c1840 it was converted to corn milling. It was adapted for steam power in the mid nineteenth century and the engine house and chimney remain although the equipment has been removed and the chimney, which has a square base and round flue, reduced in height. The mill operated until c1960 and remains largely intact as one of the largest and best preserved mills in the county.

BT7 WATERMILL

Mill Lane, Colne Engaine

TL860299



Overshot Mill was built as a fulling mill in 1643 but converted into a corn mill between 1787-1810. Between the wars the mill was used for horse feed and for driving a dynamo which powered the mill and the adjacent farm. During this period the iron waterwheel became very corroded and by 1965 it was replaced with a second-hand Gilbert, Gilkes and Gordon turbine. The mill and its granary are grouped close together and form part of a wider complex of buildings including a farm, Overshot Mill House and Mill Cottage. The mill has a red

brick ground floor and two timber-framed and weather-boarded storeys above. Central to the roof is a weather-boarded lucam with a gambrel plain tile roof and curved brackets which projects to the roadside. A taking-in door (now part blocked and converted into a window) was located directly below the lucam on the first floor. The mill has been in to residential use for at least 30 years.

BT8.1 FARMSTEAD WITH MALTHOUSE

Cressing Temple, Witham Road, Cressing

TL799186



The twelfth century Cressing Temple site was the headquarters of the Knights Templar in England. The two barns and the well that survive on the site originate from this period. The Wheat Barn and the Barley Barn are the two finest Templar-built barns in Europe while the Barley Barn is recognised as the oldest timber-framed barn in the world. The seventeenth century timber framed Granary is weather-boarded at ground floor level with rendering above. The remains of a stone, brick and flint built steeping tank and its brick-built sluice and drain have been found and seventeenth century documents refer to a malting on this site which appears to have gone out of use in the early nineteenth century.

BT8.2 WATER AND STEAM MILL

Bulford Mill Lane, Cressing

TL774205



There has been a mill on this site since Domesday, a fulling mill being here when acquired by Joseph Savill in 1804, who introduced corn milling but continued with fulling and also spinning. In 1813 he sold the mill which was converted to just corn milling. A steam engine and house were added by 1862, in 1892 rollers, working with and not replacing the stones, were installed, and in the following



year a turbine replaced the 18ft diameter overshot waterwheel. In 1947 the then owner closed down all milling operations but adapted the turbine to generate electricity for his estate. In 1992 the mill was again sold and sympathetically restored to its present condition for residential use. The site also includes the mill leat and sluices, a brick built granary, the mill house, with a range of stables, cart lodge and barns. Although the mill is now in residential use much of its heavy machinery, fixtures, fittings and equipment remain intact along with miller's tools.

BT9.1 IRON WORKS

Foundry Lane, Earls Colne
TL854288



Robert Hunt set up his millwrights business in Earls Colne in 1825, then began ironworking and by 1851 his agricultural machinery business was developed enough to be exhibiting at the major shows and he won a medal at the Great Exhibition. His son Reuben took over the business and he rapidly expanded the Atlas Works site in the 1860s into one of the largest and most important iron foundries in Essex. It specialised in the production of agricultural machinery and produced such items as winnowers, chaff cutters, clod crushers, horse gears and threshing machines. The site closed in 1988 and has been redeveloped for commercial and residential use. All that survives of the original buildings are the Watch house, canteen, hay loft and stores, office, machine shop façade and foundry façade around the courtyard and the water tower.

BT9.2 CRAPE FACTORY

Foundry Lane, Earls Colne
TL857288



Courtaulds built a winding and drawing mill here in 1883 during the boom period before the demise of mourning crape in the following decade. Steam power was used from the beginnings of operation. Weaving was also undertaken here from the late 1890s and it became one of the locations for the



weaving of the new artificial silk in the twentieth century until it was closed in 1925. It was originally equipped with machinery made in the Hunts Atlas Works on the other side of Foundry Lane. The building was then used by Hunts as a store. The building remains in light industrial use and retains its external integrity including the chimney.

BT9.3 WORKERS' HOUSING

Hibernia Cottages and Bellevue Cottages,
Foundry Lane, Earls Colne
TL856287



As Reuben Hunt developed the agricultural machinery business at the Atlas Works, the workforce grew from 50 in 1867 to 200 by 1890 and 290 by 1900. This expanding workforce needed housing, which the company provided starting in 1872 with Hibernia Cottages, a terrace of 12 red brick dwellings with white brick dressings around the doors, windows and as quoins. In 1876 Hunts built Bellevue Cottages, a terrace of 10 cottages of similar architectural style to that used for the adjacent Hibernia Cottages. Other terraces of three and four cottages in each, were erected in 1888, 1897 and 1900 on the west side of Foundry Lane and to the north of Hayhouse Road. More houses were built on a number of other sites within the village including a Garden City style development on the Halstead Road from 1905 - NGR TL848290.

BT9.4 MECHANICS INSTITUTE

High Street, Earls Colne
TL857289



This row of 10 cottages with the Mechanics Institute set in the middle of the row was built in 1854. The Institute is now the village's library.

BT10 WINDMILL

Causeway, Finchingfield
TL687330



Duck End post mill stands in the centre of this picturesque Essex village. Dating from the mid



BT13.1: *Halstead Brewery Chapel*

eighteenth century, its roundhouse was built in 1840 to cover the trestle. It became disused in the 1890s and was restored to a degree in the 1950s. Essex County Council then restored it to its former glory.

BT11 WINDMILL

Mill Road, Great Bardfield
TL681307

★

Built around 1700, Gibraltar Tower Mill may have Seventeenth century origins and is probably the oldest surviving windmill in Essex. Converted to a house in 1957 when the brick work was rendered over.

BT12 SMALL HOLDINGS

Various addresses in Great Yeldham,
Tilbury-Juxta-Clare & Little Yeldham.
TL750390 – TL770400

★

Influenced by the Carnegie UK Trust, the Land Settlement Association Ltd. (LSA) was founded in 1934 with the aim of providing work on small holdings for unemployed industrial workers such as miners, principally from the north of England. In each scheme existing agricultural land was divided into plots of varying sizes and houses, out-buildings, glass houses, piggeries and poultry huts were built. Roads and a central storage and administrative centre were established, the latter usually based on a pre-existing farm. The plots and hence the houses were strung out at wide intervals along the frontage of the roads. 25 of these estates were established nationally with two created in Essex. The houses were designed by architects Pakington and Enthoven to provide adequate accommodation as cheaply as possible according to the requirements of the Housing Act. The Ministry of Agriculture took over the Yeldham estate along with the other LSA estates in 1948, but sold the Yeldham estate in 1957/8 by which time market gardening here had ceased.

BT13.1 BREWERY

Trinity Street, Halstead
TL809305

★

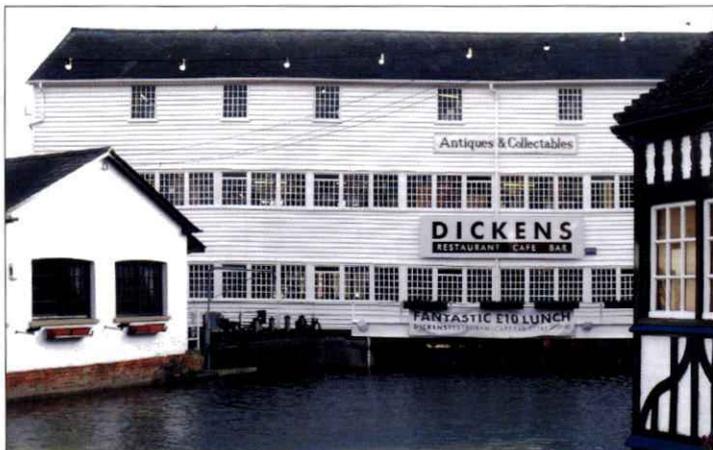
The Halstead Brewery was built in 1859 by Charles Stanton Gray of Chelmsford, but in 1876 was bought by Thomas Francis Adams. On his death in 1878 his sons, Edgar and Percy, continued the business of T. F. Adams and Sons until it was sold in 1939 to Fremfils. In the early 1960s it was no longer needed as a brewery and became a council depot, but has now been redeveloped as housing. At its maximum extent the site consisted of malthouse, brewhouse, boiler and engine house, stable block, stores and offices, plus 'The Cottage' which was the Adams family home. The malthouse, offices and the stores have been converted to residential use and 'The Cottage' remains. The other significant feature of the complex is the adjacent Brewery Chapel, built in 1883 as a memorial to Thomas Adams by his sons as a chapel and reading room, it was rebuilt in 1902 in memory of Thomas and his wife.

BT13.2 SILK MILL

Townsford Mill, The Causeway, Halstead
TL813304

□ ★

The corn mill on the River Colne at Halstead was bought by Stephen Beuzeville who in 1825 engaged Samuel Courtauld to convert it to a silk throwing and weaving mill. When Beuzeville's business experienced financial problems, Courtauld bought the mill in 1828 and it was to become the core of one of the three main sites of the Courtauld business. The original water powered mill dates from 1788, is three storeys high, weather-boarded under a slate roof. It is distinguished by, on the ground and first floors, rows of very close windows each with small panes and glazing bars. The ground floor was used for drawing the silk, first floor for winding and the top floor for weaving. Adjacent to the mill is the mill house of mid to late eighteenth century. Gradually as the Courtauld business grew the factory here was extended. In 1832 a power loom factory was opened, equipped with 106 looms. A second was added in 1836 and another in 1842. Steam power was introduced in 1828 and expanded with the increasing size of the factory and the number of looms. Gas lighting was introduced in 1838 and gas power was installed in 1892, with Crossley gas engines and a producer gas plant being installed in 1894. The use of gas did not last long however and when a further extension to the mill was built in 1905 a new steam engine was installed. The original weather-boarded mill remains astride



the River Colne, currently an antiques centre and restaurant, with the mill house adjacent. To the north of this mill is a red brick range of one of the mid nineteenth century extensions to the factory which is now part of the shopping centre ('Weavers Court'). Also on the site are two small ancillary buildings of red brick and red plain tiles – the small one dated 1904 was the gatehouse and the larger one marked 'SC and Co Ltd 1912' was the first aid building.

BT13.3 WORKERS' HOUSING

Factory Terrace, Factory Lane East, Halstead
TL813305

Built in 1872 by Samuel Courtauld and Co., this housing development consists of a terrace of six and another of 10 three-storey houses. The casement windows have cast iron decorative glazing

bars in octagonal patterns, a style used elsewhere by Courtauld. Each dwelling has a rear extension which was probably originally the toilet and wash house. The factory chimney stood between the two parts of the terrace and just to the rear of them. Plaques inform of the date and builders 'SC and Co' and '1872'. Much of the wall between Factory Terrace and the shoppers car park is part of the original textile factory wall.

BT13.4 WORKERS' HOUSING

The Causeway, Halstead
TL812304

This group of workers' houses consists of a pair of houses and a terrace of 10, all two storey, plus, at the south end, what was a dining room for employees and is now the Royal British Legion Hall. All were designed by George Sherrin for



BT13.3: Workers' housing
built by Courtauld in
Halstead



BT13.5: Workers' housing in Halstead Photo: Essex C C

S.Courtauld and Co., and are in Queen Anne style with Dutch gables and many decorative features such as moulded bricks and shutters. A plaque reveals that they were all built in 1883 for 'SC and Co'. They are parallel to the River Colne opposite the only remaining brick extension to the mill and form a group with that building and the original water mill.

BT13.5 WORKERS' HOUSING

Hedingham Road and Colchester Road, Halstead

TL813310 and TL819305



During the 1920s, and even as late as 1935, Samuel Augustine Courtauld had 45 houses built for company staff, with 25 constructed either side of the Hedingham Road close to those in Box Mill Lane and Mill Chase, the Courtauld Homes of Rest and the Halstead Hospital. Eight were built along Colchester Road close to other sites associated with the Courtauld family and its business: the houses in Mallows Field, the Church, hall and presbytery, and the sports ground. All were built in what became known as 'Courtauld Tudor' style, an Arts and Crafts / Garden Suburb style making use of traditional materials wood, rendering, brick and plain clay roof tiles.

BT13.6 COTTAGE HOSPITAL

Hedingham Road, Halstead

TL814310



Constructed in 1884 and designed by George Sherrin, the cottage hospital was built under the instruction of George Courtauld in memory of his recently deceased wife. The hospital provided accommodation for four men, four women and one child, with a small mortuary and laundry to the rear. The roadside façade has an open timber gable with a dedication inscribed onto the tie-beam over the heads of the first-floor windows 'In Memorium S.L.C 1884'. A free-standing single-storey out-patients department was erected to the south

in 1920 designed by T.W. Cressall which adopts a similar architectural style. The open timber work in a herring-bone pattern together with an inscription dedicated to George Courtauld, 'In Memorium G.C. 1920' are present on the gable. The Courtauld family also funded a number of other community facilities in the town including the adjacent Homes of Rest built in 1923 on the site of the former workhouse.

BT13.7 WEAVERS' COTTAGES

Weavers Row, Halstead

TL817305



There were originally two terraces of silk weavers' cottages here, but just a terrace of twelve remains (the other was of six). Built in the mid-nineteenth century with mansard roofs this is a rare survival of a group of silk weavers' cottages.

BT14 WATERMILL

Swan Street, Kelvedon

TL867190



The earliest reference to Easterford Mill is a Manorial record of 1320 and the present mill was built in the mid-eighteenth century. It is a 2 and a half storey weather-boarded mill with an off-centre gabled lucam projecting to the front. It is unique in Essex in that it has a separate inner timber frame built to support the load of the main machinery, thus leaving the outer walls to just bear the weight of the roof structure. It retains a significant amount of its milling technology, fixtures and fittings including the undershot waterwheel and had the potential to be put back into operational use. Milling ceased in 1929 and it has been recently converted to residential use thus ensuring its survival as one of the most important water powered mills in the county.

BT15 WATERMILL

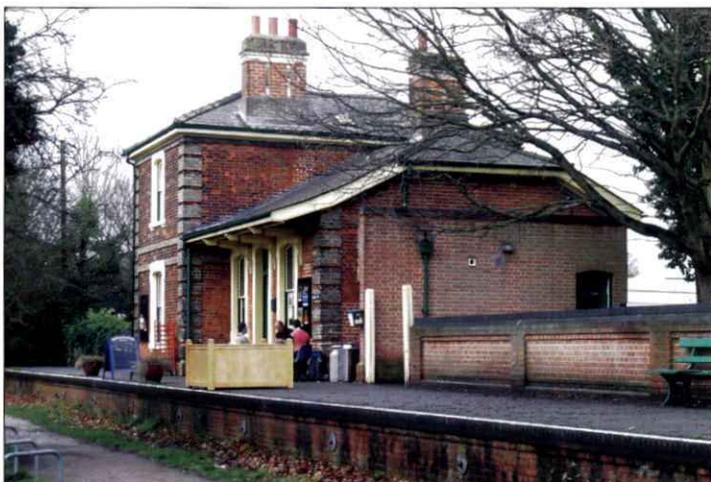
Pentlow Hill, Pentlow

TL809463



On the River Stour, the Suffolk boundary, there has been a mill on this site since Domesday. The current timber framed, brick faced Pentlow Mill dates from the eighteenth century and has an attached mill house. During the nineteenth century the mill incorporated a dairy and a brewery, then with the coming of the railway diversified into milling and a coal merchants, but from the 1870s relied on milling animal feed with a sideline in poultry and eels. Around 1910 the waterwheel was severely damaged in a flood and was not repaired but replaced by a portable steam engine, which in turn was replaced during the 1930s by a paraffin engine. During the 1960s after milling had ceased

BT16: Rayne Railway Station



it was to be converted into a school, but this was not completed and it is now in residential use.

BT16 RAILWAY STATION

Station Road, Rayne

TL726224



The newly formed Great Eastern Railway built the branch line from Bishop's Stortford to Braintree in the mid 1860s and introduced a house-style for the station buildings designed by Robert Sinclair. Rayne Station is a small version of this style, dating from 1866 and comprising: station master's accommodation; booking office; waiting room; porter's room; lamp room and toilets (although the Gents is a 1994 reconstruction). The brick platform survives. The station is now the Fitch Way Visitor Centre and ranger base.

BT17 WATERMILL

Braintree Road, Shalford

TL790295



Wethersfield Mill comprises a possibly sixteenth century timber framed, weather-boarded mill and a late nineteenth century brick built range added onto the rear. The former has a lucam over a taking-in door at first floor level that is now glazed but retaining its boarded door. The brick built addition similarly has a taking-in door, now glazed, but retaining its boarded door. The mill forms part of a small group of buildings which includes an eighteenth century stable, coach house and timber framed barn and a mid nineteenth century mill house built to designs by Fredric Chancellor. The mill and mill house are both in residential use, the mill surviving as one of only eight surviving mills in Essex that were built with an overshot wheel.

BT18 WATERMILL

Alderford Street, Sible Hedingham

TL784339



Alderford Mill dates from the eighteenth century but was extended during the nineteenth century when it was adapted to steam milling. A deed of 1872 records a newly erected engine, a coal store, boiler house and steam engine, together with the necessary driving mechanisms to power two additional sets of stones. During the 1930s the steam engine was dispensed with and a new Rushton and Hornsby oil engine fitted. In the 1950s the traditional grinding methods were abandoned and the mill was converted to use electric crushers for animal feeds. The mill is part brick but mainly timber framed and weather-boarded mill with a plain tiled Mansard roof. The low breastshot waterwheel is cast-iron with wooden paddles. The mill survived unconverted and has been restored by Essex CC's Mill Team, retaining much of the historic technology original to the building. The waterwheel now turns under its own power and is one of a very select number of watermills within Essex that have the necessary gearing and are still capable of working under water power.

BT19.1 METAL WINDOW FACTORY

Boars Tye Road, Silver End

TL810196



Crittalls built this metal window factory in 1926 when the company was developing its model company village at Silver End. Unfortunately most of the original factory buildings, by then derelict, were demolished in 2008, and the whole site awaits redevelopment. The only buildings retained are the 1926 factory building and the

Cubitt. A relatively small bridge of 18ft span with nine segmented cast iron girders resting on brick piers, the name Ransome and Sons Ipswich 1814 is cast on the east face. The bridge was widened to accommodate a concrete pedestrian crossing in 1955.

BT22.3 ROAD BRIDGE

Bridge Street, Witham

TL818141

□★

This cast iron bridge on four brick pillars and with cast iron parapet rails was built in 1900. Circular cast iron disks on the balustrades have the lettering Essex County Council 1900 around the outside and in the centre a shield with three seaxes.

BT22.4 ELECTRONIC ENGINEERING FACTORY

Freebournes Road, Witham

TL828152

★

A purpose built electronics factory of the 1960s for English Electric Valves, which changed its name to Marconi Applied Technologies in

1999 and e2v in 2001. This factory has four inter connected blocks of steel or reinforced concrete frame with cladding and flat roofs.

BT22.5 MALTHOUSE

Maltings Lane, Witham

TL815135

★

This sixteenth or seventeenth century malthouse is timber framed and part weather-boarded, part brick faced. It has two storeys and the kiln with conical roof is set at right angles at the brick faced end. It has been converted to flats, but is one of the best surviving small-scale malthouses in Essex and is one of the earliest surviving examples in the county.

BT22.6 STATION FOOTBRIDGE

Witham Station, Albert Road

TL821152

□★

The lattice span footbridge at Witham Station was built by Crittall Coy, Structural Engineers, Braintree in 1907.



BW1.2: Water tower at Brentwood, see entry on right

BW1.1 PUMPING STATION

Warley Street, Brentwood

TQ593895

★

The South Essex Waterworks Co was established in 1861 and originally operated from a chalk quarry in Grays, Thurrock, but developed the Great Warley Pumping Station in 1882 in response to increased demand for a reliable, good quality water supply. It was built as a lifting station to move water up to Brentwood. The complex comprises a pump house with gantry crane, two single-storey brick buildings (one dated S.E.W.W. 1886), a corrugated iron building with barrel roof and a service reservoir.

BW1.2 WATER TOWER

Eagle Way, Brentwood

TQ591915

★

This site was developed by the then South Essex Waterworks Co as a water storage facility, and now comprises a covered service reservoir and a 1938 reinforced concrete water tower. This has a circular tank supported on a circular central core and 16 columns, which are tied back to the core with ties and struts at two intermediate levels and tank soffit level. There are two ring beams tying the columns together at intermediate levels and at tank soffit level. There is an open concrete balustrade around the top of the tank.

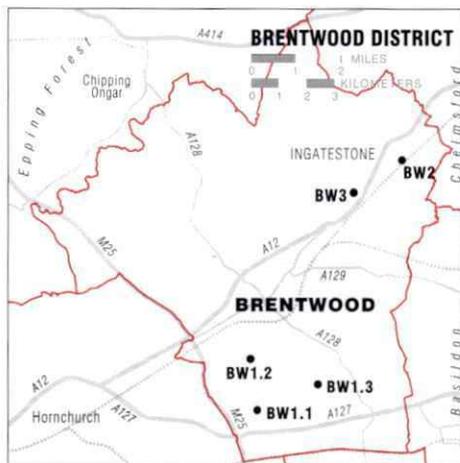
BW1.3 MODEL FARM

Childerditch Street, Brentwood

TQ617905

★

Hatch Farm model farm was designed by Samuel Wyatt in 1776 comprising a barn and a U-shaped yard flanked by single storey ranges all in red brick with slate or pantiled roofs. The barn was a fodder store and was partly converted to a house in the nineteenth century. The single storey ranges were colonnaded feeding sheds with two-storey corner pavilions and central blocks with arched openings. There have been



subsequent alterations and some losses on conversion of the buildings to residential use.

BW2 RAILWAY STATION

Station Lane, Ingatestone

TQ650992

□ ★

The current Ingatestone Station building is the second, but was built in 1846 very soon after the opening of the line. It was restored in 1989 and retains an unmodernised booking hall with timber booking office screen possibly dating from 1872 and an original waiting room fireplace.

BW3 WINDMILL

Thoby Lane, Mountnessing

TQ631979

□ ★

Mountnessing Post Mill was built in 1807, and was in regular use until the mid 1930s. It is a post mill, weather-boarded with a polygonal brick roundhouse base. It was purchased by the Parish Council in 1937 and was one of the first to be preserved in the County. In 1956 the County Council took over ownership, it has been restored to full working order and is open to the public.



BW1.1: Great Warley Pumping Station

CASTLE POINT

SEE PAGE 46 FOR MAP INCLUDING CASTLE POINT

CP1 PETROCHEMICAL WORKS

Haven Road, Canvey Island

TQ776824

★

The petrochemical shipping and storage facilities at Hole Haven were first developed in 1936 when an oil terminal was established. In 1959 a gas terminal with two one thousand tonne capacity storage tanks was constructed at the site alongside the oil terminal. Gas was imported from America and stored before distribution to the rest of Britain via the facilities at Thames Haven and the local refinery at Shellhaven in Coryton. In the 1970s construction began on an oil refinery but it was never completed due to health and safety

concerns. The structures which were built have been removed, including a concrete chimney demolished by Fred Dibnah, and that site is now a nature reserve.

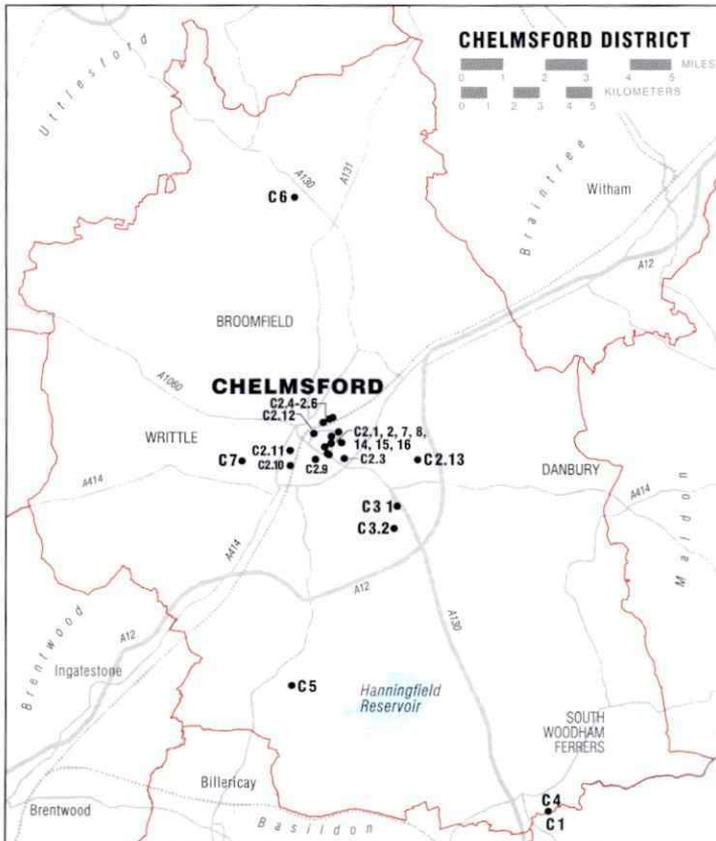
CP2 WATER TOWER

Benfleet Road, South Benfleet

TQ790867

★

This is the site of the water tower of c. 1910, latterly operated by Southend Waterworks Co. The tower is built of red and blue brick in the Romanesque style mimicking a castle tower having crenellations and machicolations on the underside of the panelled parapet. It has been converted to flats.



C1 STEAM MILL

Hawk Hill, Battlesbridge
TQ781947

★

This four-storey former steam mill was built adjacent to its own wharf along the north bank of the river Crouch around 1880. The lower storeys are brick-built and the upper storeys and loft are timber framed and clad in weather-board. A lucam projects out over the river and wharf and there is a full height weather-boarded hoist/elevator bay, now a stairwell. It was enlarged in the early to mid twentieth century following a fire with the addition of a three-storey extension. The building is now used as antiques centre, an adaptation that has resulted in the removal all of its milling technology.

C2.1 BREWERY

Springfield Road, Chelmsford
TL710067

□ ★

This brewery was run by the Gray family for almost 150 years from its founding in 1828 by Charles Stanton Gray to its sale in 1974. It was built alongside and partly upon the site of the Black Boy Inn and brewery. The brewery is a complex of a number of component parts built in a U-shape around a yard open to the road and most of which remain and are identifiable. These are a three-storey malthouse with taking-in door and hoist and pyramidal kiln chimney; a four-storey malthouse

with weather-boarded lucam and a kiln chimney; a four-storey malt Store with taking-in doors; a four-storey brewhouse; a bottling plant; and an office. Steam power was installed in 1860 to operate two well water pumps, the malt mill, mash tun rakes, beer pumps, bottle washers and a boiler force pump. The site is now in use as retail outlets for a number of high street stores.

C2.2 WATERMILL

Victoria Road, Chelmsford
TL713071

□ ★

A mill is recorded on this site in Domesday, the current building dating from the eighteenth century. The twentieth century saw a diversification in uses, firstly for oil seed cake manufacture, then grinding bone for fertiliser and animal feed and finally as a store and for seed cleaning. It is now a public house and retains some of the machinery as features. The building is three and a half storeys high, timber framed and weather-boarded. The eighteenth century mill house survives.

C2.3 WATER & STEAM MILL

off Chelmer Road, Chelmsford
TL717062

□ ★

The first documented reference specifically to a Moulsham Mill is in 1382. Its history is then one of many owners and phases of rebuilding, the last being around 1780. For a while at the start of the nineteenth century it was used as a coal mer-



C2.3: Moulsham Mill,
Chelmsford



C2.5: Former Ball bearing factory in Chelmsford

far right: C2.6: Main entrance of the Marconi Radio factory in Chelmsford

chant's depot, being on the Chelmer & Blackwater Navigation. In 1839 Joseph Marriage junior took over the mill and within a few years built a brick steam mill. He occupied the site until the middle of the century and was followed by William and Henry Marriage, millers and coal merchants. The steam mill was rebuilt in 1878 and then converted to roller milling in 1891 and continued producing flour until 1958 when all business was transferred to Marriages Chelmer Steam Mill. All the buildings lie within the Chelmer and Blackwater Navigation Conservation Area and include the mill, two mill houses, an engine house and a stable range. The mill in fact comprises two mills built in parallel: the late eighteenth century timber framed and weather-boarded water mill and the nineteenth century brick built steam powered roller mill. The mill was converted for and is presently in use as a craft and business centre.

C2.4 STEAM ROLLER MILL

New Street, Chelmsford

TL712075



In 1898 W. and H. Marriage & Son engaged local architects Fredric Chancellor & Sons to design a new steam powered roller mill and so construction began in 1900 of the Chelmer Steam Mill. The mill remains in the ownership of the Marriage family who successfully continue in the business of flour milling, being one of the largest millers in the eastern region. The nineteenth century mill building still stands on site although it now forms part of a large modern milling complex comprising huge production buildings and flour silos, modern steel clad reception and processing ranges. The dominant feature of the building is an integral seven-storey square plan silo tower which rises above the roofline and is capped by a hipped roof sheltering a water tank in the upper



C2.4: Marriage millers steam roller mill in Chelmsford

far right: C2.7: The first Marconi Radio factory, built as a warehouse, in Chelmsford

stage. 'Marriage Millers' is displayed in large white letters on the south facing wall of the tower just below the roof eaves. Chelmer Mill survives as the only working example of a former steam mill and one of only two surviving mills in Essex, the other Langford watermill, to be built by F. Chancellor and Son.

C2.5 ENGINEERING WORKS

New Street, Chelmsford

TL710074

★

Geoffrey and Charles Arthur Barrett formed an unsuccessful ball bearing manufacturing business in Chelmsford by 1896 but had a problem producing truly circular balls. However a Swiss-American inventor Ernst Gustav Hoffmann had patented a method which addressed this problem and the Barretts persuaded Hoffmann to work with them in Chelmsford. In 1898 a new factory and company named the Hoffmann Manufacturing Company was established on an extensive site in New Street. The original factory comprised a number of production buildings (many now demolished) and two large five-storey factories. By 1903 Hoffmann dissolved relations with the Barretts, but the company in his name continued to grow based on the demand from railway, motor vehicle and aircraft industries. The site is now part of Anglia Ruskin University.

C2.6 RADIO FACTORY

New Street, Chelmsford

TL708073

★

Marconi's left their Hall Street factory for this purpose built factory opened in 1912. It was a large site with the workshops behind the offices on the New Street frontage, power generation on the Marconi Road side and the open ground not covered in workshops was used for radio masts. The world's first public radio broadcast was made from this site by the opera singer, Dame Nellie Melba in 1920. The New Street frontage has a centrepiece over the entrance on which is the name 'Marconi' in gilt letters and the whole is surmounted by a domed clock tower with weather vane. The site had its own railway sidings. Over the years there have been many additions and alterations, but the site is now disused and awaiting redevelopment

C2.7 RADIO FACTORY

Hall Street, Chelmsford

TL709064

★

This site is one with a long and varied industrial history. Built originally as a warehouse for John Hall's silk business in 1861, as his business



falted he sold it to Samuel Courtauld and Co. in 1865. Courtaulds used it as a silk mill until 1894 when that business was also suffering from changes in the silk industry. It then became Marconi's first radio factory from 1899 to 1912. Latterly it was the headquarters of the Essex and Suffolk Water Co., but is now vacant along with the site of the adjacent waterworks. A blue plaque records the association with Marconi.

C2.8 WATERWORKS

Hall Street, Chelmsford

TL709063

★

The Chelmsford Local Board of Health set up in 1850 developed this site in the 1850s over an artesian well and a 120,000-gallon reservoir of brick and cement with a galvanised iron roof was built to store the water from this well and that at Burgess Well. The pumping station housed Galloway horizontal boilers and two beam engines. The site of the reservoir is now empty, but the buildings of the





C2.9: Crompton's works in Chelmsford

waterworks survive on the edge of the site.

C2.9 ELECTRICAL ENGINEERING WORKS

Anchor Street, Chelmsford
TL705061

★

The Anchor works was originally an early nineteenth century ironworks, but was acquired around 1878 by R.E.B. Crompton, the pioneer of electrical components. The site became known as Crompton's Arc Works where arc lights and dynamos were manufactured. Following a fire in 1895 Crompton's moved to a new factory in Writtle Road and this site was slit into two, with steam cars being built in one part and the other being the power station for the Chelmsford Electric Lighting Co Ltd. Much of the site has been redeveloped as housing, but the Anchor Street building, part of the power station built in 1902, is being redeveloped.

C2.10 ELECTRICAL ENGINEERING WORKS

Writtle Road, Chelmsford
TL698060

★

Crompton & Co moved to this purpose built factory in 1896 following the fire at the Anchor Street works and was again known as the Arc Works for electrical engineering. The site was developed over the next four decades or so up to the Second World War, after which it was acquired by Hawker Siddeley and then Marconi Electronics for the manufacture and testing of radar equipment. The works were closed in the early 1990s and the buildings fronting Writtle Road are now used by the NHS.

C2.11 ELECTRICAL ENGINEERING WORKS

Waterhouse Lane, Chelmsford
TL697064

★

The English Electric Valve Co established this site

in around 1942 to manufacture electrical valves and magnetrons. Between the road and the main works buildings are the remaining buildings of Waterhouse Farm, including an extant barn, and a row of houses. The utilitarian sheds of the works were extended a number of times during the Cold War period. The site is still operated by E2V.

C2.12 CONDUIT

Park Road, Chelmsford
TL705070

□ ★

Two tablet stones mark 'Conduit Pipes' of c1800 marking the route of the town water supply from Burgess Well to the conduit head in Tindal Square. The conduit head has been rebuilt and moved on a number of occasions and since 1940 has been in Tower Gardens on the Roxwell Road (TL693074).

C2.13 WATERWORKS

Sandford Mill Road, Chelmsford
TL738061

□ ★

This is the site of the Chelmsford Corporation Waterworks, acquired in 1923, completed in 1929, and extended and modernised in 1955. This extensive site, on land between the mill stream and the Chelmer and Blackwater Navigation, consists of a number of buildings including a large pre-war structure which has the name of the undertaking on its east façade, as well as areas of water probably from the former treatment works. The waterworks became uneconomic in the 1980s and the site was bought back by Chelmsford Borough Council from the Essex Water Co. It is now the site of a museum, although some important waterworks structures survive.

C2.14 RAILWAY VIADUCTS

Parkway, Chelmsford
TL702066 – TL707072

□ ★

The Eastern Counties Railway from London to Colchester opened fully in 1843, the Chief Engineer of which was John Braithwaite. As it crossed a number of river valleys a number of bridges and viaducts were needed, including two in Chelmsford. The larger is that over the River Can valley at 647 feet long and 44 feet high. There is then an embankment before the second, the Station Viaduct, which, as the name suggests, is also the site of the station. Both are built on a continuous curve. Chelmsford Station retains its 1899 signal box built on a very tall brick base alongside the viaduct, now disused, and a low water tank of 1881. The original 1843 island platform was lost during re-modelling of the station in 1856.

C2.15 ROAD BRIDGE

New London Road, Chelmsford
TL708066

□ *

Built 1890, this single span cast iron bridge replaced an earlier bridge of 1840, damaged by traction engines and then destroyed by floods. It has six iron elliptical arch ribs, each cast in 4 pieces and bolted together.

C2.16 NAVIGATION BASIN

Wharf Road, Chelmsford
TL713067

□ *

The Chelmer and Blackwater Navigation was constructed between 1793 and 1797, John Rennie being the Chief Engineer. It runs from Springfield Basin in Chelmsford to the sea lock at Heybridge Basin, near Maldon, and the full length is now a Conservation Area. The navigation is managed by Essex Waterways Ltd, a subsidiary of the Inland Waterways Association. Springfield Basin retains some of its original buildings including a nineteenth century timber warehouse and dwelling, and early to mid twentieth century sheds and warehouse.

C3.1 BREWERY

Church Street, Great Baddow
TL732046

*

The brewers Crabb, Veley and Co had a new integrated brewery complex built here in 1868. Additions in 1878 were designed by the brewers' architect George Scamell, with further additions in 1902, by which time it was known as the Baddow Brewery Co. The prominent plaques containing 'C's and 'V's testify to the original partnership. The business was taken over by Seabrooke and Sons of Grays in 1927. Many of the structures remain in tact and in use for retail purposes. The bottling stores were on the opposite side of the road from the main structure. This was demolished and a new structure built in 1989 incorporating decorative features from the original building such as the circular inset reliefs of royalty.

C3.2 RESEARCH CENTRE

West Hanningfield Road, Great Baddow
TL728038

*

This site, the Marconi Research Centre, was in operation by 1939 to carry out trials of experimental radio and radar equipment. Major expansion took place in the Cold War of the 1950s and 1960s. It is now an Advanced Technology Centre for BAE Systems.

C4 ROAD BRIDGE

Hawk Hill, Rettendon
TQ780946

□ *

The previous bridge on this site across the River Crouch was demolished by a steam traction engine in 1845, so when this one was built in 1872 it was robustly tested before erection. It has a cast iron central arch with brick side arches, parapets and pillars, the total length being 117 feet. It has been widened to take two lanes of traffic.

C5 WINDMILL

Mill Lane, Stock
TQ698988

□ *

Stock Tower Mill is the sole survivor of three windmills (the other two were post mill) that once stood on this site. Built in about 1816 it originally had cloth sails which were turned into the wind from first floor staging which has now been removed although evidence of it can be seen in the brick work. From 1902 it had auxiliary steam power, but ceased operation in 1930. Now in the care of the County Council, it is open to the public.

C6 ROAD BRIDGE

Parsonage Lane, Great Waltham
TL699147

□ *

Cast iron bridge carrying unclassified road over River Chelmer. The importance of this bridge is that it was made in Chelmsford by Coleman and Morton, local iron founders, and it is beyond reasonable doubt the largest surviving example of their work. The bridge rests on brick piers; on either side of the carriageway are elaborate balustrades mounted on iron plinths each of which bears the firms name. Each outer ridge of the bridge span has the words AD1871 COLEMAN AND MORETON CHELMSFORD cast into it.

C7 ROAD BRIDGE

Bridge Street, Writtle
TL682061

□ *

This cast iron bridge takes the Chelmsford to Writtle road across the River Wid and was erected in 1891. Circular cast iron disks on the inner faces of both parapets have the lettering 'Writtle Bridge Essex County Council' around the outside and in the centre the date 1891 within a shield with Essex County logo.

CO1 WATERWORKS

Langham Waterworks, Hall Road, Boxted
TM016340 and TM027344 ★

This is an extensive site comprising a number of components of a water treatment works developed in the early 1930s by the then South Essex Waterworks Co. and most of the buildings reflect the International Modern Movement architectural style. Low Lift pumping station is adjacent to the River Stour from which water is extracted and pumped to the main site of the water treatment works. This consists of extensive filter beds with associated buildings including the Control Room, Primary Filter House and Chemical House which are all of similar architectural style to that of the Low Lift pumping station. Along the south edge of this main site is High Lift Villas Road on which there are six semi-detached and one detached house developed as staff housing. To the southeast of the main site is a large covered service reservoir with its own small pump house.

CO2.1 RAILWAY VIADUCT

Colchester Road, Chappel

TL897284 ★

Peter Bruff built Chappel viaduct in 1847-9 for the Eastern Union Railway. It is 1163ft long, has a maximum height of 80ft and has 32 semicircular arches. Originally it was to be a timber viaduct, but was built of locally made brick. It remains in use on the Marks Tey to Sudbury branch line.

CO2.2 HERITAGE RAILWAY

Station Road, Chappel

TL898288 □ ★

The East Anglian Railway Museum is based



right: CO2.1: Chappel Viaduct built by the Eastern Union Railway

at Chappel and Wakes Colne Station on the operating Marks Tey to Sudbury Branch Line. The Sudbury line was opened in 1849 and this station was built soon after although it was greatly expanded in 1891 with new station buildings, stables, goods shed and staff cottages. The whole line was threatened with closure in 1967 but this was cancelled and the Preservation Society, which had been set up to operate the line, developed Chappel and Wakes Colne Station as a steam centre, opening in 1971. Most of the original buildings survive and other historic buildings have been re-erected on site.

CO3.1 BREWERY

Maidenburgh Street, Colchester

TL997253 ★

This is the site of the Daniell Brothers brewery which has dated and initialled bricks of 1876. Following a merger with the West Bergholt Brewery the business became known as Daniell Brothers and Co. and brewing ceased here in



CO2.2: East Anglian Railway Museum at Chappel



CO3.5 WATERMILL

Bourne Road, Colchester

TM005238

□ *

Bourne Mill was built in 1591 by the Lucas family and is thought to have been constructed as a mill within the lower storey and a fishing lodge on the first floor, with the attic or bin floor being a later insertion of c.1830-40. It has a complicated history; first built as a corn mill and fishing lodge, later converted to fulling and then back to corn milling. The lower storey containing the wheel pit and the overshot waterwheel lies below the level of the millpond, while the stone floor is above. Despite the conversion to a dwelling house and the removal of much of the auxiliary machinery, fixtures, fittings and the millstones, it still retains an operational overshot iron wheel, upright drive train and a layshaft with pulleys. Bourne Mill is presently owned by the National Trust, and it remains as an exceptional, ostentatious and unusual dual purpose mill building, unique in Essex. It is one of earliest mills to survive in the county, one of a very few overshot mills in Essex, one of only two that retain a waterwheel (the other being Spring Valley Mill) and the only watermill to preserve a working overshot wheel.

and brewing ceased, the site becoming regional offices and a depot. In the late 1980s the entire site was sold and the front offices converted for office use and the tower brewhouse to residential use. The extant structures are of one of the most decorative breweries remaining in Essex, e.g. the main office block has an eagle above the date 1828.

CO3.4 SIGNAL BOX

East Street, Colchester

TM010253

★

East Gate Junction Signal Box was built in 1924 by the London and North Eastern Railway. It has a brick ground floor and timber framed upper storey and was fitted with a 35 lever McKenzie and Holland frame.

CO3.6 WATER TOWER

Balkerne Hill, Colchester

TL993253

★

In 1882 the Borough Corporation took-over the local water undertaking and this water tower was then constructed, now known as 'Jumbo'. It is c.105 ft high, built of red brick by Charles Clegg, Borough Surveyor and Engineer. Its construction



top left: CO3.3: Eagle Brewery in Colchester

CO3.5: Bourne Mill, Colchester

comprises four square piers with round-headed arches and a central service pier with stairway. This all supports a cast iron water tank on brackets with a copper roof topped by a lantern and weather vane. 'Jumbo' remains largely unaltered from its original design. The earthquake of 1888 has left a large crack in the brickwork chamber around the central stairwell. Now redundant the tower is the subject of various development proposals.

CO3.7 PUMPING STATION

Balkerne Hill, Colchester

TL992254

★

This is the site of the 1808 waterworks established following the Act of Parliament of that year. The waterworks were acquired in 1851 by Peter Bruff who sank an artesian well worked by a 24 h.p. steam engine. In 1880 the Corporation took over the undertaking and began major improvements. In 1893/4 the extant pump house, which pumped water to the 'Jumbo' water tower, and associated workshops were built and these are now used as offices and stores. Modern development has taken place on much of the site.

CO3.8 DUTCH QUARTER

Stockwell Street, Colchester

TL997253

★

In 1565 Queen Elizabeth allowed refugees from Holland to come to Colchester, where they made 'bays', a type of baize cloth. By 1575 at least 500 Dutch settlers had come to Colchester and the area north of the High Street became known as the Dutch Quarter. A seventeenth century description states 'the whole town is employed in spinning, weaving, washing, drying and dressing their bays in which they seem very industrious'. The Dutch Quarter retains a number of original timber-framed buildings including the Dutch Bay Hall.

CO3.9 ROAD BRIDGE

Station Road, Colchester

TL993256

□ ★

This cast iron bridge on a substructure of brown brick was erected in 1843 and widened in 1903. Three cast iron arches with cast iron balustrading are supported on piers with pointed stone cutwaters.

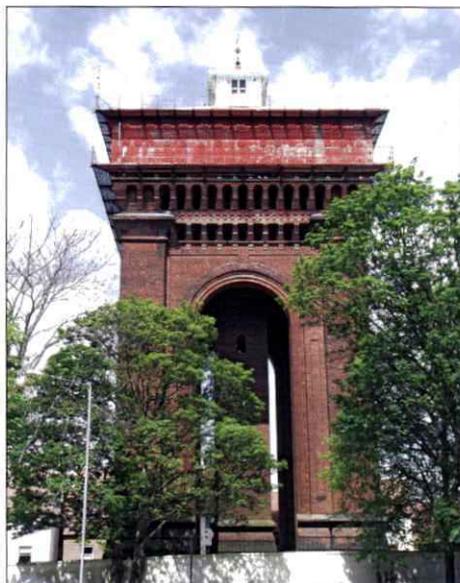
CO3.10 ROAD BRIDGE

East Street, Colchester

TM007253

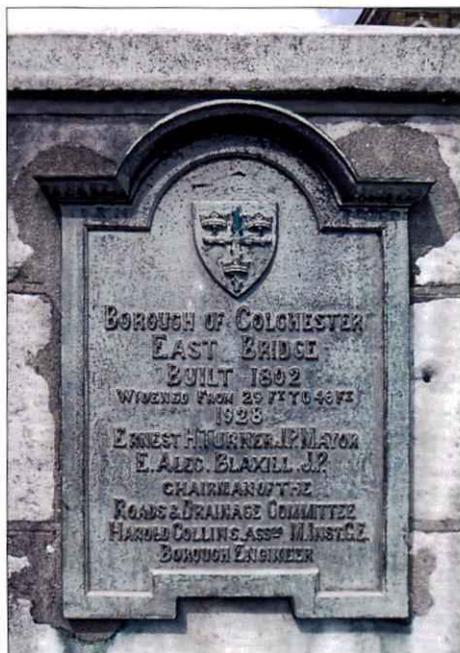
□ ★

This brick road bridge was built 1802 and widened in 1928. There are two main arches with cutwaters and smaller arches each side to span the river bank. At road level the bridge has six ashlar pillars on both sides surmounted

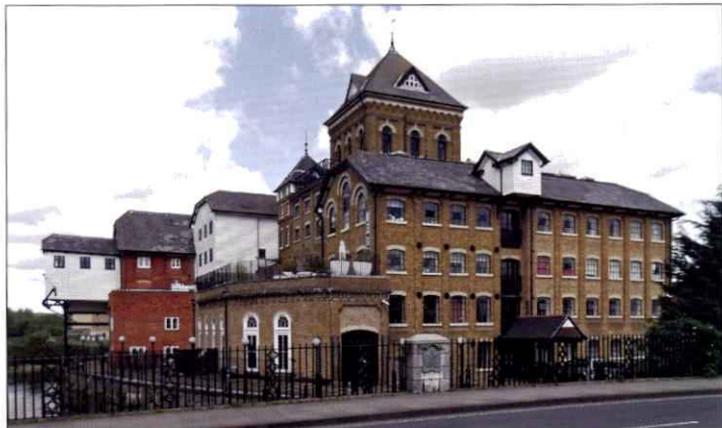


CO3.6: Brick water tower in Colchester

by wrought iron lamp posts with lamps. There is an iron balustrade between the pillars.



CO3.10: Plaque on East Bridge, Colchester



CO3.11: East Mill,
Colchester

CO3.11 WATER AND STEAM MILL

East Street, Colchester

TM008253

★

East Mill was grinding corn until the mid sixteenth century when it was converted to a fulling mill. It later served both purposes until the end of the wool industry at the end of the eighteenth century and then reverted to corn milling only. In 1840 it came into the ownership of the Marriage family and they introduced both steam power and roller milling, before completely rebuilding the mill as a steam roller mill between 1885 and 1893. Rank, Hovis, McDuggall renovated the mill in 1930-1, but it was closed in 1976 and was then converted first into a hotel and now apartments.

CO4.1 WEAVERS' COTTAGES

Southfields, Dedham

TM058328

★

This structure originates in the fifteenth century and has later additions so that the whole now is of courtyard plan as a result of its pattern of growth by separate units. Probably during the eighteenth century the manufacture of 'bays' and 'says' took place here.

CO4.2 WATERMILL

Mill Lane, Dedham

TM057334

★

Dedham mill was owned by John Constable's father Abram Constable until 1846 when it was sold at auction in Ipswich. It was made famous by Constable's painting of Dedham Lock and the original mill. The current mill, Clovers Mill, was built in the early twentieth century as a replacement astride the River Stour and comprises a tall and imposing multi-storey red brick mill with a detached two-storey granary and outbuildings sited along the

river's edge. The site was redeveloped in 1987 the mill being subdivided into residential apartments and the granary converted to domestic use. A pair of nineteenth century brick built cottages to the east of the road and facing the mill may well be mill manager/worker's accommodation.

CO5.1 WATER WORKS

Church Road, Layer-de-la-Haye

TL966194

★

This is an extensive site comprising a number of components of a water treatment works, including reservoirs, pumping station and a housing estate. It was developed by the then South Essex Waterworks Co. in the late 1930s, water being abstracted from the River Stour and pumped to the treatment works before being stored at the Abberton impounding reservoir (NGR TL981185). The principal structure on the site is the boiler house and pumping hall built in the International Modern Movement architectural style. The rest of the site consists of filter beds, covered service reservoirs and other more recent buildings. On the south perimeter of the site is what is described as 'Essex Water Company Estate', a road called Waterworks Close consisting of three detached and six pairs of semi-detached houses.

CO5.2 WATERMILL

Layer Mill Lane, Layer-de-la-Haye

TL980205

★

Layer Mill dates from the late eighteenth century and latterly ground fertiliser for use on the adjacent mushroom farm. When this ceased in 1960s all the machinery was removed. It is a three-storey building, timber framed and weather-boarded with a central lucam and a Mansard roof. It is now in residential use and forms a group of buildings with the mill house and a pair of mill cottages.

CO6 BRICK WORKS

Church Lane, Marks Tey
TL910243

★

A brick works has been in operation on this site since 1863 and now Colliers is one of only two operating brick works in Essex, excavating their clay on site. A variety of kilns have been used over the years and the now disused bottle kiln is the last surviving example in Essex. Staff housing survives in Church Lane.

CO7 WATER TOWER

Parkfield Street, Rowhedge
TM 029214

★

Built in 1902 for the then Lexden and Winstree Rural District Council, this water tower has now been converted for residential use. Built in campanile style, the tower is red brick with an iron tank painted red oxide colour and a copper pavilion roof surmounted by a wooden turret. This latter is louvered on three sides and glazed on the fourth and itself has a copper covered pavilion roof. One of five campanile style water towers identified in Essex.

CO8 WORKHOUSE

London Road, Stanway
TL959249

★

This workhouse was erected in 1836 to a design by Scott and Moffatt which followed an unusual variation of Sampson Kempthorne's cruciform plan. It has a central octagonal hub of three-and-a-half storeys from which four three-storey accommodation wings project. These are enclosed by single-storey outbuildings which create an octagonal plan. Associated buildings included the administration block, receiving wards, infirmary (later a nurses' home), ward blocks, chapel and laundry. The stables, a wood and cart shed and original mortuary have been demolished. This workhouse survives as an unusually complete early nineteenth-century workhouse with few external modifications, retaining all the key components, and its spatial form demonstrates how the paupers were accommodated, segregated and supervised. It is subject to major re-development.

CO9.1 JAM FACTORY

Factory Hill, Tiptree
TL899156

□ ★

Arthur Charles Wilkin founded the Britannia Fruit Preserving Co Ltd in 1885 and it was renamed Wilkin & Sons Ltd in 1905. The factory was extensively modernised in the 1970s, while the 1990s saw the opening of a shop, tearooms and new



CO6: Brick works at Marks Tey

photo: Adrian Corder-Birch

museum on the site. The company owns 1,000 acres of farmland and continues to thrive. In 1904 the company began building houses in the village for the workforce, including in roads with such names as Cherry Chase, Damson Gardens and Mulberry Walk.

CO9.2 PUMPING STATION

Grange Road, Tiptree
TL884167

★

This site was developed by the then South Essex Waterworks Co. in the early 1930s to receive water into the service reservoir from the Langham treatment works and then pump it onwards to other local reservoirs. The substantial pumping station is, like the buildings at Langham, built in the International Modern Movement architectural style. Along the west side of the site is a close of three pairs of semi-detached houses known as Waterworks Cottages.



CO9.2: Pumping station at Tiptree

CO10 WATERMILL

Wakes Street, Wakes Colne
TL892284 *

Wakes Colne Mill dates from the mid nineteenth century as both a corn and oil mill

and it operated as a water powered corn mill until 1945 when electric power was introduced and it also served as a coal merchant's depot. The mill is a three-storey brick building with a slate covered hipped Mansard roof and forms a group of buildings with the former oil mill, granary and mill house and all are now in residential use.

CO11 BREWERY

Colchester Road, West Bergholt
TL967276 *

Thomas Daniell was brewing on farms adjacent to this site before the mid nineteenth century and the brewery developed during the rest of the century into an extensive brewery complex with house, brewhouse, bottling plant, malthouse, stables and a chimney. In 1889 Scamell and Colyer, brewers' architects, were responsible for additions. It remained in the Daniell family under various names and was Daniell and Sons Breweries Ltd when taken over by Truman, Hanbury and Buxton and Co. Ltd. in 1958. Brewing ceased in 1959, the site then being a regional office and depot until 1986. Demolition of some of the complex was followed by conversion of the remainder into residential units. The two-storey malthouse survives, but its conversion to offices use has resulted in the loss of distinguishing features.

CO12 WATER TOWER

Upland Road, West Mersea
TM012131 *

Built in 1924 this water tower is in the campanile style with the tower in multi-colour bricks with a blue brick plinth. The iron tank is painted red oxide colour having a copper-covered pavilion roof with a wooden turret, itself having a copper covered pavilion roof with weathervane on the apex. At the tank level are now a number of antennae used in the modern communications industry. One of five campanile style water towers identified in Essex.

CO13.1 WATER TOWER

Tower Road, Wivenhoe
TM039227 *

Two plaques either side of the door on the north elevation indicate the foundation stone of this tower was laid on 24th September 1901 and it was built for Wivenhoe District Council Waterworks. Built in campanile style in red brick on a blue brick plinth it has an iron tank painted red oxide colour and has a copper pavilion roof surmounted by a wooden turret. This latter is louvered and glazed and itself has a copper covered pavilion roof with a weathervane on the apex. One of five campanile style water towers identified in Essex.

CO13.2 QUAY

The Quay, Wivenhoe
TM038214 □ *

Wivenhoe on the tidal River Colne earned its wealth from the sea as a port, fishing village, and boat building and repairing centre, and in the quay area survive a number of buildings associated with these activities. These include a warehouse used for the smoking and canning of fish, before being used as a store by Wilkin's of Tiptree the jam makers. The residential development known as Old Wivenhoe Quay was a shipyard founded in the eighteenth century and which built fishing boats, yachts, steamers, gunboats and even an experimental submarine. Other buildings include sail making premises, shipwright's premises and store, and the former J.W. Cook and Co shipyard.

CO13.3 RAILWAY STATION

Station Road, Wivenhoe Station
TM037217 *

The current station buildings were built in 1886 to replace the original Tendring Hundred Railway Station of 1863 and have much architectural detail. The original 1860s goods shed was built of timber and burnt down in 1900. The surviving brick replacement was built in 1903, but although a listed building in a Conservation Area, it is now derelict, recent redevelopment proposals having failed.

E1 MODEL FARM

Nether Street, Abbess Roding
 TL578109

★

A farm existed on this site from at least the seventeenth century as evidenced by the survival of a timber framed, weather-boarded barn of that date. Longbarns Farm was largely rebuilt in the early nineteenth century, its design being influenced by the contemporary philosophy of the model farm. The nineteenth century complex is U-shaped and consisted of cattle sheds, cart sheds, stable, a timber framed barn and farm office.

E2 BREWERY

Market Place, Abridge
 TQ466968

★

This is the site of the former Anchor Brewery dating from the mid nineteenth century. Alterations were made to the malthouse and brewery for Hurdle and Wileman in 1894 by Harrap and Duffield, a London practice of brewers' consulting engineers and architects. After a number of changes of ownership, the brewery was bought by Whitbread and Co. Ltd. in 1898, and brewing probably ceased soon after this, Whitbreads using the site as a local delivery depot until 1922. The complex consisted of the malthouse, brewhouse, tap house -The Blue Boar - and a number of other structures, all around a cobbled yard accessed under an arch to the north of the public house. The malthouse remains as does The Blue Boar and some structures to the rear of the pub house, the rest having been re-developed as housing.



E3.1: Epping water tower

E3.1 WATER TOWER

High Street, Epping
 TL457018

★

Built in 1872 to a design by Thomas Hawksley, this water tower was taken over by the Hertfordshire and Essex Water Company in 1879. In Victorian Gothic style and at 90ft in height it is of red brick



E3.2: Outhouses at Brickfield Cottages

with grey and blue brick and stone dressings, square in plan but with a circular turret on one corner. An early twentieth century single storey pump house adjoins the west elevation. Epping also has a 1930s reinforced concrete, square water tower (TL467027).

E3.2 WORKERS' HOUSING

High Road, Thornwood, Epping

TL469034



Brickfield Cottages are adjacent to the site of the former Wintry Park Brick and Tile Works. Built in the mid 19th century, this is a terrace of currently eight, but originally ten, cottages. To the rear each house had brick built sheds and weather-boarded outbuildings both under tiled roofs which survive. The outbuildings contained ranges and coppers, and a separate shed had the communal bake house.

E4 WATERMILL

Willingale Road, Fyfield

TL571066



Fyfield mill was built around 1798 and in common with many Essex watermills was re-gearred and renovated in 1890. The mill continued producing flour up until 1942 and quickly fell into dis-repair and was on the verge of demolition when it was sympathetically restored to its present working condition. A timber-framed and weather-boarded three-storey mill having a slate roof. Built onto a red brick plinth, a weather-boarded lean-to, formerly accommodated the original undershot waterwheel, which was replaced in 1890 by the present undershot twin turbine by J.J. Armfield of Ringwood, Hants.

E5 COAL DUTY BOUNDARY MARKER

Waltham Road, Nazeing

TL406048



City of London Coal Duties Acts empowered the City to levy a duty on coal entering from other areas and following the Act of 1851 boundary markers were set up alongside transport routes. The duties were repealed in 1889 but many markers survive. Road side ones, like this example, are of cast iron made by the Regents Canal Ironworks and have the City of London shield with cross and sword cast into them.

E6 RAILWAY STATION

High Street, Ongar

TL552035



36 The Great Eastern Railways branch line from Loughton to Ongar via Epping was built in 1865, the Epping to Ongar section always being just

single track. During the post-war nationalisation of the railways, the Ongar branch became part of London Transport's Central Line, although initially it was only electrified to Epping, steam shuttles operating to Ongar until electrification in the 1950s. The Central Line from Epping to Ongar was closed in 1994 but re-opened in May 2012 as a heritage railway - the Epping and Ongar Railway. Ongar Station retains its 1865 station building and also one of only two Footwarmer Houses surviving in Essex, built in 1896. Other stations on the branch are Blake Hall (TL523038) and North Weald (TL497037)

E7.1 STORT NAVIGATION

Roydon

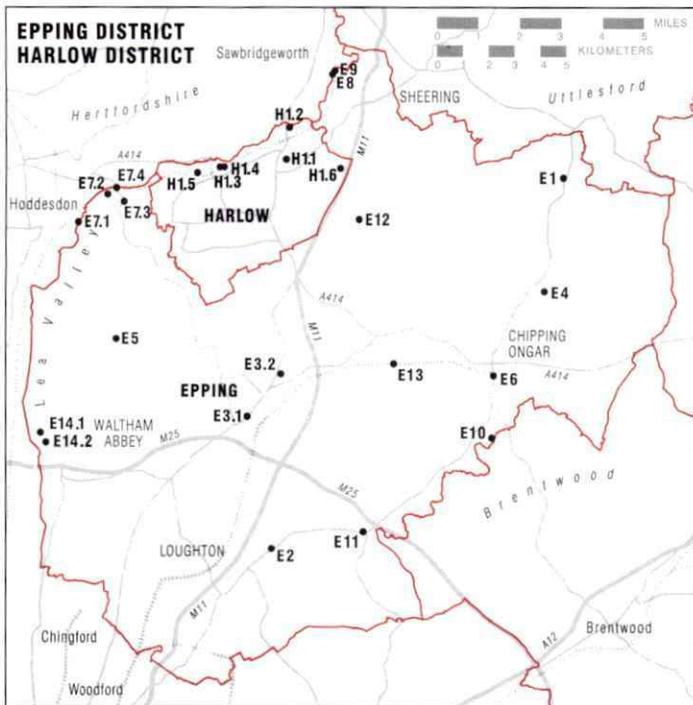
TL391092



The Stort Navigation runs from the Fielde's Weir junction with Lee Navigation to Bishop's Stortford in Hertfordshire and constitutes for much of its length the County boundary between Essex and Hertfordshire. The Stort Navigation Act 1766 (an earlier Act of 1759 was not implemented) was sponsored by Sir George Duckett (formerly Jackson) and Thomas Adderley (an inn keeper of Bishop's Stortford) and the work involved the dredging of the river Stort and construction of 15 locks over its 13 mile course. It was opened in 1769, but did



E5: Coal Boundary Marker at Nazeing



not prosper going through a number of private hands before being sold to the Lea Conservancy Board in 1911 which re-constructed it. Today it is used for pleasure cruising, a new marina has been recently constructed at Roydon.

E7.2 WATERMILL

Off High Street, Roydon
TL403103



Water mills are recorded on this site from the time of the Domesday Book, the current building dating from the early nineteenth century. It has four storeys with a double pile Mansard roof, the lower two storeys built of yellow brick and the two upper storeys timber-framed and weather-boarded. It has a slate roof and there is one lucam with a taking-in door below and the canopy of another hoist survives above a taking-in door on the first floor. During conversion to residential use the turbine and all internal gearing, fixtures and fittings were removed. The wheel pit and culverting remain but river water is now channelled through a modern pipe to the mill tail. The detached mill house of similar date is timber framed and built over two storeys with a hipped slate roof. The Stort Navigation runs close by.

E7.3 WORKERS' HOUSING

Allens Row, High Street, Roydon
TL409099



A terrace of six 3-storey cottages in grey gault brick under a slate roof, each with a wooden front door and one window per storey on the front elevation. The windows are original iron-framed pivot windows with small panes and segmental heads. The industry to which these cottages are associated remains uncertain, but one theory is that they were once railway navvies cottages (the railway opened to Roydon in 1842). The listed building description mentions what appears to have been full length accommodation, possibly workrooms.

E7.4 RAILWAY STATION

High Street, Roydon
TL406105



Built by the Northern & Eastern Railway in 1841 for the opening of the line in the following year, this station is unique in its design. Single storey, the building is of a mixture of materials, has a curved portico on the road side and the main windows are round headed. The small former station master's house survives as does the much altered 1876 signal box. In the station yard is the original, now



E7.4: Roydon Station

derelict, goods shed, the oldest surviving goods shed in Essex. The station is still in use but the station building is a restaurant. Roydon Lock on the Stort Navigation is close by.

E8 MALTHOUSES

Station Road, Sawbridgeworth
TL489148



A large complex of a number of mid to late nineteenth century maltings which lie between the Great Eastern Railway and the Stort Navigation (which here forms the boundary between Essex and Hertfordshire). A number of them at the north of the site form a J-shaped complex of five or more attached three storey maltings dating from the 1860s and there is a separate malthouse parallel to the south end of the complex. At the far south end of the site is a later multi-storey malthouse with a nine-bay, three storey central area for the drying floors and higher gabled cross wings at each end, the pyramidal kiln chimneys surviving in the south cross wing. All were originally served by railway sidings. All now converted to other uses and some are open to the public.

E9 MALTHOUSES

Sheering Lower Road, Sheering
TL491148



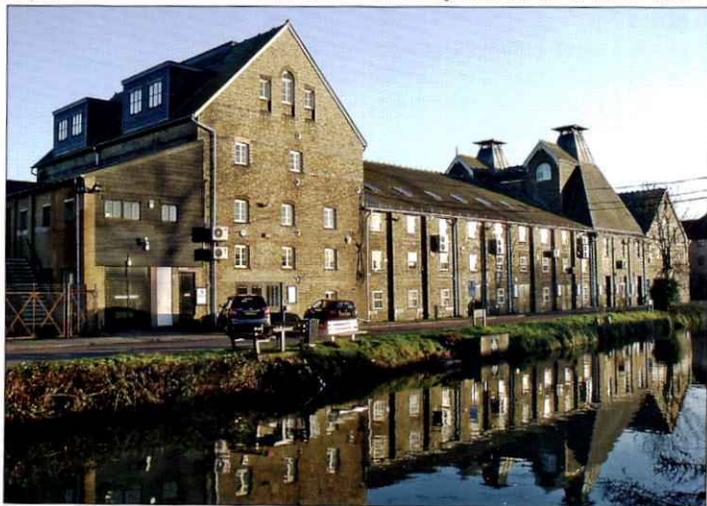
Two multi-storey maltings to the east of the Great Eastern Railway line which date from the late 1890s. Both developed by H.A. & D. Taylor, the northern one is the only surviving purpose built pneumatic malthouse in Essex. It has six storeys and the single conical kiln chimney survives. The other was built later and was a traditional floor maltings, again six storeys with four pyramidal kiln chimneys, the roof above the kilns is octagonal and rises to a large domed cupola. Both were served by railway sidings. Operations here ceased in 1983 and both have been converted to residential use.

E10 WATERMILL

Romford Road, Stanford Rivers
TL551010



Littlebury Hall Mill is a part brick, part timber three and a half storey weather-boarded and timber framed mill with a slate covered gabled ended roof built with an oversailing lucam projecting from one gable end. The remains of a collapsed wheel house are set astride a culvert formerly fed by the mill race. The mill was latterly electrically powered and used to prepare cattle food for the adjacent Littlebury Hall Farm dairy herd. Internally the mill retains much of its spatial integrity and some of its gearing and milling apparatus, such as, in the wheel house, the turbine, wallower/crown wheel, horizontal drive shaft and take off pulleys all remain, although in disrepair. Now redundant the mill is little altered by conversion to a new use.



E8: Maltings at Sawbridgeworth

E11 WATERMILL

Ongar Road, Stapleford Abbotts
TQ501974

★

Passingford Bridge Mill was built in 1760, is three-storeys high and weather-boarded under a tiled roof. There are two mill houses on the site, one contemporary with the mill and one from the nineteenth century. The mill was also steam powered for a while, but had a turbine fitted in 1931 to replace the water wheel. As it is currently disused it has not been altered by conversion to new uses.

E12 MALTHOUSE

Bush Hall Farm, Workers Road, Threshers Bush
TL499094

★

Dating from the mid nineteenth century, situated on what was once known as "The Maltings Farm", this two-storey malthouse is of yellow brick under a slate roof with red clay ridge tiles. Externally there is a weather-boarded lucam with a slate roof giving access to the first floor and a hand operated water pump that probably fed the steep on the ground floor. The growing floors extended for ten bays, but external evidence of the kiln, has been removed. Finally there is a timber-framed, weather-boarded malt store. Internally in the lucam most of the hoist mechanism remains above the hatch through which the sacks of barley would have been raised. Converted to residential use most of the surviving features have been retained including the hoist. A few hundred yards to the east of the farm is the John Barleycorn public house.

E13 MODEL FARM

Off Toot Hill Road, Toot Hill
TL 513038

★

Built between 1860 and 1880, Ongar Hall Farm was originally an arable farm, but was remodelled in 1883 as a dairy farm designed by Frederic Chancellor. The complex consists of a barn and

cowhouse at the centre, cattle shelter, further cow-houses, a shed, implement shed and a range of stables. The dairy was built adjacent to the barn.

E14.1 ROYAL GUNPOWDER MILLS

Hoppit Road, Waltham Abbey
TL376012

□ ★

Gunpowder production began on this site as a private business in 1665, passing to the Walton family in 1700 and then sold in 1787 to the Board of Ordinance. Water powered mills were used initially, but in the mid nineteenth century steam power was introduced. A system of canals was used to move materials around the site, some of which survive including a lock and aqueduct. During WW1 an 18" gauge railway system was developed, remains of which can be seen. Although production ceased during WW2, after the war the site was used for research and development, eventually closing in 1991. A large number of structures survive from the eighteenth to twentieth centuries including a number of nationally important steam powered incorporating mills dating from 1857 to 1889, in which some of the machinery survives. The site is now the Waltham Abbey Royal Gunpowder Mills visitor attraction.

E14.2 STAFF HOUSING

Powdermill Lane, Waltham Abbey
TL378008

★

During the early nineteenth century commercial expansion of the Royal Gunpowder Mills resulted in the need to provide new staff housing close to the works. A group of these buildings survives in Powdermill Lane, comprising a terrace of three workers' cottages with an Office Keepers house attached at the north end; an engineer's office with an apartment above for the Clerk of Works; and The Lodge, a detached house built for the Chief Clerk, but subsequently used by other senior officers.

HARLOW

Harlow New Town was developed after the Second World War following the New Towns Act of 1946 as an overspill town to ease overcrowding in London, along with other orbital developments such as Basildon. Sir Frederick Gibberd drew up the master plan in 1947 and the New Town incorporated a number of villages plus the market town of Harlow, now known as Old Harlow. Harlow is divided into a number of self-supporting residential neighbourhoods plus two separate industrial areas, original manufacturing including a biscuit factory and a

distillery for Gilbey's gin. This early activity has declined and new industries have arrived including a defence contractor, pharmaceuticals, and modern communications electronics.

H1.1 MALTHOUSE

St. John's Walk, Old Harlow
TL471116

★

This late nineteenth century, three-storey malthouse is built of Cambridge gault bricks under a slate roof and retains a pyramidal kiln vent and two lucams



H1.6: Feltimores model farm.

which give access to the roof level storage area. The internal roof includes both King- and Queen-post roof trusses. It is now in use as local campus for the Memorial University of Newfoundland.

H1.2 MALTHOUSE

Old Road, Old Harlow

TL473128

★

An eighteenth century, timber-framed, weather-boarded malthouse with a clay tiled roof. Two storeys high, it retains its conical kiln vent. Built adjacent to where the former Hockerill Highway turnpike road crossed the River Stort, which was made navigable in 1769.

H1.3 ENGINEERING WORKS

Burnt Mill Lane, Harlow

TL446113

★

Two storey, brick-built with a slate roof, this late nineteenth century factory was built for the marine engineers John Kirkcaldy Ltd. who occupied it until 1930s. It is now used by the Harlow Outdoors Centre for Outdoor Learning.

H1.4 RAILWAY STATION

Station Approach, Harlow

TL447112

□ ★

Built on the site of the original 1841 Burnt Mill Station, Harlow Town Station was opened in July 1960 to serve Harlow New Town and is listed Grade II. It has a high booking hall, single storey offices and waiting rooms on the footbridge, with three lift towers prominent. Architects were John Bicknell and Paul Hamilton of BR's Eastern Region.

H1.5 WATER AND STEAM MILL

Pardon Mill Lane, Harlow

TL437111

□ ★

Pardon Mill was built around 1897, the previous mill having been destroyed by fire. Steam power was introduced soon after, as evidenced by the extant late nineteenth century engine house and chimney. A horizontal turbine of 1904 survives. The mill continued to grind corn until 1960, after which it was used for milling animal feed and was a coal merchant's depot. It became derelict until 1968 but was then restored for use as offices, and studios and workshops for artists and craftsmen. It is a large four-storey brick built mill, with two lucams at third floor level below which are tiers of taking-in doors. Adjacent is the mid eighteenth century mill house, the whole site is adjacent to Pardon Mill Lock on the Stort Navigation.

H1.6 MODEL FARM

Chaik Lane, Harlow

TL492112

★

Feltimores Farm model farm was built between 1850 and 1880 and was built around a courtyard. It comprises a number of buildings mainly in brick initially designed for stock rearing, but later used for dairy herds, before becoming an arable farm. The buildings include a cow shed with granary above, a stable that was later cowshed with hayloft above, an office, pigsty, cart and implement shed, later turkey and pig shed, dairy, shelter shed that was later a cowshed, barns and farmhouse.



H1.4: Harlow Town Station

M1 POWER STATION

High Street , Bradwell-on-Sea
 TM002088



Construction of this nuclear power station began in 1957 and it began generating in 1962, having two Magnox reactors. Electricity generation ceased in 2002, with subsequent de-fuelling complete by 2006. The turbine hall was demolished 2011 but final site clearance is not due until c2083 or later. The site is on the edge of a former WW2 airfield, one and a half miles from the Essex coastline, chosen as the land had minimal agricultural value, offered easy access, was geologically sound and had an unlimited source of cooling water from the North Sea. In 2011 it was announced that Bradwell was one of eight sites to be opened as nuclear facilities by 2025.

M2.1 ENGINEERING WORKS

Colchester Road, Heybridge
 TL856082



William Bental's first foundry was in Goldhanger from 1808, but in 1815 the company moved to this site adjacent to the Chelmer and Blackwater Navigation. Bental's thrived and became one of the major iron founders and supplier of agricultural implements in Essex, especially famed for its revolutionary broadshare ploughs. By the mid



M2.1: Bentall's remaining engineering works, Heybridge

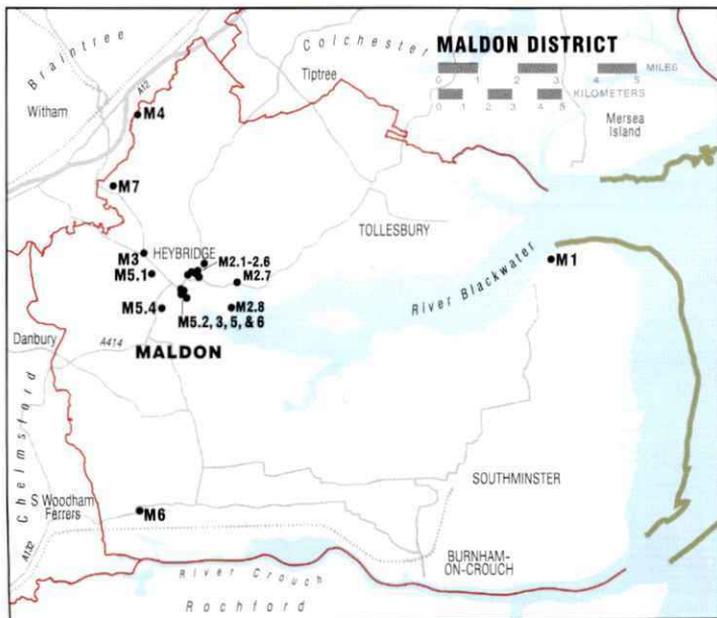
twentieth century they had expanded operations to both sides of the Navigation, but the original site on the west side has now been re-developed and the only building to survive on the east side is four-storey brick warehouse.

M2.2 WORKERS' HOUSING

The Square, Heybridge
 TL854081



The Square was the first range of cottages Bental's provided for its employees probably in 1815 and not 1827 as recorded on the plaque in the centre of the terrace. It is a terrace of two-storey brick built cottages, one of which was later reused as a shop, and one provided breakfasts for the foundry workers.



M2.3 WORKERS' HOUSING

Woodfield Cottages, Heybridge
TL860086

★

Bentall's built Woodfield Cottages for its employees in 1873. They are unusual in being an early example of concrete construction, originally with flat roofs, although pitched roofs were added in 1918. In total there are 40 cottages in three parallel terraces and contemporary paired outhouses of similar construction face the front of the cottages on the opposite side of narrow access roadways.

M2.4 WORKERS' HOUSING

Barnfield Cottages, Heybridge
TL858082

★

Barnfield Cottages is a terrace of eight early twentieth century single-storey concrete dwellings with adjacent outhouses, built by Bentall to a very similar architectural design as Woodfield Cottages.

M2.5 WORKERS' HOUSING

Well Terrace, Heybridge
TL858080

★

Well Terrace is a terrace of eight two-storey brick-built cottages constructed by Bentall around the mid to late nineteenth century. Each pair of cottages is T-shaped in plan, with the main rooms in the main body of the cottage and a utility range within a central outshot to the rear. The increased level of architectural detailing in Well Terrace indicates the higher status of these cottages and their allocation to supervisor level employees. Each cottage was provided with plot of land to the rear and small front gardens, some of which still retain original concrete boundary walls and gateposts. To the rear, all of the cottages have retained their brick-built back-to-back outhouses.

M2.6 WORKERS' HOUSING

Stock Terrace, Heybridge
TL857082

★

Stock Terrace is a row of twelve three-storey houses built by Bentall around the same time as Well Terrace, purpose built for employees with large families, plus one or two set aside as rooms for younger employees, under the supervision of a landlady. Projecting to the rear and straddling the property boundaries are single-storey gable-ended utility/toilet ranges. Most survive intact, but converted to other uses.

M2.7 MALTHOUSE

Goldhanger Road, Heybridge
TL874078

★

Saltcote malthouse was completed in 1895 to a design by Frederic Chancellor. It has three storeys, a pair of pyramidal malt kilns and a single, free-standing barley kiln. Now converted to residential units. There was an earlier nineteenth century malthouse also on the site, but this was demolished in the 1950s.

M2.8 HEYBRIDGE BASIN

Basin Road, Heybridge
TL872068

□ ★

The Chelmer and Blackwater Navigation was constructed between 1793 and 1797, John Rennie being the Chief Engineer. Although originally planned to reach the sea at Maldon, due to objections it took a different course to reach the sea at Heybridge. The sea lock is a deep brick chamber with stone copings, current iron work on the gates was supplied by the Maldon Iron Works in 1921. There is also a nineteenth century two-storey lock-keeper's cottage.



M2.7: Saltcote malthouse, Heybridge



M2.8: Heybridge Basin

M3 WATER PUMPING STATION

Hatfield Road, Langford
TL836090

□ *

This is the extensive site of a water treatment works adjacent to the Rivers Chelmer and Blackwater consisting of a number of structures of various ages and hence of differing significance. Southend Waterworks first developed the site in the late 1920s and the former pumping station dates from that first period of development. The Lilleshall Company Ltd. of Oakengates, Shropshire provided all three engines, the first two of 1927 and 1931 were scrapped along with the boilers and chimney after the pumping station became redundant in 1963. The extant engine is No. 282 Marshall that was commissioned in 1931 and, like the other two, is a steam-driven triple expansion rotative pumping engine. The engine operated three high lift pump plungers and three low lift pumps which first transferred water from the sedimentation reservoirs and then forced untreated water to the treatment plant. Developed from 1927, this site retains rare evidence of in situ technology and is now the site of the Museum of Power.

M4 WATERMILL

Little Braxted Lane, Little Braxted
TL833147

*

A mill is recorded on this site in Domesday and the current mill and mill house date from the eighteenth century. There is one long building, the former mill is mainly weather-boarded with brick facing to ground and first floors and the mill house is of red brick. The mill has a weather-boarded lucam. In 1886 the mill closed and at this early date the watermill and mill house were subsequently divided up and converted into two separate residences.

right: M5.1: Beeleigh Mill, Maldon

MALDON

Maldon on the Blackwater estuary was a trading and fishing port. The fisheries included oysters and the town had its own fleet of fishing smacks supported by boat (and yacht) building and associated trades, like sail-making. Maldon, along with Heybridge, was the location for iron founding and the manufacture of agricultural equipment. Trade included corn, timber from Europe and slate from Wales, sailing barges being one of the main types of vessels to use the port.

M5.1 WATER AND STEAM MILL

Abbey Turning, Maldon
TL839082

□ *

Although there has been a mill on this site since the twelfth century, associated with the Abbey, the current Beeleigh water mill building dates from the late 1790s. In 1845 a two-storey steam mill was built with an A-frame compound double acting beam engine which has a plaque recording that 'JAS Wentworth and Son Engineers Started Aug. 1845'. In 1875 the five-storey water mill was severely damaged by fire and abandoned, while the steam mill lost its roof and windows. The main surviving feature of the water mill is two brick lined barge docks used for loading and unloading. Essex Water Co re-roofed the steam mill in 1960 to preserve the historic machinery and in 1995 Essex County Council acquired the lease with the intention of restoring the mill to operational use.

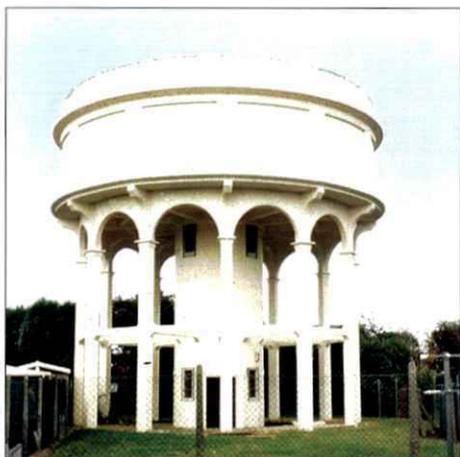
M5.2 IRONWORKS

Fullbridge, Maldon
TL851075

□ *

Maldon Ironworks Co Ltd was established in 1853, the site comprised foundry, blacksmiths, fitting and wheelwright's shops, stores and workers' housing. Iron production ceased in 1954 and the surviving building was probably erected in 1876 as a warehouse, fitting shop, pattern store and offices and has now been converted to shops.





M5.4: Water tower at Maldon

M5.3 STEAM ROLLER MILL

Fullbridge, Maldon

TL851073

★

This former flour mill was originally built as a factory in 1879 for the Bentall Brothers, manufacturers of taps and dies. This venture was unsuccessful and the building was acquired by a corn merchant in 1889 and converted into a corn roller mill and renamed 'The Steam Roller Mills'. This tree-storey brick and slated building is now sub-divided into offices.

M5.4 WATER TOWER

Cherry Garden Road, Maldon

TL843068

★

This is the site of one of the earliest extant reinforced concrete water towers in Essex, built in 1934. The circular tank is supported on twelve concrete columns, from the capitals of which spring rounded arches, and a circular central core.

The columns are tied together with ring beams and by supporting ties and struts back to the central core. There are also supporting ribs under the tank floor. The central core has rectangular metal windows and a wooden door. The tank is topped by a concrete balustrade and has a cupola rising from the centre with a flagpole on the apex.

M5.5 SALTWORKS

Downs Road, Maldon

TL854072

★

Salt extraction through evaporation has taken place since Roman times and the 'Maldon Salt Works' was established here in 1777. The 'Maldon Crystal Salt Company', a successor business, started in 1882 and still operates panning the crystals in the traditional manner. The extant nineteenth century buildings although in traditional weather boarding, have been much altered, the only original feature surviving is the chimney which may have dispersed heat from the 2 brick-built evaporation pans.

M5.6 RAILWAY STATION

Station Road, Maldon

TL852075

★

Maldon East Station was built in 1847/8 as the terminus of the Maldon, Witham and Braintree Railway. It is a grand Jacobean building in red brick with white brick dressings, the front nine-arch arcade and balustrade being mostly white brick. It has been very little altered since closure in 1964 and is now used as offices. Maldon West Station on the branch to Woodham Ferrers has been demolished but the goods shed (TL852076) survives, as do two pairs of semi-detached staff cottages..



M5.6: The terminus station at Maldon

M6 MODEL FARM

Lower Burnham Road, Stow Maries
TQ834984



Great Hayes Farm was built during the late nineteenth century as a court-yard farm complex including a barn flanked by cow sheds, loose boxes, stables and cart sheds, tack room, farm office, smithy and a farmhouse. A chimney survives which may have been associated with a stationary steam engine used for powering the farm machinery. The buildings have now been converted to light industrial and office use.

M7 TIMBER TRESTLE BRIDGE

Station Road, Wickham Bishops
TL824118



The Maldon, Witham and Braintree Railway was built economically with much use of timber, although Maldon east station was the exception, opening in 1848. Two long viaducts were needed to carry the railway over the River Blackwater at Wickham Bishops, designed by Joseph Locke.



M7: Timber railway bridge at Wickham Bishop

The longest and more northerly called Mill Stream viaduct was built some 500 ft. long and for double track, the smaller one was 160 ft. long. In 1854 the line was singled and both bridges were reduced in width. In the 1920s the northern one was reduced in length to 150 ft by extending the embankment on the northern side. Both viaducts have survived, were restored in 1995 by Essex County Council and are Scheduled Ancient Monument.

ROCHFORD

SEE PAGE 46 FOR MAP INCLUDING ROCHFORD

R1 BRICK WORKS

Star Lane, Great Wakering
TQ935874



This brick works was opened in 1932 and operated by the Milton Hall (Southend) Brick Company Limited until 1984 when it was taken over by the London Brick Company. The site only recently ceased operation and structures, including eight downdraught kilns, survive as production may start again.

R2 TIDE MILL

Hawk Hill, Rawreth
TQ780946



A tide mill has existed on this site since the eighteenth century, having been rebuilt on a number of occasions, the last time c1815. It became redundant at the end of the nineteenth century on the construction of the steam mill across the River Crouch (C1) and much of it was demolished. The current building is in fact a granary building rebuilt as a tide mill, the water wheel being a modern replica. It is currently a retail business.

R3 WINDMILL

London Hill, Rayleigh
TQ807910



Rayleigh Tower Mill was built around 1809 and

the tallest remaining windmill in Essex. Milling by wind power ended in the early twentieth century, being replaced first by an oil engine and then in 1937 by electricity. Externally the sails, fantail and stage have been restored by the Council, but it lacks internal machinery so does not operate. It is open to the public.

R4 BRICK WORKS

Cherry Orchard Lane, Rochford
TQ860900

This brick works opened in 1890 and has had a number of different operators including the Milton Hall (Southend) Brick Company and most recently Hanson's. There have been a maximum of six intermittent downdraught kilns on the site, the earliest dating from 1900, two from 1931 and two from 1962. Latterly the kilns were oil fired. There is a narrow gauge light railway under Cherry Orchard Lane from the clay pits into the brick works. In front of the brick works and facing Cherry Orchard Lane are eight houses for employees which were built c1900. The site only recently ceased operation and the structures survive as production may start again.

SOUTHEND ON SEA

Leigh-on-Sea on the Thames estuary between London and the North Sea has a long history of association with the sea as a port, handling coastal and continental trade, for ship building and as a fishing village. Trading started in the fourteenth and continued to the nineteenth century and it stimulated the ship building activity from the sixteenth century onwards, which produced both trading vessels and fishing boats. Fishing (fishermen were recorded in Domesday) continued to thrive after trading ceased, working local fishing grounds, including oyster cultivation, to supply the London market by road and barge. The fishing industry received further stimulus with the opening of the London, Tilbury and Southend Railway in 1854, winkles, mussels and shrimps being transported to London by rail. The cockle sheds where cockles are cooked and which sell a large variety of shellfish survive in numbers.

S1 RAILWAY STATION

The Ridgeway, Chalkwell

TQ852850

Chalkwell Station was built in 1933 by the London, Midland and Scottish Railway on the London, Tilbury and Southend Railway line and retains many original Art Deco features such as windows, doors and benches in the waiting room.

S2.1 SMITHY

High Street, Leigh-on-Sea

TQ838856



Originally two timber framed cottages they were converted into a ship's smithy in 1860. Along with the adjacent wooden cottage they have been

restored and converted into the Leigh Heritage Centre.

S2.2 SAIL LOFT

Pier Hill, Leigh-on-Sea

TQ842859



Built for a sailmaker's business, this building is now the Foreshore Inspector's Office.

S2.3 CONDUIT

High Street, Leigh-on-Sea

TQ837857



The source of water for the town was spring on the high ground behind the town and this was piped down to a cistern on the High Street as a supply of fresh water from 1712. The cistern was restored in 1975 and the conduit head relocated there in 1981

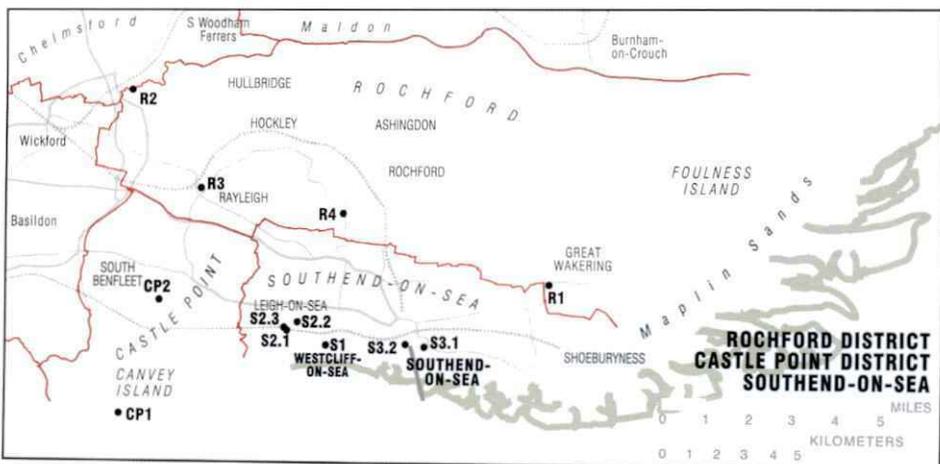
S3.1 SEASIDE PIER

Western Esplanade, Southend-on-Sea

TQ889850



Southend-on-Sea is a traditional English seaside resort whose development dates back to the Georgian period and as such boasts both a seaside pier and a cliff lift. The first pier was a timber one 600 ft in length opened in 1830. It was extended to a mile and a quarter in 1846 making it the then longest in Europe. A replacement iron pier was begun in 1888 and included an electric railway. This was also extended in 1898 to 7080ft making it the longest in the world. The last quarter of the twentieth century has seen a number of fires and other damage to the pier, plus the closure of the railway on safety grounds, which led to the



threat of total closure of the pier. These events have necessitated a number of refurbishments to bring the whole pier back into full use and the building of a new 3 foot gauge railway.

S3.2 CLIFF LIFT

Western Esplanade, Southend-on-Sea
TQ882851

□ *

The cliff lift was opened on August Bank Holiday in 1912 as a means of easily transporting visitors

from the promenade to the town avoiding a steep climb. The single car runs on a 4ft 6inch gauge track, under which is a 1ft 9inch track which carries the counterweight. Modernisation has taken place in 1930, 1959 and 1990, the car being replaced on each occasion.

T E N D R I N G

TE1.1 WATERMILL

Spring Valley Lane, Ardleigh
TM038277

*

In 1777 there was a fulling mill on this site which was later converted to corn milling. In the mid 1800s it was converted to steam power with an engine house for the boiler and beam engine, although it retained its cast iron overshot water wheel. It was used for grinding and crushing beans until 1938, was derelict by 1966 but was then privately restored. Spring Valley Mill is part brick and part timber framed and weather-boarded mill with a tiled mansard roof and an extant lucam. It is currently in a poor state of repair and a building at risk, although one of a few in the county not converted to other uses and containing most of its machinery including one of only two extant overshot waterwheels, the other being Bourne Mill, Colchester.

TE1.2 STEAM MILL

Station Road, Ardleigh
TM053291

*

This c1850 mill is one of the earliest mills in the county purpose-built for steam power. Known as Phoenix Mill it is close to the Ipswich-Colchester railway line and was served by a siding. The mill ceased grinding in about 1910 and was latterly used as a warehouse for an adjacent nursery, becoming disused by 1987 and now converted to offices. The site also consists of a two-storey stable/granary building and a mill house.

TE1.3 SMALL HOLDINGS

Various addresses, Ardleigh and Lawford
TM0629 – TM0831

*

Influenced by the Carnegie UK Trust, the Land Settlement Association Ltd. (LSA) was founded in 1934 with the aim of providing work on small holdings for unemployed industrial workers such as miners, principally from the north of England. In each scheme existing agricultural land was divided into plots of varying sizes and houses, out-buildings, glass houses, piggeries and poultry huts were built. Roads and a central storage and administrative centre were established, the latter usually based on a pre-existing farm. The plots and hence the houses were strung out at wide intervals along the frontage of the roads. 25 of these estates were established nationally, with two created in Essex. The houses were designed by architects Pakington and Enthoven to provide adequate accommodation as cheaply as possible according to the requirements of the Housing Act. The Ministry of Agriculture took over the Ardleigh and Lawford estates in 1948 and these were then sold, mainly to the tenants, although the LSA marketing operation at Lawford continued to be successful well into the second half of the century.

TE2 LIME KILN

Quay Lane, Beaumont-cum-Moze
TM190240

□ *

Beaumont Quay is on an artificial cut at the western end of Hamford Water built in 1832. The only buildings to survive are the quay, a store



TE2: Lime kiln at Beaumont-cum-Moze

and a limekiln that was built to meet the demand for lime for agricultural use in the nineteenth century. It is a circular red brick structure within an earthen mound. The interior comprises a round barrel-vaulted circulation passage around a central pot that has three openings, as well as its entrance. There is a small rectangular opening that was probably a ventilator. Adjacent is the single storey store building, which along with the quay and kiln are a rare survival of a complex of quay buildings which were abandoned in the early twentieth century.

TE3.1 BREWERY

Victoria Place, Brightlingsea

TM087169



Known as the Marine Brewery, Frederick Miller was brewing here in 1874 until 1899 when he sold it to Charles Seabrooke of Grays and it then traded as C. and W. R. Seabrooke. In the early 1930s it was

sold to Daniell and Sons of West Bergholt. The Brewers Arms public house building dates from at least the late seventeenth century and is timber framed with a plastered front, weather-boarded rear and red plain tiled roof. The brewhouse is the adjacent red brick building with a slate roof.

TE3.2 SAIL LOFTS

Waterside, Brightlingsea

TM089162



Brightlingsea was a limb of the Cinque Port of Sandwich and much of its wealth came from the sea. Oyster cultivation and dredging and sprat catching were traditional industries that required boats, which were built here, and packing sheds. Copperas was also dredged off the shore. The nineteenth century saw the development of racing and cruising yacht building. Few of the buildings associated with these industries survive, although there are timber framed and weather-boarded sail lofts now in other uses, but the James and Stone shipyard was redeveloped after its closure in 1980 as a marina and housing. The 1780 Cinque Port Wreck House survives, a rare example of such a building.

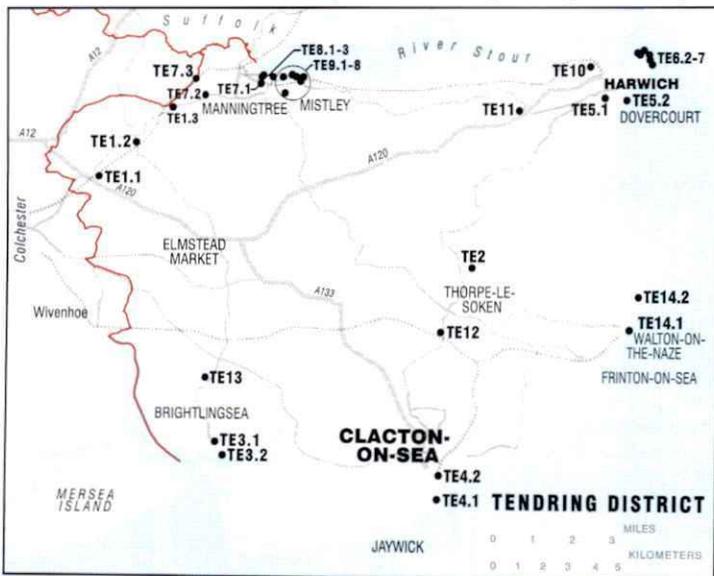
TE4.1 SEASIDE PIER

King's Parade, Clacton-on Sea

TM177145



Designed by Peter Schuyler Bruff, Engineer and Manager of the Eastern Union Railway, Clacton Pier opened to the public in 1871 as a landing pier for goods and passengers. It also became



opposite:
top left: TE4.2:
Signal Box at
Clacton-on-Sea Station
photo: Chris Cock Collection
top right: TE5.1:
The water tower
at Dovercourt
far right: TE6.1: Harwich
Ha'penny Pier



a popular venue for promenading, especially as Clacton's popularity with day-trippers from Londoners grew due to easy access by sea on Woolwich Steam Packet Company steamships and following the opening of the railway in 1882. A lifeboat station was added in 1878 and originally 480 feet (150m) long it was extended in 1893 to 1180 feet (360m).

TE4.2 SIGNAL BOX

Carnarvon Road, Clacton-on-Sea

TM178155



Clacton signal box was built in 1891 by the Great Eastern Railway. It is a timber box which had new windows and cladding in about 2000. It was built with a 52 lever Saxby and Farmer Dulpex frame.

TE5.1 WATER TOWER

Fronks Road, Dovercourt

TM243309



This water tower was built in 1902 and has an open painted steelwork tower, octagonal in plan topped with a circular water tank of painted corrugated metal sheeting. There is a diagonal access ladder leading to an access gallery with handrail. The tank has a coned shaped roof.

TE5.2 LIGHTHOUSES

Marine Parade, Dovercourt

TM253308 (Upper)



Upper and Lower Lighthouse are a pair of cast iron leading lighthouses joined by a causeway, Upper being onshore and its partner is offshore. When a ship saw the two lights aligned, it was on the right course. The lighthouses were erected following the lights at Harwich becoming redundant and were restored between 1985 and 1988.

TE6.1 PIER

The Quay, Harwich

TM259328



Known as the Ha'penny Pier, a name originating from the ½d (half an old penny) toll charged, the pier was opened in 1853 and became a popular



departure point for paddle steamers until after the First World War. Originally the pier was twice as long as the present one but one half burnt down in 1927. The Pier Ticket Office is a charming example of late nineteenth century architecture and now houses the Ha'penny Pier Visitor Centre. The pier also accommodates the lifeboat house for the RNLI inshore rescue boat.





TE6.2 LIGHTHOUSE

Harwich Green, Harwich

TM263323



Low Lighthouse was built under the supervision of John Rennie Snr. in 1818 to replace an earlier timber one, and is a 45 feet (16.5m) high, ten-sided brick tower. Trinity House took over the light in 1836, but it became redundant in 1863 due to the changing course of the channels. It became the property of the local authority except for a short period in the 1970s and is now Maritime Museum run by the Harwich Society.

TE6.3 LIGHTHOUSE

St Helens Green, Harwich

TM262324



High Lighthouse was also built under the supervision of John Rennie Snr. in 1818 to replace an earlier timber one, and is a 90 feet (32.8m) high, nine-sided brick tower. Trinity House took over the light in 1836, but it became redundant in 1863 due to the changing course of the channels,

although it continued to be used by mariners as a landmark. It then became a private residence and now contains a privately run Wireless Museum. The Harwich High and Low Lighthouses are 150 yards apart and were leading lights working as a pair with one light positioned above the other as seen from the sea so a vessel knew it was on the correct course.

TE6.4 TREADWHEEL CRANE

Harwich Green, Harwich

TM262325



Built in 1667 for use in the Naval Dockyard, now Navyard, it was moved to its present site on Harwich Green in about 1932. Men walking in the interior of the wheels worked the crane and two wheels produce balanced action. Each oak wheel is 16 feet (4.87m) diameter, 3 feet 10 ins (1.2m) wide and spaced 4 feet (1.22m) apart on a common axle 13½ ins (34cms) diameter. The jib has a projection of 17ft 10 ins (5.4m). Probably the only British example of a two-wheel man operated treadwheel crane.

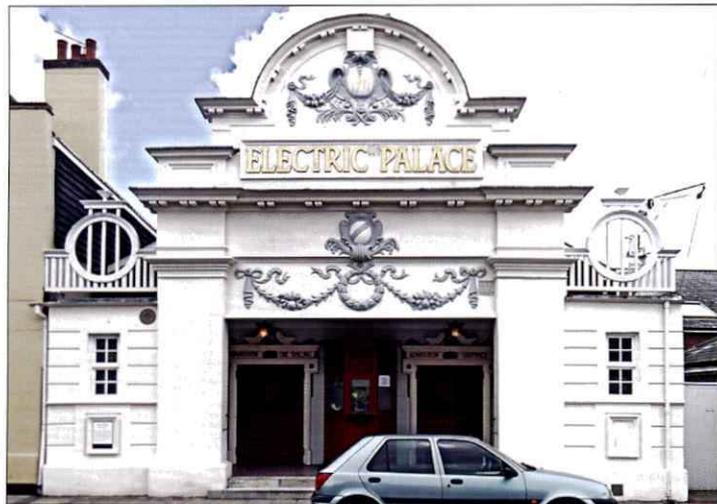
TE6.5 CINEMA

Wellington Road, Harwich

TM262327



The Electric Palace Cinema opened in 1911 and is one of the oldest purpose-built cinemas to survive complete with its silent screen, original projection room and ornamental frontage still intact. There is also a former gas powered generator engine with a 7 feet (2.1m) fly wheel situated in the basement. Closed in 1956 it has been restored, re-opened in 1981 and now runs as a community cinema showing films every weekend.



above left: TE6.2:
Low Lighthouse,
Harwich

TE6.5: The Electric Palace
Cinema
in Harwich

TE6.6 TRINITY HOUSE DEPOT

The Quay, Harwich

TM258327

★

Trinity House Depot was established in Harwich in 1812 and it is now the operational Headquarters for England and Wales, both having previously been in London. The present offices were built in 2005, when a new Buoy Yard was also constructed in George Street.

TE6.7 TRAIN FERRY PIER

The Quay, Harwich

TM 257328

★

Harwich was a train ferry port for the Continent and the train ferry pier was erected here in 1924 consisting of a second hand gantry from Richborough and a second hand link span from Southampton. Now no longer in use it remains derelict in the Trinity House Depot.

TE7.1 WATERWORKS

Mill Hill, Lawford

TM104315

★

Tendring Hundred Waterworks Co. originally operated in Mistley, but in the early twentieth century built a service reservoir on this site. In 1905 the company moved from Mistley to a new waterworks here with further expansion during the 1920s and 1930s. This is an extensive site with a number of structures of various ages reflecting the stages of development, including a modern but architecturally sympathetic office block. At the entrance stands a red brick, tile roofed single-storey building with terracotta plaques moulded with the initials THWWCo and the date 1908. There are two large pump houses that have the distinctive long round headed windows and both have clerestory roofs.

TE7.2 MILEPOST

Harwich Road, Lawford

TM082310

□ ★

A cast iron milepost recording the distances from Lawford to London, 58, Harwich, 14 and Colchester, 7. It has the founder's mark - *O. Bendall Engineer Lawford 1893*.

TE7.3 WATERMILL

Mill Hill, Lawford

TM078317

★

Shirburn Mill is the survivor of two watermills on this site, the upper mill having been demolished in 1921. It was built in the late eighteenth century and is of three storeys, timber framed and weather-boarded on a brick base. The overshot exterior wheel was removed in 1937. Also on site are the mill house and a sixteenth century timber

framed mill cottage. The mill building is disused and is one of the few in the County to have not been converted to other uses.

TE8.1 MALHOUSE

North Street, Manningtree

TM106319

★

All that remains of a mid nineteenth century extensive malthouse complex are two red brick two storey kilns surmounted by wooden ventilator towers. Modern flats occupy the site of the malthouse, but the converted kilns have been retained as a landscape feature in a settlement where the malt industry was once important.

TE8.2 MALHOUSES

The Walls, Manningtree

TM109318

★

There were originally eight malthouses on this site, built by Edward Norman between 1806 and 1828. Only three survive, one on the road frontage and two further back on the site which are linked by two surviving large pyramidal kilns. The whole site has been redeveloped for housing, the three surviving malthouses and two kilns having been converted to residential use.

TE8.3 MILEPOST

Station Road, Manningtree

TM105318

□ ★

A cast iron milepost of 1834 recording the distances from Manningtree to London, 60, Harwich, 12 and Colchester, 9. It has the founder's mark Bendall, iron and brass founder, plough and machine maker, Lawford, Essex 1834. Lawford Ironworks was founded by O. Bendall early in the nineteenth century and later became JRM Fitch, which closed in 1971 and was then demolished.



TE8.3: Milepost at Manningtree



TE9.2: EDME malting site, Mistley

MISTLEY

Mistley is a planned industrial port (and later spa) settlement of the early eighteenth century established by Richard Rigby (1690 – 1730). As well as renovating existing properties, Rigby built new houses along the High Street, made alterations to the quay, built a new ship-yard, coal yards, granary and two malhouses, and provided community facilities such as the Thorne Inn of 1724/5. As industry expanded, population increased and the need for more houses became evident and in the 1760s Richard Rigby's son (also Richard, 1722 – 1788) built 12 cottages on The Green, and in the 1770s he demolished and repaired many of the buildings his father built, including the wholesale replacement of two quayside malhouses with one larger building. Many of the buildings in the village including the church (now the two Mistley Towers) and the fountain were designed by Robert Adam. Mistley developed during the second half of the nineteenth century to become one of the major centres for the malt industry, serving the vast barley growing areas of East Anglia and supplying London and other major brewing centres via sea and rail links. Seven multi-storey malhouses incorporating technological innovations patented by Robert Free and built by Free, Rodwell and Co were in operation at the industry's peak. Robert Free established New Mistley, a purpose built



TE9.1: Malthouse, High Street, Mistley

company settlement providing workers' housing, a school, an inn, a Methodist Chapel and Robert Free's own house, The Elms. Mistley remains an important port and much of the Rigbys' and Free's developments survive.

TE9.1 MALTHOUSE

High Street, Mistley

TM119318



Mistley became a major centre of the late nineteenth century malt industry and retains some of the best preserved malhouses in the county. There is also a purpose built quay, an architecturally ornate railway station, stock brick-built offices and workers terraces. Known as No.1, this large red brick-built malthouse complex, built by Free, Rodwell and Co between 1896-7, has three storeys to the High Street side and eight storeys to the quayside. A pair of five storey pyramidal kilns stand to the east of the main block. Robert Free was one of the leading entrepreneurs of the late nineteenth century industry and his pioneering ideas were reflected in the technology used in this and other Mistley malhouses.

TE9.2 MALTHOUSE

High Street, Mistley

TM117317



Known as No. 2, this five-storey malthouse now forms part of only three operating malt complexes in Essex (the others being Crisp's adjacent in Mistley and Bairds' at Witham) and was built by the Free, Rodwell and Co in 1893. Adjacent was the site of the English Diastatic Malt Extract Company founded in 1881 by, amongst others, Robert Free and being known by that name from 1884 and as EDME Ltd from 1897. EDME produced diastatic (enzyme rich) malt extract and syrups for the breweries, and malt flour for the bakery industry, but as demand for their products from the breweries declined EDME produced ingredients and equipment for the home brew trade. In 1941 EDME rented No. 2 malthouse to produce malt for Free, Rodwell and Co and in 1975 following the acquisition of Free, Rodwell and Co by Allied Breweries, EDME purchased No. 2 malthouse. The original malthouse was built with pneumatic drum malt kilns (one of only two Essex malhouses that contained drums for pneumatic malting) but these were apparently unsuccessful and replaced by traditional kilns. These kilns were removed during the 1950-60s, to be replaced by malt drums, a system similar to the original pneumatic kilns. EDME had stopped malting on site by the end of 1994 and closed down No.2. By 1999 the company stopped producing malt

extract altogether and now concentrates on dry goods such as flours, flakes and mixes for the bakery trade.

TE9.3 MALTHOUSES

School Lane, Mistley

TM120316

★

Known as Nos. 3, 4 and 7 this malthouse complex comprises of a double range of five-storey malthouses beside School Lane (Nos. 3 and 4) and an eight-storey malthouse (No. 7) to the east. Built by Free, Rodwell and Co on a greenfield site on the then edge of Mistley, Nos. 3 and 4 were built, probably in a single phase, shortly before 1896, while No. 7 was added later, probably in 1904. All three were built with two pairs of kilns. No. 7 has been demolished and Nos. 3 and 4 have been converted to residential use with the loss of some of the structures.

TE9.4 MALTHOUSES

High Street, Mistley

TM121318

★

Known as Nos. 5 and 6 there were originally two eight-storey malthouses on this quayside site, characteristic of the Free, Rodwell and Co model and comparable to the slightly later No.7 malthouse. No. 6 was completely demolished in the 1980s possibly to increase available quayside space. No.5 has been partially demolished, the twin kilns, stair turret and hoist tower remain, but the germinating floors were removed to be replaced by large grain silos.

TE9.5 MODEL FARM

Green Lane, Mistley

TM114311

★

Purpose built in the late eighteenth century during the first phase of agricultural improvement Dairy Farm model farm has a linear layout rather than the courtyard plan that became commonplace in the next century. Surviving buildings include Dairy House, workers' cottages (now a single dwelling), stables, a weather-boarded granary, cart shed, brewhouse, cow house, office and dairy.

TE9.6 ROAD BRIDGE

The Walls, Mistley

TM 113320

□ ★

A late eighteenth century stone bridge, known as Hoppings Bridge, designed by Robert Adam, who designed a number of buildings in Mistley. Only the south side survives.

TE9.7 WORKERS' HOUSING

High Street, Mistley

TM116318

★

These early eighteenth century houses and shops

were built by Richard Rigby Snr. for the people who worked at the port of Mistley and its industries. There are two terraces of houses on either side of the High Street, nine on the north side and eight on the south. The Green is a terrace of 12 cottages built by Richard Rigby Jnr. in the late eighteenth century.

TE9.8 WORKERS' HOUSING

Beckford Road, Mistley

TM120316

★

The purpose built company settlement of New Mistley was developed in the late nineteenth century by Robert Free to provide workers' housing, a school, an inn, a Methodist Chapel and the his own house, The Elms. The original housing is in Beckford Road, Armagh Terrace, Rigby Road, Pleasant Place and James Terrace, all being terraces of two-up, two-down Victorian cottages. Stour Cottages are the most decorative, the others being lower status dwellings. Although there have been some external alterations this group of houses largely maintains its character and the layout of the settlement is un-disturbed.

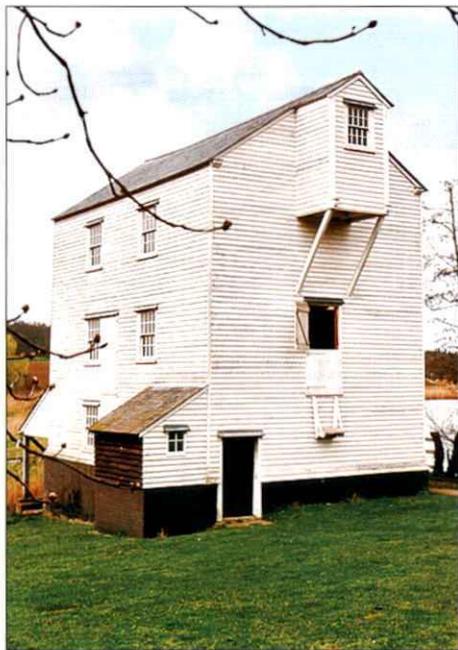
TE10 INDUSTRIAL SETTLEMENT

Parkeston

TM237322

★

Parkeston ('Parkes Town', named after the company Director, Charles. H. Parkes), in common with settlements at Silver End and East Tilbury, was purpose built by industry, in this case the Great Eastern Railway (GER), to provide adequate and local accommodation for its employees. The GER decided to relocate its shipping interests from Harwich and consequently built its own deep-water quay at Ray Island, now known as Parkeston Quay, where from 1879 – 1893 it built the new quay, warehouses, a railway goods yard, a hotel and a station for GER passengers. The town of Parkeston was built to the south of the quay to house up to 600 people and provide a primary and secondary school, Anglican and Methodist churches, a village hall, Co-operative store, fire station, a hotel and a sports ground. GER also supplied electrical power to the entire estate sourced from its own power station within the quay. The houses are grouped within clearly defined hierarchical/social zones with a distinct north and south divide. Managers' and middle managers' housing lies within the northern half of the town and comprise semi-detached houses or small detached groups of houses with gardens. The lower status housing comprised basic 2-up, 2-down type terraces to the south of the town.



TE13: Thorrington Tide Mill

TE11 WINDMILL

The Street, Ramsey
TM209304

Ramsey post mill has a three-storey round house of red brick, with a timber framed and weather-boarded body. It is believed to have been moved from Woodbridge, Suffolk in 1842. By 1974 the mill was derelict but was restored in the late 1970s. *

TE12 MALTHOUSE

Station Road, Thorpe-le-Soken
TM178213

This three-storey malthouse was built in the late 1870s by Robert Free to produce both pale and crystal malt. It has two weather-boarded lucams and two kilns mid-range and a third to the rear. *

TE13 TIDE MILL

Brightlingsea Road, Thorrington
TM082194

A tide mill at Thorrington is shown on a map of 1777, but it was rebuilt in the 1830s and this is the building that now survives. It was last worked by waterpower in 1926 when the waterwheel failed, although it continued to grind for some time after

using a portable steam engine. From 1941 the mill began to fall into disrepair but Essex County Council acquired it in 1974 and restored it to its present condition. In 1990 the waterwheel was turning once more using tidal waterpower and in 1993 it was opened to the public. This three-storey mill is timber framed and weather-boarded, the undershot, cast-iron waterwheel is 16 feet in diameter and 6 feet wide. The adjacent mill house is an eighteenth century timber framed, part plastered, part brick building. Thorrington Tide Mill is the only surviving complete and working tide mill in Essex.

TE14.1 SEASIDE PIER

Southcliff Promenade, Walton-on-the-Naze

TM254215

□ *

This is Walton's second pier, the original one was built to a length of 530 feet in the 1870s, but this proved too short and passengers from the ships often had to transfer to small boats to come ashore. The second pier was opened in 1898, 2600 feet long and with a single line electric tramway which survived until 1935 when it was replaced by an unusual battery-powered carriage. In 1937 the pier was damaged by fire, but rebuilt after the war and re-opened in 1948 when a diesel locomotive was used for carrying passengers. The railway ceased operation in the 1970s.

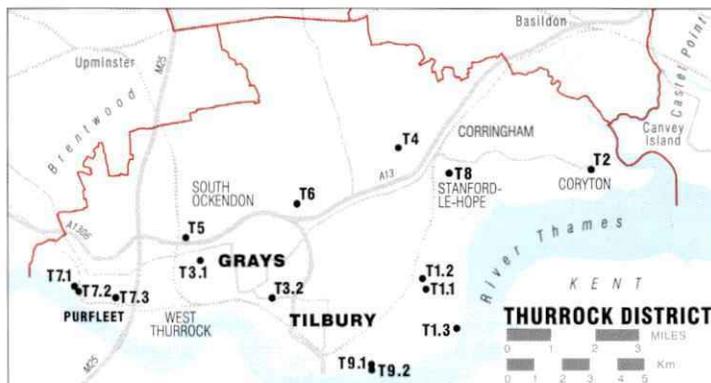
TE14.2 IRONWORKS

Hall Lane, Walton-on-the-Naze

TM258229

*

The Crescent Foundry was established by Robert Warner, son of John Warner a bell-founder from London, in 1872 to produce a variety of machinery including wind pumps, portable boilers, steam engines and machinery for rubber plantations. Built adjacent to the Walton Channel by the coast, it had its own private dock for bringing in raw materials and transporting out finished products, but the cut was infilled in 1950s. A tramway was used to move heavy goods from the wharf to the foundry. Much of the original works has been lost in post-war development, but the manager's house, an office surmounted with a wooden cupola and the pattern shop survive. Housing was built for the staff including a terrace of 13 cottages in Hall Lane, at the end of which was built Crescent Hall in 1875 which served as a dining hall during the day and an adult education centre in the evenings. It is now the Baptist Church.



T1.1 SHOE FACTORY

Princess Margaret Road, East Tilbury
TQ680782



Tomas Bata had founded the Bata shoe making company in Zlin, Czechoslovakia, in 1894 and by the inter-war period he was exporting millions of pounds worth of shoes to England. Concerned that there may be tariffs placed on these imports, Bata decided to open a factory in England, although Tomas died before work on its construction began for the British Bata Shoe Co. The first single storey factory building was operational in 1933 and since then three five-storey, a three-storey and six further single storey buildings have been erected, all of which remain. They are of concrete construction with day light glazing to provide maximum light to the factory floors. British Bata closed in 2006 and the factory buildings are either vacant or occupied by other businesses.

T1.2 COMPANY MODEL VILLAGE

Princess Margaret Road, East Tilbury
TQ680787 (Centre)



This is a complete planned industrial settlement centred around the British Bata Shoe Co., established in East Tilbury by the Czech Tomas Bata in 1933. Bata provided all the housing and social needs of the workforce - over 300 houses, a hotel, four dormitory buildings, shops, cinema (now the village hall), swimming pool, memorial gardens, orchard, sports facilities, college, fire station and a 300 acre farm. The settlement at Tilbury was based on the original Bata development at Zlin in Moravia and was designed by modernist architects Jan Kotera, Vladimir Karfik and Frantize Gahura. The first houses were built in Bata Avenue by 1933 and were followed by

three parallel roads (Thomas Bata, King George VI and Queen Elizabeth Avenues) of modernist houses built before and after WW2. These later houses varied slightly according to status, providing different internal layouts and larger executive houses, the latter built with extended frontages and a first floor balcony. Later post-war houses were of traditional pitched roof design.

T1.3 FORT

Princess Margaret Road, East Tilbury
TQ691768



Coalhouse Fort was completed in 1874 and with two forts on the Kent side of the Thames served to defend the capital. Built with thick granite walls and having large vaulted casemates, during the First World War it controlled shipping on the Thames and in the Second World War it was equipped with anti-aircraft guns. After the war it was used as storage by Bata's but when it became redundant was bought by Thurrock Council in 1962 and they maintain it as a visitor attraction.

T2 OIL REFINERIES

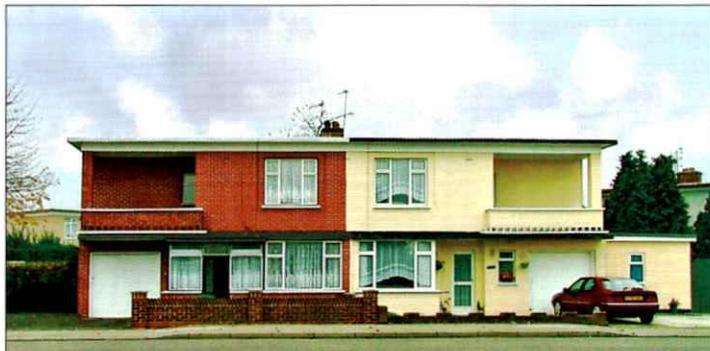
The Manorway, Fobbing
TQ740825 (Centre)



Currently the large Coryton and Shellhaven



T1.2: Bata Shoe Co housing, East Tilbury photo Essex CC



T1.2: Bata Shoe Co housing at East Tilbury
photo: Essex C C

oil refinery complex, this site has a varied and interesting history. In 1897 G. Kynoch & Co Ltd, ammunition manufacturers, developed this agricultural site after they had diversified into explosives production, including Kynite. Known from that date as Kynoch Ltd, they chose the site for its remoteness and accessibility by shipping. In 1898 they built 34 staff houses, a school and Institute in a community which was known as Kynochtown, adding a further four houses in 1901/2. This was not enough and a further 51 houses were built in Corringham, bricks being supplied by a brick works established on the Kynoch site. The Corringham Light Railway was sanctioned in 1899 to link the London, Tilbury and Southend Railway with the works and Corringham where some of the staff lived. Although Kynoch's expanded to meet extra demand during the First World War, it closed in 1919 and the whole site including the railway and housing was sold to Cory Bros. who wanted the site for oil refining and distribution - Kynochtown became Coryton, the explosives works having been demolished. Predecessor companies of what became Mobil in 1955, took over the site in 1950 and in 1970 demolished Coryton village in order to create space for the expansion of the refinery, and the light railway was wound up, what physically survived of it becoming part of the refinery's internal rail system.

T3.1 CHALK QUARRIES

Warren Lane, Grays

TQ600789 (Centre)



The Grays area of south Essex is the location of the upper chalk outcrops and was the centre of the chalk quarrying industry and the development of the cement industry, with such companies as the Portland Cement Co, Blue Circle and Lafarge.

56 Development of the quarrying began in the mid 1800s and the area saw experiments with new technologies such a rotary kilns. With the cessa-

tion of quarrying all sites have been redeveloped, most famously a former Portland Cement site as the Lakeside Shopping Centre opened in 1990 (TQ587790), another as a nature reserve (TQ597793) and a third for housing (TQ607782). It was in the latter quarry that the South Essex Waterworks Co first sourced fresh spring water and in 1863 built a pumping station to supply parts of south Essex with potable water.

T3.2 WORKERS' HOUSING

Broadway, Grays

TQ623778



A terrace of six cottages built within and along the southern most boundary of the former late nineteenth century Globe Brick and Cement Works. The cottages, known as Cement Block Cottages, were built overlooking the main tramway that connected the works to the wharfs on the Thames foreshore. This simple two-storey terrace may have been constructed using cement blocks, most likely produced on site.

T4 WOOL MARKET

The Square, Horndon on the Hill

TQ670833



The Wool Market was built in the 1500s and was where Dutch wool merchants came to trade. The wool came from sheep kept on the Thames flood plain and marshes below the village.

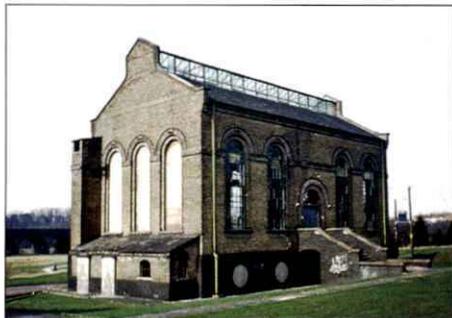
T5 PUMPING STATION

Pilgrims Lane, North Stifford

TQ592800



The South Essex Waterworks Co. established in 1861 and originally operating from a chalk quarry in Grays, developed this site at Davey Down in the 1920s, which consists of a number of component buildings. Most prominent is the former pump house, a tall brick structure typical of such waterworks buildings with its tall round-headed windows with metal glazing bars and a clerestory



T5: Pumping station at North Stifford

roof. It houses two of the original three diesel drives and pumps, built by Sulzer of Switzerland. There is also a filter house, a utility building and a small circular concrete water tower which may be of a slightly later date than the two main buildings. There is also a house on the site.

T6 WINDMILL

Baker Street, Orsett

TQ633812



This eighteenth century smock mill last worked in 1917. Derelict for a number of years it has been restored and the adjoining steam mill is part of a house conversion.

T7.1 WORKERS' HOUSING

Church Hollow, Purfleet

TQ551783



A terrace of twelve quarry workers cottages built in 1790 by the brewers Samuel Whitbread, who had purchased land in and around Purfleet to quarry chalk for the local brickworks, lime and later cement works industries. Known as Hollow Cottages, these 12 cottages were reduced to 6 in the mid nineteenth century by making one unit out of two.

T7.2 WORKERS' HOUSING

London Road, Purfleet

TQ553781



This terrace of 12 cottages known as Botany Cottages is located to the south of the Botany chalk pit and was built in 1905 for the employees of The Steam Ship Owners Coal Association Ltd. A large plaque attached to the central gable bears the initials SSOCA Ltd and a steam ship and anchor. These two-storey cottages have small gardens to the front and rear.

T7.3 WORKERS' HOUSING

London Road, Purfleet

TQ567779



This terrace of 38 cottages was built by the Purfleet Wharf and Saw Mills in 1904. The terrace is roughly contemporary with Botany Cottages and shares many similar architectural details. The terrace has two plastered plaques set into road facing gables bearing the company initials PW and SM, the build date of 1904 and a banner below reading Jarrah Cottages.

T8 WORKERS' HOUSING

Corringham Road, Stanford-le-Hope

TQ688823



A pair of flat roofed semi-detached managers' houses built by the Shell-Mex Oil Refinery by 1939, sited to enjoy a south facing aspect and extensive views of the Thames estuary and the oil refinery. The buildings are typical of the later Art Deco movement, and original architectural features such as concrete porches and a fully glazed belvedere/crow nest projecting from the roofline still remain, although the original Crittall glazing has been lost to modernisation.

T9.1 POWER STATION

Fort Road, Tilbury

TQ660755



This complex originally consisted of two power stations, 'A' and 'B'. Station A began generating electricity in 1956, was mothballed in 1981 and finally demolished in 1999. Station B was opened in 1968 and in 2004 the adjacent jetty was enlarged to accommodate larger ships bringing in the coal. However, in 2011 it was converted to burn biomass wood pellets.



T7.2: Botany Cottages, Purfleet

photo: Essex C C

T9.2 FORT

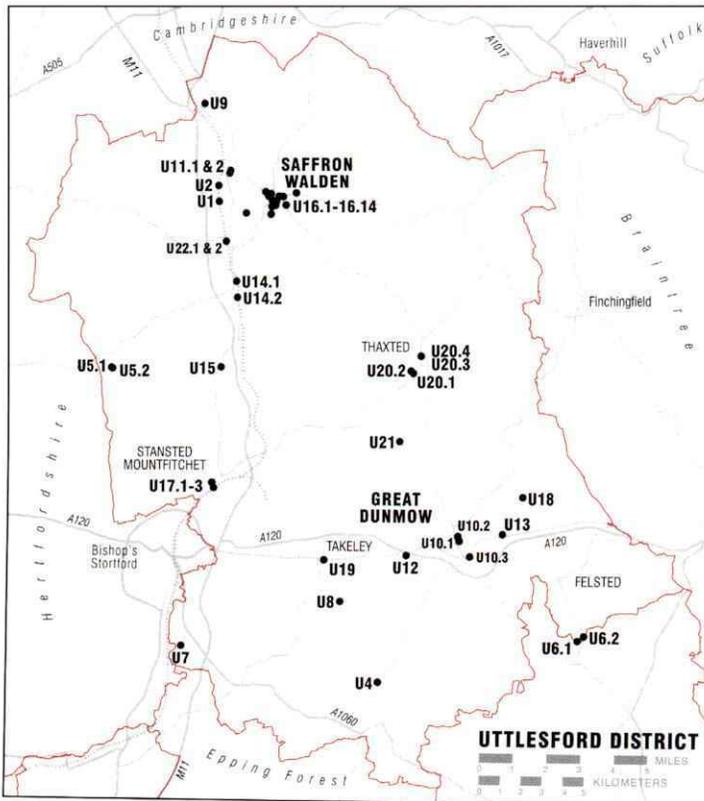
Fort Road, Tilbury

TQ650753



The first permanent fort at Tilbury was built in 1539 and it was reinforced during the Armada. Work started on the current fort in 1670, the original blockhouse being retained and surrounded by a pentagonal defensive wall with projecting bastions and an earth and brick gun line along the river bank. Completed in 1682 major features include an imposing Water Gate, which is extant, and two large powder magazines built in 1712. The nineteenth century saw extensive re-modelling

along the riverside, the walls were reinforced and earth was embanked on the outside to protect the brickwork from the effect of newer high velocity guns. The original blockhouse was demolished around 1867 and the nineteenth century developments were partly built over prior to the First World War with concrete emplacements and magazines. Bomb damage in the Second World War destroyed the eighteenth century soldiers' barrack block, but the officers' terrace survives. No longer required after 1950, the fort is now in the care of English Heritage.



U1 AND U2 TUNNELS

Audley End and Littlebury

NGRs - see text below

★

The Eastern Counties Railway line to Cambridge crosses the chalk uplands of north-west Essex and hence on this section there are major engineering works including a viaduct (TL517362), two tunnels and a number of cuttings. The tunnels were built in 1845 at the insistence of Lord Braybrooke of Audley End House where the line passed through his land. The southern portal (TL513382) of the Audley End tunnel bears his coat of arms on its keystone and has a semicircular ring decorated with bosses featuring Tudor roses and portulicises. The south portal (TL513389) of the Littlebury tunnel is in Egyptian style, while both north portals (TL513386 Audley End tunnel and TL514394 Littlebury tunnel) are plain. They were probably designed by Sancton Wood.

U3 MODEL FARM

Wenden Road, Audley End

TL 526376

★

Abbey Farm model farm dates from 1865 and was probably designed by Frederic Chancellor for Lord Braybrook of Audley End House to a typical E-shaped double yard plan. Each yard is flanked by various livestock buildings, a cart shed, timber framed granary and, between the two, a



U2: Littlebury Tunnel entrance

large central cowshed. Post-war there have been alterations including conversions associated with intensive pig-rearing and the barn and dairy have been demolished.

U4 WINDMILL

Gunners Green, Aythorpe Roding

TL590152

□ ★

The largest remaining post mill in Essex, it was built in the 1770s, continued in use until 1936, and is the first restored mill in the County to grind by wind power.

U5.1 TREADWHEEL & WELL HOUSE

Dewes Green Road, Berden

TL463303

★

Seventeenth century oak animal-powered treadwheel, 15 feet by 3 feet, to turn a 3 foot wooden winding drum over a 130 foot well. Enclosing timber-framed building is tiled and weather-boarded and in two stages, the upper having been built to exactly accommodate the circumference of the wheel.

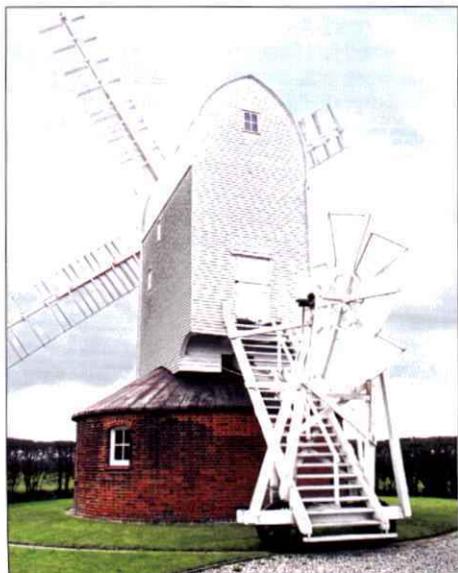
U5.2 MALTHOUSE

Dewes Green Road, Berden

TL462303

★

Early seventeenth century farm malthouse which is timber-framed on a brick plinth, with rendered walls and roofed with hand-made clay tiles. Single storey as barley and malt were probably stored elsewhere on the farm. Did have a single conical kiln vent, but this has been dismantled.



U4: Windmill at Aythorpe Roding

U6.1 BREWERY

Chelmsford Road, Hartford End

TL688175

★

Thomas Dixon Ridley built the brewery in 1842 down steam from his mill on the River Chelmer and expanded the business through to his death in 1882. Since then it passed through succeeding generations of the family until it became the last working brewery in Essex. However, in 2005 Ridley's was taken over by Greene King and brewing ceased at Hartford End. All equipment has been stripped out and the building awaits development. Adjacent are two pairs of semi-detached cottages built to house the staff of the brewery.

U6.2 WATERMILL

Mill Lane, Hartford End

TL685173

★

Dating from about 1780 Camsix mill is an impressive two and a half storey brick built mill which was at one time owned by Thomas Dixon Ridley who built the nearby Hartford End Brewery. It worked until 1929 when the wheel was sold and the machinery was stripped out. Nicholas Ridley, then the owner of Ridley and Sons Hartford End Brewery, converted it to a house in the 1970s. The mill forms an important group of historic buildings with the mill house and mill bridge, plus the now redundant brewery.

U7 WATERMILL

Old Mill Lane, Gaston Green

TL496169

□ ★

The water-powered corn mill on this site was recorded in 1720 as being used for silk throwing and twisting, probably using a copy of machinery patented two years earlier by Sir Thomas Lombe. After a short period it reverted to corn milling and was re-built in 1874. Having a brick ground floor, the upper storeys are clad in vertical weather-board, all under a pantile roof. Two lucams are extant. Now in use as a restaurant.

U8 MODEL FARM

Green Street, Great Canfield

TL571191

★

Peckers Farm dates from the 1870s and is U-shaped, the yard being flanked by two barns, a shelter shed, dairy, stables and ancillary buildings. A separate L-shaped block consists of pigsties and a cart shed.

U9 BREWERY

School Street, Great Chesterford

TL507429

★

Maltings Cottage and the former tap house, now

known as 'Old Maltings' date from the seventh century, while the brewery to the rear was built in the mid to late nineteenth century. In 1874 John Thomas Pilgrim was operating as a maltster and brewer and did so until his death in 1899, after which the business was run by his executors and then his family, trading as E. and H. Pilgrim, until 1910. It was sold in 1913 to Dale and Co., the Cambridge brewers. When the brewery closed the building was used as a malthouse and then an umbrella factory. All that remains of the brewery / malthouse is the kiln section which has a slate, pyramidal roof, which has been converted to a dwelling.

U10.1 MALTHOUSE

Mill Lane, Great Dunmow

TL628220

□ ★

A two-storey timber-framed and brick malthouse, known as Boyes Croft, with a peg tile roof, the earliest part of which dates from the early to mid sixteenth century. At the west end on the brick-built ground floor is the cement rendered brick-built steep that was supplied with water from a small cast-iron pump which survives. The first floor here is weather-boarded and has a taking-in door to what was the barley store. In the next seven bays are located the malting floors, the walls have wattle and daub infill, and beyond is the nineteenth century malt kiln, which replaced an earlier example. There is then a brick-built furnace and above the drying floor a conical kiln chimney. A two-storey timber-framed malt store stands at the east end with a jettied first floor landing and external stairs. To the west, adjacent to the main building is a second drying kiln, part of a private residence.

U10.2 BREWERY

North Street, Great Dunmow

TL627223

★

The Dunmow Brewery was founded in 1803 initially run by Alliston and Randall before merging with Dunmow rivals, Webb and Gibbons. Acquired by Charringtons in 1965 it closed soon after and most of the structures such as the brewhouse, cooper's shop and stables were demolished in 1975. The surviving structures are the tap house, The King's Head, the malt store, bottle store and brewery manager's house.

U10.3 WORKHOUSE

Chelmsford Road, Great Dunmow

TL633212

★

This workhouse built in 1840 to a design by Scott & Moffatt has three main components: a two-storey entrance range containing the chapel and board

U10.1: Malthouse at Great Dunmow



room; a U-shaped courtyard range containing the bulk of the residential accommodation and service blocks, a four storey central block with three storey wings; and two terraces of late nineteenth century staff houses. Following closure in 1914 the workhouse was used as army and refugee billets, and later a prisoner of war camp. In 1932 the buildings were sold and converted into flats and houses, and early example of adaptive re-use, but the buildings retain most of the principle components and external integrity has not been compromised by the residential conversion.

U11.1 ROAD BRIDGE

Walden Road, Littlebury

TL518396



This cast iron single-span road bridge was built in 1858 by Henry Stock, the County Surveyor. The main beam on both sides is marked Littlebury Bridge Erected MDCCCLVIII.

U11.2 WATERMILL

Mill Lane, Littlebury

TL518395



Kings Mill and Mill House date from the late eighteenth century and were once part of the Audley End Estate. It was water powered until around 1859 when a steam engine was introduced and it ceased milling around c1924 after which it was converted to residential use. The site comprises a large three and a half storey timber framed, weather-boarded mill with a Mansard roof and a three storey mill house with a Mansard roof. The waterwheel had been removed but elements of machinery framing and six pairs of French millstones survive, although nothing survives of the steam plant. In 1977 the mill and house were

sold by the Audley End Estate and have since remained in private hands, unused apart from as storage.

U12 CROSSING KEEPER'S HOUSE

High Cross Lane, Little Canfield

TL603213



This crossing keeper's house was built for the opening of the Bishop's Stortford, Dunmow and Braintree branch and is of similar design but smaller scale than the station building at Takeley.



U13: The 1938 reinforced concrete water tower at Little Dunmow

The Countess of Warwick of near-by Easton Lodge built Easton Lodge Halt here in 1895 for her visitors' use, although it was also a public halt.

U13 WATER TOWER

Homelye Chase, Little Dunmow

TL649223

★

A Reinforced concrete water tower of 1938 in a modernist style. It comprises a circular tank supported on an octagonal core and eight columns, with ring beams at ground and tank soffit level from where there are ties back to the central core. Windows on the central core are metal framed.

U14.1 NEWPORT BRIDGE TOLL HOUSE

Belmont Hill, Newport

TL521344

★

Although on the Essex & Herts. Turnpike Trust turnpike road, later the A11, this toll house was a private one for collecting tolls for passing over the privately owned bridge. Timber-framed and with plaster decoration, there is a surviving toll board detailing the tolls payable.

U14.2 MALTHOUSE

Station Road, Newport

TL522336

★

An 1854 complex of one three-storey malthouse plus a two-storey building that was stables, storage and offices. The malthouse is brick built, with weather-boarding above first floor level at the west and east ends, a lucam mid-way along the south façade and two tile clad conical kiln chimneys at the east end. The storage building is at 90° to the malthouse, parallel to the adjacent railway line at Newport station. A siding was provided via a trailing point from the down line of the main GER Cambridge line to the west side of the storage building.



U14.2: The malthouse at Newport

U15 REFRESHMENT AREA

Cambridge Road, Quendon

TL514303

□ ★

This site consists of a drinking fountain under a tile covered, wooden canopy supported by wooden posts, which, according to the inscription was presented to the people of Quendon and Rickling Green 'In Memoriam' by Henry Archibald Tufnell in 1887. Adjacent is a drinking trough for horses, both being on the side of the former A11.

U16.1 GAS WORKS

Thaxted Road, Saffron Walden

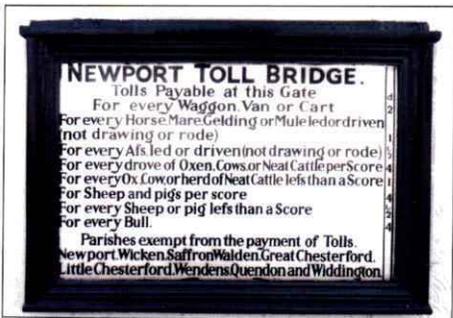
TL544384

★

The gas works here were one of the earliest in Essex, built in 1836. All that remains are two red brick built buildings flanking the roadside entrance to the former works. The two-storey manager's house has a decorative plaster facade to the road with pilasters and an 1836 date-stone. The single storey structure, which may have housed the retorts, is truncated to the east and the full height brick arches on the long walls have been blocked. Architectural embellishment on the road side has the inscriptions 'GAS WORKS' and '1836'.



62 U14.1 above: Newport Bridge toll house serving a privately owned bridge.
right: Detail of the toll board showing the tariff.





U16.1: The gas works at Saffron Walden

U16.2 WATER TOWER

Debden Road, Saffron Walden

TL538376

★

This red-brick water tower was built in 1913 for Saffron Walden Waterworks and is 28 metres high and eight metres square. The upper tank level is enclosed in brick with three blind depressed arched recesses in each face, a motif which is repeated in different sizes on the three stages below. The tower is now disused and stands in the grounds of the Friends School.

U16.3 MALHOUSE

Myddylton Place, Saffron Walden

TL535386

★

Saffron Walden was a major malting centre and there are remains of six surviving in the town, one associated with the major brewery of the town. This building dates from the early sixteenth century and was converted to a malthouse in the eighteenth century. It is timber-framed, plastered and of two storeys under a peg tile roof. The attic level lucam and ground floor louvred windows survive as evidence of its former use.

U16.4 MALHOUSE

Central Arcade, Saffron Walden

TL537384

★

A three-storey mid-nineteenth century yellow brick-built malthouse with small louvred windows on all three floors of the north façade. The kiln probably stood at the east end. Now surrounded by modern buildings and used as a hall.

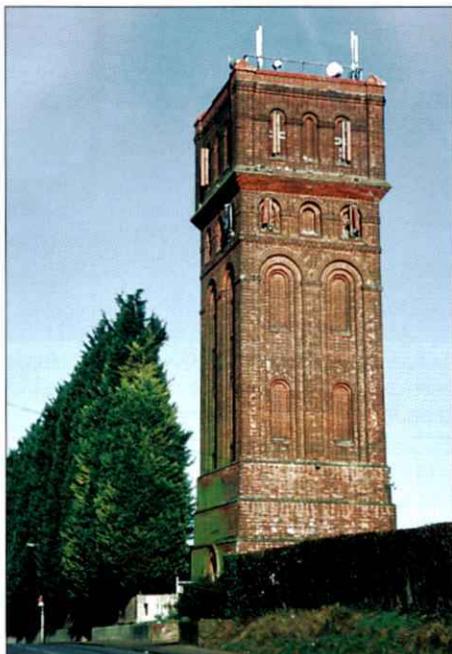
U16.5 BREWERY

High Street, Saffron Walden

TL536385

★

The Anchor Brewery was developed by the Gibson family during the first half of the nineteenth century but sold to J.W. & J.L. Taylor in 1830s and then to Reid's Brewery Co. Ltd. of London in 1897 when brewing ceased. Benskins were the last brewery to own the site, using it as a depot



U16.2: Water tower, Saffron Walden

until 1920. Latterly a garage, the site, that included the brewhouse and a three-storey malthouse, has been redeveloped as residential units.

U16.6 TEXTILE WAREHOUSE

15 Bridge Street, Saffron Walden

TL535386

★

Saffron Walden was also a centre for the textile industry, both worsted yarn and silk. This building has been called a crape factory, but was probably a warehouse and distribution centre for Grout, Baylis & Co., putting thrown silk out to weavers to work on at home. The silk industry only lasted about 20 years in the town and this building ceased its association with it in 1836. A timber-framed roofed carriageway at the north end allowed access to the rear of the warehouse.

U16.7 WEAVERS' COTTAGES

17-37 East Street, Saffron Walden

TL5433384

★

This terrace of 11 houses is built of knapped flint cobbles with red-brick dressings under a slate roof. It was a row of weavers' cottages (many of which exist in the town) built in the early nineteenth century in association with the short-lived local silk industry. The front elevation presents two-storeys and a small basement window, while the rear extension shows three complete storeys, the land



falling towards a brook. The basement would have been used as the weaving room.

U16.8 WEAVERS' COTTAGES

34 Gold Street, Saffron Walden
TL538383

★

This sixteenth century timber-framed and plaster cottage is recorded as having been the home of weavers of both woollens and then in the nineteenth century crape. The large first floor window that lit the weaving room survives.

U16.9 WORKERS' HOUSING

Alpha Place, Saffron Walden
TL541381

★

Alpha Place is a development of 16 three-storey houses built in 1850 as two parallel terraces of eight and was occupied by various craftsmen and artisans, such as carpenters, painters, tailors, boot and shoemakers, coach builders, domestic staff and a brewer's labourer. The communal water supply was by a pump situated on the pathway between the two terraces, the stump of which survives.

U16.10 WORKERS' HOUSING

Artisan's Dwellings, Saffron Walden
TL542384

★

Artisan's Dwellings is a development of 16 two-storey houses built in 1882 as two parallel terraces of eight. Like Alpha Place they were occupied by a similar variety of craftsmen and artisans. They were constructed by and using building materials from Dix, Green & Co., cement makers of Saffron Walden but not as housing for their staff, rather as a showcase for their products.

U16.11 WEIGHBRIDGE

Debden Road/Station Road, Saffron Walden
TL578379

★

64

Weighbridge Court, a development of modern apartments, is built on the former Saffron Walden Goods Yard. The weighbridge has been retained as part of the development. It was added to the



yard in 1930, was capable of weighing up to 12 tons and was manufactured by H. Pooley & Sons Ltd. of Birmingham and London.

U16.12 RAILWAY STATION

Station Road, Saffron Walden
TL540380

★

The station building is the only other surviving structure from the once extensive complex of railway station, goods yard and industrial premises. It was built ready for the opening of the Saffron Walden Railway Company's line from Audley End as far as Saffron Walden in 1865, a through station as the line was eventually extended to Bartlow. It is a symmetrical two-storey, brick building of five bays with set-forward gabled cross-wings and consisted of a booking hall and waiting room with Station Master's accommodation on the first floor. Opposite is the Railway Arms public house.

U16.13 DRINKING FOUNTAIN

Market Square, Saffron Walden
TL538385

□ ★

Designed by John Bentley and moved from the London Exhibition of 1862 to Saffron Walden as a gift from Gibson the brewer and banker to celebrate the wedding of the then Prince of Wales.



U16.11: Weighbridge at Saffron Walden Goods Yard

far left: U16.9: Workers' housing at Alpha Place, Saffron Walden

left: U16.10: Artisan's Dwellings at Saffron Walden



U16.12: Saffron Walden Railway Station

U16.14 WORKHOUSE

Radwinter Road, Saffron Walden
TL550386

★

Saffron Walden Union Workhouse was erected in 1837 and designed by James Clephan, following Sampson Kempthorne's cruciform model. It comprises three-storey ranges forming the cruciform plan, with a central octagonal hub, which were linked by single-storey wings and walls, enclosing the courtyards in-between. Each of the three-storey ranges terminates in a square block with pyramidal roof. The entrance block has a clock on the façade and is flanked by single-storey ranges. The former mortuary and casual ward block survive, although some of the single-storey ranges have been demolished and replaced with modern additions.

U17.1 WINDMILL

Mill Side, Stansted Mountfitchet
TL510247

□ ★

This 5-storey brick-built tower windmill dates from 1787 and was working until 1910. It has been restored on a number of occasions since. Most of the original machinery survives including three pairs of stones by Hughes & Son, London and Brown, Huxham.

U17.2 REFRESHMENT AREA

Chapel Hill, Stansted Mountfitchet
TL510251

□ ★

A late nineteenth century cast-iron drinking fountain, with a canopy supported on four slender columns. The canopy has four faces each with a shield of arms and one with 'Essex 1871'. Promoted by H. & W. Gilbey (local distillers) and cast by Macfarlane & Co., Glasgow. Situated where the road from the village centre meets the former A11.

U17.3 MALHOUSE

Stoney Common Road, Stansted Mountfitchet
TL511245

★

Built around 1870, this three storey, brick-built, slate roofed structure has had all evidence of the kiln vents removed. An almost parallel, later building was used for storage, offices and ancillary purposes. They were linked at the top storey level and between the two a siding was provided



U17.1: Windmill at Stansted Mountfitchet



U18: Stebbing Mill

*below left: U20: Thaxted Station:
the engine shed
and water tank*

via a facing point from the up line of the main GER Cambridge line. Now extensively altered, distinguishing features have been removed and converted to commercial premises.

U18 WATER AND STEAM MILL

Mill Lane, Stebbing

TL658240

★

Town Mill was built in the late seventeenth to early eighteenth century and has two storeys and an attic, is timber framed and weather-boarded under a tiled roof. It was substantially renovated in 1877, at which point a new a pitch back wheel and gearing by Fell Christy of Chelmsford were added, along with a portable steam engine. Flour milling had ceased by 1901 and latterly it was used to mill animal feed and break horse beans. It finally closed in 1995 and was converted to residential use in 2003 at which stage it lost most of its machinery. There is an adjacent brick-built mill house.

U19 RAILWAY STATION

Station Road, Takeley

TL564210

★

The branch line from the main Cambridge line at Bishop's Stortford to Great Dunmow and Braintree was opened in 1869 by the Great Eastern Railway. Passenger services ceased in 1952, the Dunmow viaduct was closed due to structural problems in 1966 and freight traffic continued to decline so that the line closed in phases until it closed completely in 1972. The former line was acquired by Essex County Council and is a designated country park called the Flitch Way – a linear route following most of the track bed from Start Hill (TL519213) to Braintree. Takeley Station was built for the opening of the railway, but became redundant on the cessation of passenger services and fell into disrepair. It was restored in 2006 by the County Council for use as a Rangers' office. Also extant on this disused branch line is the former Felsted Station (TL664212).

U20.1 RAILWAY STATION

Off Stanbrook Road, Thaxted

TL606300

★

Thaxted Station, the terminus of the Elsenham to Thaxted Light Railway is almost a mile from the town itself. The original station building of 1913 is all that remains of the original station buildings and facilities, but externally it appears to be intact and little altered from the original. The rest of the site is used as a builder's yard.

U20.2 ENGINE SHED

Off Stanbrook Road, Thaxted

TL605301

★

Also at Thaxted Station the original engine shed





U22.1: Eastern Counties Railway's Audley End Station

U21 WATERMILL

Footpath north from Grange Green, Tilty
TL599267

★

This water mill, built in the late eighteenth century of brick and tile, is of two storeys. It is now derelict, but many features can be identified including the leat and water wheel.

U22.1 RAILWAY STATION

Station Road, Wendens Ambo

TL516363

□ ★

Audley End station, on the Liverpool Street to Cambridge line, was built in 1845 by the Eastern Counties Railway, which had taken over from the Northern & Eastern Railway the completion of the line under Robert Stephenson as engineer. Designed by Sancton Wood and probably completed by Francis Thompson, the main block has two storeys in brick with semicircular arched, radially glazed windows and a porte-cochere with stucco arches and coursed pillars.

U22.2 BRANCH LINE HALT

Station Road, Wendens Ambo

TL516362

□ ★

The Saffron Walden Railway Co. opened the branch line from Audley End through Saffron Walden to Bartlow in 1865. It was closed in 1964 following the recommendations of the Beeching Report. The branch line station building and a length of the platform survive close to the mainline station building in the middle of the car park. It is a small single storey building of brick under a slate roof. There is a central open canopied seating area and bench seating, on either side of which are the office and waiting room.

of 1913 survives as the only existing example of an engine shed in Essex. It is brick built under a corrugated iron roof, being one bay wide and four bays long, in each of which is a wide round-arched, small-paned window.

U20.3 WATER TOWER

Off Stanbrook Road, Thaxted

TL605301

★

Finally, completing the group of three original buildings at Thaxted Station is the water tower of 1913. It survives as the only one of three intact, railway associated water towers in Essex. It is brick built and surmounted by a cast-iron water tank.

U20.4 WINDMILL

Mill Row, Thaxted

TL609308

□ ★

This red brick, five floor tower windmill was built in 1804 for John Webb using bricks from his own brick works near the mill. By 1904 it was disused and in decay by 1970, but it has been completely restored to working order, one pair of stones being able to grind. Most of the original machinery survives.

Train Ferry Gantry erected on the train ferry pier at Harwich in 1924, now disused and in the Trinity House Depot.



- Brewery
 - BT7.1; BT7.2; BT3; BT14.1; BT22.1; C2.1; C3.1; CO3.1; CO3.2; CO3.3; CO11; E2; TE3.1; U6.1; U9; U10.2; U16.5
- Brick works
 - B13; CO6; R1; R4.
- Cinema
 - BT1.6; TE6.5.
- Cliff lift
 - S3.1.
- Coal duty marker
 - E5.
- Company housing
 - BT1.5; BT20.2; TE10; T1.2.
- Conduit
 - C2.12; S2.3.
- Cottage hospital
 - BT14.6.
- Electronic engineering factory
 - B1.1; B1.2; B2.1; BT23.4, C2.9; C2.10; C2.11; C3.2.
- Engineering works
 - C2.5; H1.3; M2.1.
- Explosives works
 - B3; E14.1.
- Fort
 - T1.3; T9.2.
- Foundry
 - BT7.4; BT10.1; M5.2; S2.1; TE14.2.
- Gas works
 - U16.1.
- Heritage railway
 - BT5; CO2.2; E6.
- Isinglass factory
 - T7.5.
- Jam factory
 - CO9.1.
- Lighthouse
 - TE5.2; TE6.2; TE6.3.
- Lime kiln
 - TE2.
- Malthouse
 - BT4; BT9.1; BT21.2; BT23.5; E8; E9; E12; H1.1; H1.2; M2.7; ME8.1; TE8.2; TE9.1; TE9.2; TE9.3; TE9.4; TE12; U5.2; U10.1; U14.2; U16.3; U16.4; U17.3.
- Mechanics institute
 - BT10.4.
- Metal window factory
 - BT1.8; BT1.9; BT1.10; BT20.1.
- Milepost
 - TE7.2; TE8.3.
- Model farm
 - BW1.3; E1; E13; H1.6; M6; TE9.5; U3; U8.
- Petrochemical works
 - CP1; T2.
- Power station
 - M1; T9.1.
- Pumping station
 - BW1.1; C2.8, CO3.7; CO9.2. M3; T5
- Quarry
 - T3.1.
- Quay
 - CO13.2.
- Radio factory
 - C2.6; C2.7.
- Railway station
 - BT1.11; BT17; BT23.6; BW2; CO2.2; CO13.3; E6; E7.4; H1.4; M5.6; S1; U12; U16.12; U20; U22.
- Railway tunnel
 - U1; U2.
- Railway viaduct
 - C2.14; CO2.1; M7.
- Refreshment area
 - U15; U16.13; U17.2.
- River navigation
 - C2.16; E7.1; M2.8.
- Road bridge
 - BT23.2; BT23.3; C2.15; C4; C6; C7; CO3.9; CO3.10; TE9.6; U11.1.
- Saltworks
 - M5.5.
- Sail loft
 - S2.2; TE3.2.
- Seaside pier
 - S3.2; TE4.1; TE6.1; TE14.1.
- Shoe factory
 - T1.1.
- Signal box
 - CO3.4; TE4.2.
- Silk mill
 - BT1.2; BT1.2; BT10.2; BT14.2.
- Small holdings
 - BT13; TE1.3.
- Steam mill
 - C1; C2.3; C2.4; CO3.11; H1.5; M5.1; M5.3; TE1.2.
- Textile warehouse
 - U16.6.
- Tide mill
 - R2; TE13.
- Toll House
 - U14.1.
- Train ferry pier
 - TE6.7.
- Treadwheel
 - TE6.4; U5.1.
- Watermill
 - BT2.1; BT7.6; BT8; BT9.2; BT14.2; BT15; BT16; BT18; BT19; BT21.1; BT22.2; BT23.1; C2.2; C2.3; CO3.5; CO3.11; CO4.2; CO5.2; CO10; E4; E7.2; E10; E11; H1.5; M4; M5.1; TE1.1; TE7.3; U6.2; U7; U11.2; U18; U21.
- Water tower
 - B2.2; BT1.3; BT2.2, BW1.2; CP2; CO3.6; CO7; CO12; CO13.1; E3.1; M5.4; TE5.1; U13; U16.2.
- Waterworks
 - C2.8; C2.13, CO1; CO5.1; TE7.1.
- Weavers' cottages
 - BT1.4; BT14.7; CO3.8; CO4.1; U16.7; U16.8.
- Windmill
 - BT2.4; BT11; BT12; BW3; C5; R3, TE11; T6; U4; U17.1; U20.4.
- Wool market
 - T4.
- Workers' housing
 - BT2.3; BT10.3; BT14.3; BT14.4; BT14.5; E3.2; E7.3; E14.2; M2.2; M2.3; M2.4; M2.5; M2.6; TE9.8; T3.2; T7.1; T7.2; T7.3; T8; U16.9; U16.10.
- Workhouse
 - B2.3; BT1.7; CO8, U10.3, U16.14.

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THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

This book is published to mark the AIA's 2012 Conference at Writtle College, Chelmsford, Essex. The AIA was established in 1973 to promote the study of industrial archaeology and encourage improved standards of recording, research, conservation and publication. It aims to support individuals and groups involved in the study and recording of past industrial activity and the preservation of industrial monuments, to represent the interests of industrial archaeology at national level, to hold conferences and seminars, and to publish the results of research.

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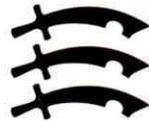
ACKNOWLEDGEMENTS

I would like to give my thanks to the following and acknowledge the help, advice and support given by them, without which the production of this gazetteer would have been a much more difficult task. To the staff of the Historic Environment Branch of Essex County Council for their advice and help with access to the industrial sites on the Historic Environment Record, to the thematic surveys and photographs, especially Laura Belton, who also produced the excellent maps. To Adrian Corder-Birch and Chris Cock for advice and photographs. To the Essex Society for Archaeology and History for their very generous donation towards the production costs of the gazetteer. To John Stengelhofen for his patience, advice and hard work in putting together this publication. Finally to my wife Pat for her patience and support during the fieldwork and writing.

**Association for Industrial Archaeology
Annual Conference 2012
WRITTLE,
CHELMSFORD
ESSEX**



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ARCHAEOLOGY AND
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Essex County Council

ISBN 978 0 9560251 1 1