INDUSTRIAL HOUSING IN ESSEX

COMPARATIVE SURVEY OF MODERN/INDUSTRIAL SITES AND MONUMENTS

No. 17



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2006



Essex County Council Historic Environment

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An archaeological, architectural and historical appraisal of housing provided by industry

COMPARATIVE SURVEY OF MODERN / INDUSTRIAL SITES AND MONUMENTS No. 17

Report by Tony Crosby, Adam Garwood and Adrian Corder-Birch

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Front cover: Factory Terrace, Halstead (EHER 26119)

1. Introduction

This report details the results of an extensive county-wide survey of the housing provided by industrialists and industrial companies to attract and retain an effective and loyal workforce. The survey focused upon extant housing sited on or near to the place of work but did not include:

- Houses in which industrial activity took place alongside the provision of accommodation, e.g. weavers' cottages (see The Essex Textile Industry, Crosby 2001).
- Houses associated with transport, built to accommodate staff at their place of work, e.g. station masters, lock-keepers etc. These are covered in the surveys of individual transport routes, (see 'The Flitch Way', Pratt, 2003 and 'The Chelmer and Blackwater Navigation and Conservation Area', Kemble, Gould & Pratt, 2001).
- Houses specifically associated with the Courtauld family, as these have already documented in 'The Essex Textile Industry', Crosby, 2001, and are listed in Appendix I of this report.
- Houses provided by a landowner such as estate and farm workers cottages.

The aim of the survey is to establish priorities within the industrial housing identified, to assess existing statutory designations and to formulate a coherent management strategy. Assessing the significance of each site and recommending a statutory framework for the future management will ensure that each site is fully considered and an appropriate response given should significant remains become threatened. Listed Building or Conservation Area status ensures a sympathetic approach to alteration and is a means to prevent unnecessary demolition and/or insensitive works. Such constraints and particularly Conservation Area status are not always sufficient to preserve the internal integrity of a building and in these cases the associated social context and meaning may be lost. Therefore, where appropriate, recommendations are made that current internal configurations should be inspected and assessed whenever the opportunity presents itself.

This report should <u>not</u> be considered as a complete list of all housing in Essex associated with the industrial workforce. As has been stated above, certain categories have been omitted from this survey for reasons of expediency and duplication. Furthermore as documentary and field research progressed more examples of housing associated with a much broader range of industries than initially envisaged were uncovered. With this in mind and for reasons of practicality the survey stayed within the limits initially agreed in the project design and therefore should not be seen as a definitive work but as a baseline survey against which future sites can be assessed and compared.

Through on-site assessments of the buildings/sites external character, features and architecture, an appraisal of their relative historic, architectural and group significance was made. The survey assessed some 54 sites/groups of houses, totalling over 2277 individual properties associated with 18 different industries. Of the

2277 buildings, 123 (5.4%) already have statutory protection through listing and 1008 (44%) lie within a designated Conservation Area. Initially this figure appears to represent a significant percentage of the housing surveyed, however, when scrutinised, it becomes clear that of the 1008 buildings, more than 80% are contained within just two settlements, i.e. Silver End (Crittall) and East Tilbury (Bata). If these two planned settlements are removed from the equation then only 158 buildings (7%) of the total stock of buildings lie within a Conservation Area.

2. Layout of the Report

This report is divided into several sections. Section 3 summarises the provision of industrial housing in a national context, followed in Section 4 by a more detailed assessment of the situation in Essex itself. Section 5 considers the architectural characteristics and particularly the comparisons that can be made, not just over time and between industries, but also the relationship between design and hierarchy.

The priorities are established in Section 6; the criteria for statutory protection are critically appraised and where appropriate sites and structures of outstanding merit have been recommended for statutory protection. The need for more detailed recording is also considered.

An inventory, provided at the back of the report, contains information on all the sites and is grouped according to industry and ordered numerically (were possible) by Essex Historic Environment Record (EHER) Number. Each assessment sheet includes a description of the building(s), their archaeological potential, the site's significance, current statutory protection, recommended action and future management strategy. Each site is also graded according to local, regional, national or international importance. The textual information is supplemented by at least one photograph, a current map and a copy of the appropriate 1st, 2nd 3rd and/or 4th edition OS map.

3. National Context

With the Industrial Revolution came the large-scale extraction and processing of minerals, production of consumer goods and transportation of raw materials and finished products. This move towards greater mass production required considerably more labour, however the manpower was not necessarily where it was required. Mining and water-powered production were frequently based away from the existing urban centres while as new factories were being developed in urban areas, they did not necessarily have an available workforce to support them. Thus, in the late C18 and C19 there was an increasing demand for housing to facilitate these new industrial centres – the mines, textile mills, ironworks, factories etc. of the extractive and manufacturing industries.

Although some of the required new housing was built by speculative builders for rent or sale or alternatively in the C20 by Local Authorities (e.g. London County Council built the Becontree Estate in Dagenham which housed many workers for the Ford car plant in Dagenham), some industrialists assumed this responsibility for themselves. The breadth of motivation for industrialists to do something about workers' housing varied and hence so did the quality of the houses provided. Some

built simple, cheap accommodation lacking basic amenities in order to meet the need in the cheapest way possible: back-to-back cottages with no gardens, shared water supply and inadequate sanitary facilities, sited close to the smoking factory chimneys are well documented and accurate images of the age.

However, even as early as the late C18 certain more enlightened employers such as the Strutts at their mill at Belper, Derbyshire or Greg at Styal, Cheshire, provided higher standard housing along with facilities such as schools, shops and chapels. By the 1820s Ashworths, a non-conformist family of cotton spinners from Bolton, 'realised the expediency of well housed, content operatives in the mills...' and provided housing with piped water, decoration and even book shelves. Saltaire (founded 1850) is generally credited as the first industrial model village. Here Sir Titus Salt fulfilled his dream of an industrial community away from the heavy industrial atmosphere of urban Bradford by providing hygienic living conditions for his employees, a church, dining rooms, steam laundry, school room and lecture hall.

A tradition of industrial model villages continued through the 1800s to the end of the C19. Port Sunlight, Lever Brothers' self contained model community began in 1888 with terraced cottages and semi-detached houses designed with gardens in open space, while Cadbury's Bournville offered similar living conditions as well as recreational, social and educational opportunities for its employees. Designed by Parker and Unwin in 1901, Rowntree's model factory village at New Earswick is still considered the most influential, successful and copied example of its type.

While for some industrialists the motivation was mere economics and accordingly they only provided the bare necessities, others provided more and better facilities born out of a more paternalistic approach to the workforce, and desire to influence all aspects of their workers' lives. Others had a genuine concern for the welfare of their workforce, as they realised that a healthy, content workforce was a loyal and productive one. During the later C19 industrialists continued to commission housing despite increases in house building encouraged by Parliamentary legislation which enabled Local Authorities to provide housing for the working classes.

In 1902 Ebenezer Howard re-published his vision in 'Garden Cities of Tomorrow' and working alongside Parker and Unwin, the first Garden City at Letchworth in Hertfordshire was started, followed closely by Welwyn Garden City after the First World War. Municipal housing had now begun to take over from the private provider, particularly following the Housing & Town Planning Act 1909, which gave Local Authorities more power to build and let houses and a succession of Acts established after the War provided further impetus for council house building.

4. The Essex Context

At the start of the Industrial Revolution Essex was a rural, agricultural county with few large urban areas and no vast mineral wealth to be exploited. As its own industries developed, the need to provide housing to attract and retain a workforce close to the place of work became an imperative. Although housing had been built for the workers on the rural estates, such as those built by Lord Braybrook at Audley End following the landscaping of his estate c.1764, the first non-agricultural. industrial housing in the county was that built in the early C18 by Richard Rigby (1690 – 1730) at Mistley. As well as renovating existing properties he built new houses and provided community facilities, but by the 1760s, as industry expanded and the local population increased, Richard Rigby's successor (also Richard Rigby, 1722 – 1788) continued his fathers works by building a further 12 cottages at Mistley Green, Tendring (EHER 34672). In 1777 the London brewer Samuel Whitbread purchased land in Purfleet with the purpose of extracting chalk to supply brickworks, lime burners and later cement manufacturers. Confronted by the same problems with housing stock as experienced by Rigby some decades before, Whitbread built 12 guarry workers cottages (EHER 35182), a school and a church for the instruction of the workers' families at Botany Pit in 1790. During the early C19 the commercial expansion of the Royal Gunpowder Works, Waltham Abbey, driven by the requirements of the Napoleonic Wars saw the provision of new housing near to the works, particularly along High Bridge Street (now demolished) and Powder Mill Lane (EHER 34132/41 & 40638).

It is only when industrialisation becomes firmly established in Essex that significant levels of industrial housing is built. Until the 1870s there were occasional developments, such as those built by the Gibson family in Abbey Lane, Saffron Walden (EHER 26822) in the 1840s and the first of the developments associated with brick making, at Thornwood, Epping (EHER 40563) in the mid C19. This early period of development also included the establishment, in 1864, of the Gas Works and associated managers' house in White Colne (EHER 40645) and the construction of three-storey tenements in Roydon (EHER 33681).

Although not specifically built by an industrialist, two notable examples of tenements for craftsmen and artisans were built at Alpha Place and Artisans Dwellings in Saffron Walden during the mid to late C19. Alpha Place (EHER 26987) is a development of 16 three-storey tenements built in 1850 as two parallel terraces of eight (Figure 1) and Artisans Dwellings (EHER 40646), are 16 two-storey concrete houses built in 1882 (Figure 2). According to the census returns of 1861 (Alpha Place) and 1891 (Artisans Dwellings), they were occupied by various craftsmen such as carpenters, painters, tailors, boot & shoemakers, coach builders, domestic staff and a brewer's labourer. Interestingly Artisans Dwellings were constructed by and using concrete from Dix, Green & Co., cement makers of West Road, Saffron Walden and were built as a means to showcase their product as a building material.

The 1870s seem to be the time when the main phase of building cottages and houses for the employees of the various developing industries of Essex began. Robert Warner moved the family business to Walton-on-the-Naze, establishing the Crescent Foundry there in 1871/2. The company built its first houses, Broomfield Cottages, in the early 1870s, shortly followed by housing in Saville Street and First

Avenue (EHER 40604-6) and a workers education centre and dining hall, Crescent Hall.

The Courtaulds, a Huguenot family, first settled in Spitalfields, East London, in the late 1680s. George (1761 - 1823) became involved in the silk industry in Essex in 1799, but it was his son, Samuel (1793 - 1881) who founded the family business in Bocking and Braintree during the second decade of the C19. By the middle of that century Samuel Courtauld & Co. developed its three main operational bases at Bocking, Braintree and Halstead and the business flourished there and elsewhere well into the next century. Despite the changes in the silk industry towards the end of the C19 Courtaulds' success continued well into the C20 as they diversified into artificial fibres and particularly rayon which they continued to manufacture in Essex until the 1980s. In common with many successful Victorian business families, particularly those from non-conformist backgrounds, they were benefactors towards their workforce and the local communities by providing churches, public buildings and parks, schools, cottage hospitals and much more.

Although there was a pattern to the development of model industrial communities. especially amongst the textile companies of the north, Essex Industrialists like the Courtaulds and the Hunts, preferred to develop housing and facilities within the settlements in which the works were situated. Courtaulds began in 1872 with the construction of five pairs of semi-detached cottages in Church Street, Bocking (EHER 28006). In the same year Factory Terrace in Halstead was built; this consisted of one terrace of six and another of ten three-storey industrial tenements (EHER 26119). Sited adjacent to the mill in Halstead the Courtaulds built The Causeway, a group of staff houses comprising a pair of houses and a terrace of ten two-storey cottages (EHER 26111–13) with a dining room for employees at one end. Between the early 1920s and 1935 and after a 40 year hiatus, Courtaulds constructed a further 55 company houses in Halstead. The first were five pairs of semi-detached houses in Vicarage Meadow (EHER 15894) adjacent to Factory Terrace and the remainder were detached, semi-detached and terraced houses on or around Hedingham Road and Colchester Road (EHER 15839-42 & 15890). All were built in what became known as the 'Courtauld Tudor' style, an Arts & Crafts style in a Garden Suburb setting. The Homes of Rest in Halstead were another contribution by the company to the workforce and the community at large.

Robert Hunt settled in Earls Colne in 1825 working as a millwright. His business flourished and by 1851 he was making agricultural implements to such a standard that he was able to exhibit them at the Great Exhibition. By the late 1860s major redevelopment of the Atlas Works site was taking place under the management of Reuben Hunt, one of Robert's sons, and the business continued to trade there until the 1980s. Attracting and retaining a workforce, which increased from single figures in 1850 to 20 in 1860, 49 in 1870 and 127 in 1880, became a major issue for Hunts. The provision of housing was the solution and it began in 1872 in Foundry Lane with a terrace of 12 cottages, Hibernia Cottages (EHER 28723), followed by Belle Vue Cottages in 1876 (EHER 28724). The works expanded in the 1880s and the workforce increased to 200 by 1890 and over 300 by 1905. Consequently more workers houses were built around Earls Colne and in Great Tey. The period 1905 - 1912 saw the development of semi-detached villas for management staff, their design and layout strongly influenced by the Garden City movement and like the

Courtaulds, Hunt demonstrated a social responsibility by providing community facilities including a village hall and bungalows for retired workers.

During the second half of the C19, Mistley in Tendring emerged as one of the major malting centres in East Anglia based on the success of the maltsters Free, Rodwell & Co Ltd. The company established a purpose built workers' settlement at New Mistley, which, in addition to terraced housing (EHER 40586-90), provided a school, an inn and a Methodist Chapel. Robert Free's own house, The Elms, lay within New Mistley and stood prominently overlooking the quay, his malthouses and the employees' route to and from work. Not far from New Mistley a similar scheme but on a much larger scale, was developed at Parkeston (EHER 40635) near Harwich. Following the imposition of a duty on coal entering Harwich in 1874 the Great Eastern Railway (GER) decided to build its own deep water quay to the west of Harwich at Ray Island (Parkeston Quay). During these works the township of Parkeston ('Parkes Town', named after the Company Director Charles H. Parkes), was built for the employees of GER on land to the south of the quay. Housing up to 600 people Parkeston also provided a primary and secondary school, Anglican and Methodist churches, a village hall. Co-operative store, fire station, a hotel, sports ground and electrical power sourced from its own power station within the Quay. During the 1870s housing was built for the employees of Carey & Birch Steam Plough Works, Rochford (EHER 40627) and various terraced houses were provided by Bentalls Iron Foundry around Heybridge. Locally renown for Bentalls concrete cottages (EHER 38249), the company continued to provide housing, but on a lesser scale, up until 1915-20.

During the period from the 1880s through to the early 1900s many smaller employers, principally brickmakers, developed housing adjacent to their works and in the case of the brickmakers this housing probably also served as an advertisement for their own products. It was during this period that another engineering company, Thomas Hollick, built two terraces of houses in South Fambridge (EHER 40626).

In 1897 Kynoch Ltd, manufacturers of high explosives established a factory and accompanying model workers' village within the Essex marshes between Shell Haven and Holehaven Creeks. Known as Kynochtown (EHER 7239), the 200 acre site comprised a main factory, manufacturing nitro explosives, cordite, smokeless sporting powder and black gunpowder plus a self-contained community including shops, a post office, schools, an institute and considerable housing provision, all built using bricks sourced from the company's own brickworks. Entry to the factory and village was through huge gates flanked by the carved stone Kynoch Lions while links with the London, Tilbury, Southend Railway were maintained via Thames Haven and the Corringham Light Railway. Following the end of WWI Kynochtown was closed, all the buildings demolished and the site redeveloped as part of the Shellhaven oil complex.

The turn of the century witnessed the food and drink industries having to provide housing with Ridleys the brewers of Hartford End doing so in the late C19 (EHER 40595-6) and then Wilkin & Sons Ltd, jam makers, initiating a major development in Tiptree from the early C20 (EHER 40591-4).

The next major phase of house building surfaces during the inter-war period with a number of major and historically significant developments. Rippers Ltd., joinery manufacturers, established a very extensive joinery works adjacent to the Colne Valley & Halstead Railway at Sible & Castle Hedingham Station. Initially during 1920-21 they built 14 wooden bungalows (now demolished), followed in 1924-28 by a further 94 semi-detached houses to the north and south of the works (EHER 40629-33).

The Land Settlement Association Ltd. was founded in 1934 to provide work on small holdings for unemployed industrial workers and ex-miners relocated to the South East from northern England. Two LSA estates were established in Essex - the Foxash Estate in Lawford (EHER 40581-85) and one around Great and Little Yeldham and Tilbury Juxta Clare (EHER 40573-80). These estates consisted of individual plots of land each comprising a house, out-buildings, glasshouses, piggeries and poultry huts as appropriate. Although the houses were scattered singly around the estates, they were managed through a central administrative and storage area. The houses were taken over by the Ministry of Agriculture during the post war period and then sold off in the late 1950s.

The two developments of international significance in Essex were also begun during this period. Francis H. Crittall in his autobiography recalled 'a recent tour...of several large towns in Yorkshire, where [he] was appalled by a series of sordid pictures of entire streets built back-to-back, the front doors abutting on the cobbled pavements'. Crittall saw it as good business sense not just philanthropy to pay careful attention to the welfare of his employees. Such views were becoming commonplace in the early C20 amongst enlightened manufacturers and he was aware that 'many men dreamed this dream... of a garden city in the country', when he began to consider the problem of housing his companys' most important asset, its workforce.

In 1924 1100 people were employed by Crittalls at Braintree, 400 at Witham and over 100 at Heybridge. The vast increase in workload following the end of WWI and the post-war re-construction of the business, required a similar increase in the workforce, however in an area where rises in population were slow, workers had to be attracted from other parts of the country. When the jobs at the new Silver End factory were created they were advertised all over the country and particularly in the depressed Midlands, Northern England and Wales. This brought many semi-skilled workers into an area already lacking surplus building stock. Although some Council housing was built in Braintree and Witham, it could not meet the demands of the influx and housing became an immediate concern to Crittalls as their very existence and development depended upon resolving this situation.

This challenge appealed to Francis who as a young man had wanted to be a builder and here at last he saw a golden opportunity to build on a large scale. He had in the immediate post-war years funded the building of an estate of 65 houses, designed by Walter F. Crittall and C.H.B. Quennell. The initial pair built in 1918 were at 156 & 158 Cressing Road, Braintree and when complete all 65 houses formed the Clockhouse Way estate, a development renowned as having some of the first flatroofed houses in the country (EHER 40617).

Francis did consider building superior housing in and around Braintree, close to the Manor Works in Braintree, including a Clockhouse Way extension, but wished to avoid crowding small dwellings onto a limited plot which would only offer small gardens. What Francis ideally wanted to achieve was 'a pleasant village of a new order, planted amid fields and trees and streams; ... its quiet thoroughfares, its fine open spaces, its modern dwellings with ample gardens, its playing fields, recreations and amusements ... a contented community of Crittall families enjoying the amenities of town life in a rural setting'.

In 1925, 220 acres of farm land located mid-way between Braintree and Witham at Silver End, were purchased for £7,500. This provided enough land for an average of six houses per acre, each built with adequate space for gardens and within a setting benefiting from ample amenity space. The Silver End Development Co. was set up by Crittall in December 1925 to co-ordinate the whole development, estimated at a cost of £600,000. The early months of 1926 saw the building of the factory while plans for the houses were finalised. Crittall wanted every house to have hot and cold water in both bathroom and scullery, the hot water coming from a properly equipped cooking and heating stove, gas or electric light, proper sanitation and gardens front and back. The houses were to be developed at the rate of 100 per year for five years and were to be of a variety of types to suit the finances and other requirements of the families.

Non-parlour type houses were designed with three bedrooms, a bathroom upstairs, and a lounge-living room and scullery below; the parlour type were to have an extra living room, while both types were provided with small outer barns. For higher salaried staff larger houses, containing 4 and 5 bedrooms with 2 and 3 reception rooms were planned. Rents were set between 10/6d [52p] and 19/9d [99p] per week with an option to purchase the house in 20 years. The development rate allowed for just less than 500 houses to be built and on 17th April 1926 the foundation stone of the first house, 15 Temple Lane, was laid. By the 5th of July when the factory began working several houses were near completion and by the end of 1926, 50 houses were occupied and the whole village was completed by 1932. The village also provided a number of community facilities including a village hall with a library, theatre-cum-cinema seating 400, restaurant, lecture room with various other games and social rooms; hotel; departmental store and two churches. Recreational facilities included playing fields for football and cricket, a bowling green, tennis courts and memorial gardens.

The second development of significance is the Bata development in East Tilbury. Tomas Bata founded a shoe manufacturing company in Czechoslovakia in 1900 and having expanded to England decided to build a company village adjacent to its factory at East Tilbury in 1933. The design was based on Bata's previous developments in Czechoslovakia, including the Czech factory town of Zlin. The factory buildings tower above the workers settlement and are built adopting a 'daylight' construction, which naturally increases light levels to manufacturing floors, with a steel and concrete superstructure. The majority of the village was built in the International Modern style to designs by architects Vladimir Karfik and Frantizek L. Gahura. The village originally had a Hotel (now flats), a farm (now derelict land), a primary school, playing fields, shops and a village hall.

As the public water supply industry developed to meet the needs of both the rural communities, whose supply was still primitive, and the growing urban areas, it was increasingly realised that due to the remoteness of these sites accompanying staff housing was essential. In the 1920s the Southend Waterworks Langford site was the first to be developed with staff housing (EHER 40603) followed in the 1930s by the waterworks at Tiptree (EHER 40601), Langham (EHER 40598-9) and Layer-de-la-Have (EHER 40600). In the post-war period Langford had additional housing constructed, while the West Hanningfield scheme of the 1950s included staff housing from the outset. Post War (Cold War) development and research into armaments and propellants and the continued growth of the former Royal Gunpowder Works in Waltham Abbey led to the construction of a discrete housing estate for MOD employees by the ARDE (Armament Research and Development Establishment) on the eastern side of the town. This estate provided modern housing across the employment spectrum from managerial to trainee levels of employee. Maintained and overseen by a Housing Association administered by the MOD the housing remained with the MOD until they were finally sold off as private housing during the 1980s.

In analysing the development of industrial housing in Essex, four different models of development may be proposed:

- 1. A few houses built around an isolated industrial site, e.g. many of the brickworks, Ridley's Brewery and the various waterworks sites.
- 2. Houses built in an existing settlement, e.g. some brickworks, Warners, Wilkins, Bentalls and Rippers.
- 3. Developments of housing and community facilities with major impact upon an existing settlement, e.g. Courtauld and Hunt.
- 4. The planned industrial community, i.e. Silver End, East Tilbury and Parkeston

5. Architecture

There is a wide variety of architectural styles used for this housing, ranging from the ubiquitous red-brick Victorian terrace to the more unusual International Modern Movement style used at Silver End and East Tilbury. This variety is a result of a number of factors including the status of the company erecting the houses; the purposes for which they were built (for example as a demonstration of the company's product); the status of the staff for whom they were built; and the architectural styles of the age, particularly as this report includes housing built over a 200 year period.

The earliest recorded development is the mid C18 housing at Mistley Thorn, which were built in a plain Georgian vernacular style of architecture (EHER 34672). The housing associated with the brickworks spans a period from the mid C19 through to the early C20 and adopts the prevalent red-brick, slate roofed Victorian style of terraces and semi-detached houses. Some of these were plain and simple in design while others were embellished, using decorative brick and tile work, to advertise the company's product .e.g. William Clover's terrace at Hatfield Peverel (EHER 40561)

and Mark Gentry's terraces in Sible and Castle Hedingham (EHER 40555-6). Other industries which built houses during the second half of the C19 adopted a similar plain style, e.g. the engineering works of Carey & Birch in Rochford (EHER 40627), Hollick at South Fambridge (EHER 40626) and Warner at Walton-on-the Naze (EHER 40604-06), plus the food manufacturing industries of Robert Free at New Mistley (EHER 40586-90) and Ridleys Brewery at Hartford End (EHER 40595-96).

There are also examples of tenements being built, for example the two terraces of three-storey tenements at Alpha Place in Saffron Walden (EHER 26987) built for local artisans, the terrace in Roydon (EHER 33681), Stock Terrace in Heybridge built by Bentalls (EHER 40620) and those built by Courtauld at Factory Terrace in Halstead (EHER 26119).

Courtaulds is an example of a company which built housing over a long period of time and hence the architectural style and levels of provision changed accordingly. This began with Victorian semi-detached cottages at Bocking (EHER 28006) and Factory Terrace in Halstead, the Queen Anne Revival style houses in The Causeway, Halstead (EHER 26111-26113) and the 'Courtauld Tudor' style of interwar housing also in Halstead (EHER 15839 – 42, 15890 & 15894).

Reuben Hunt and the Atlas Works in Earls Colne, provide a good example of this multi-period development. He began in the 1870s by building simple, but decorative, red-brick and slate roofed terraced cottages – Hibernia Cottages of 1872 (EHER 28723) and Belle Vue Cottages of 1876 (EHER 28724). As the company moved into the early C20 the terraces became more substantial and semi-detached villas anticipating a more Edwardian style were built. Finally in the first quarter of the C20 a 'Garden City' style was introduced with semi-detached houses set within large front and rear gardens.

This inter-war period also saw Rippers Joinery build over 100 dwellings (94 houses & 14 bungalows) in Sible Hedingham, although unlike the Hunts or Courtaulds houses, all lacked architectural refinement. The houses built by the Land Settlement Association on their two Essex estates are also guite plain and as such reflect the functionality and economy which drove their design. This period also saw the establishment of the two most significant industrial housing developments in Essex, those at Silver End and East Tilbury. Crittall had experimented with a small estate of International Modern Movement style, flat-roofed, concrete houses at Clockhouse Way in Braintree just after the First World War (EHER 40617) and continued to use this style at Silver End. Although this model village was infamous at that time and is noted today for its Moderne style of housing, Silver End mainly comprises (66%) neo-Georgian pitched roofed houses built in terraces, as flats and as semi-detached and detached houses. Bata's East Tilbury development, on the other hand, shows its European roots by providing an entire settlement of flat roofed International Modern Movement houses designed by Czech architects Karfik & Gahura, with pitched roofed housing added only after the Second World War.

While the water companies employed the International Modern Movement architectural style for their water treatment works, specifically Langham, Layer-de-la-Haye and Tiptree, it is clear that a more restrained modern treatment was used for their housing. The use of the various types of houses from terraced cottages and semi-detached villas to substantial detached houses was not just a product of changing taste, it also reflected the different status of the workers for whom these houses were built. This is clearly shown at Parkeston, where management, middle management and general workers accommodation is clearly recognisable in the architecture and the spatial hierarchies within the estate and at Silver End where four and five bed-roomed detached houses were built for the higher-salaried staff. Francis Crittall's own detached house - The Manors – was on a site presiding over the village centre. This may be viewed as paternalism similar to that of many C19 philanthropic industrialists, but Crittall did say in his autobiography that he wished to avoid becoming 'that awful pest - the busybody employer who suffocates with charity and kills with kindness'.

6. **Priorities**

The priorities are generally dealt with as one complete set of sites, although the four models proposed above are reflected in the arguments being made for the relative priorities of the sites. Many of the industrial housing developments identified in this survey, although associated with particular extractive and manufacturing sites, were initially isolated, small and typical of the terraces of the Victorian era. In most cases the associated industry has long since ceased and their sites have been redeveloped leaving the workers housing within expanded urban environments, divorced from its original industry and often indistinguishable from later developments.

Sites of local significance (*) and low priority

All of these houses have now transferred into private ownership and inevitably modernisation, affecting original materials, external and internal features/character is likely to have been carried out. Most of these sites are of local significance only, are not listed and in most cases do not warrant such protection. However, as these industrial workers cottages provide an important addition to the heritage of their respected settlements/areas they should be included in any future Village Design Statements (VDS) or Local Development Documents (LDD). Where they fall within areas affected by large scale development (Thames Gateway etc) their importance should be considered as part of the Master Plan Development (MPD)

EHER NO.	SITE NAME	CURRENT STATUS	RECOMMENDED ACTION
40565	30-36 Kavanaghs Road & 1-6 Kavanaghs Terrace, Brentwood	None	Inclusion in Local Development Document
40561	The Terrace, Hatfield Peverel	None	Inclusion in Village Design Statement
40562	56-66 South Primrose Hill, Chelmsford	None	Inclusion in Local Development Document
40558-9	1-32 Hill Cottages, Great Bentley	None	Inclusion in Village Design Statement

	88-114 New Road, Mill-	None	Inclusion in
40570-71		NOTE	
40370-71	head Cottages & Millhead		Village Design
	Villas, Common Road		Statement
	Great Wakering	Niewe	la alcaisa in
40507	1-10 Brickfield Cottages,	None	Inclusion in
40567	Pooles Lane, Hullbridge		Village Design
			Statement
40557	Quay Lane, Kirby-le-Soken	None	Inclusion in
			Village Design
			Statement
40568	127-165 Ashingdon Road,	None	Inclusion in
	Rochford		Local Development
			Document
40564	Mount Road, Theydon	None	Inclusion in
	Mount		Village Design
			Statement
40566	75-89 Nevendon Road,	None	Inclusion in
	Wickford		Local Development
			Document
	Various addresses, Great	Those within Great	Maintain current
40613-6	Tey (Reuben Hunt)	Tey fall into the	status
		Conservation Area	otattio
40627	101-119 Stambridge Road,	None	Inclusion in
10021	Rochford	None	Local Development
			Document
40626	21-32 St Thomas's Road,	None	Inclusion in
40020	South Fambridge	None	Village Design
	South r ambridge		Statement
	88-112 Hall Lane, 75-103	None	Conservation Area
40604-6	Saville Street and 26-38, 9-	None	extension to
40004-0	13 & 19-35 First Avenue,		include Canada
	Walton-on-the Naze		_
40597		None	Gardens Inclusion in
40597	Waterworks Drive, Cloes	NOTE	
	Lane, Clacton		Local Development Document
40045			
40645	Gas works site, Colneford	Within the	Maintain current
	Hill, White Colne	Conservation Area	status
	1-22 The Cobbins,1-27	None	Inclusion in
40000 44	Thaxted Way,1-16		Local Development
40639-44	Quenden Drive,69-111		Document
	Monkswood Avenue,Lea		
	View, 5-39 Walton Gardens		
	Waltham Abbey		
40624-5	3-4 Saltcote Cottages, 1-8	None	Inclusion in
	Boulton Cottages		Local Development
	Heybridge		Document
40634	Jarrah Cottages	None	Inclusion in Local
	Purfleet		Development
			Document

40572	Cement Block Cottages Grays	None	Inclusion Local Development Document
40637	Corringham Road Stanford-le-Hope	None	Inclusion Local Development Document
40555-6	1-12 & 14 Wethersfield Road, Sible Hedingham 87-93 Nunnery Street, Castle Hedingham	None	Inclusion in Village Design Statement

Sites of local significance with additional factors (*/**)

Even examples of the commonplace merit protection as a reflection of what was an important period of development – the provision of housing to attract and retain a loyal workforce in Industrial Age Essex. A number of sites with additional qualities are included in this section and of these the more significant examples are recommended for statutory protection.

EHER NO.	SITE NAME	CURRENT STATUS	RECOMMENDED ACTION
40563	Brickfield Cottages, High Road, Thornwood, Epping	None	List Grade II or Conservation Area due to early date and surviving out- buildings
40560	Church Lane, Marks Tey	None	Houses survive with the brickworks and should be included in any future Village Design Statement
40569	Cherry Orchard Lane Rochford	None	Houses and brickworks remain as a group and should be included in any future Local Development Document
40595-6	1-4 Mill Lane and 'Sandhills' & Hillside', Chelmsford Road, Hartford End	None	The brewery housing and the redundant brewery should be included in any future Local Development Document or VDS
26822	4-8 Abbey Lane, Saffron Walden	Listed Grade II	Maintain current status

28006 *	121-139 Church Street,	Listed Grade II and	Maintain current
20000	Bocking	Conservation Area	status
15839-42, 15890 & 15894 *	Various numbers in Box Mill Lane, Hedingham Road, Mill Chase, Colchester Road, Mallows Field & Vicarage Meadow, Halstead	Some lie within the Conservation Area	Extend Halstead Conservation Area to include more 'Courtauld Tudor' style company housing
40629-33	154-188 Swan Street, 1-24 Brook Terrace, 1&2 Crosspath, 1-24 Yeldham Road and 1-31 & 35-53 (odds) Station Road, Sible Hedingham	None	New Conservation Area to include Rippers' extensive inter-war housing development
40618-22	25-32 Well Terrace, 1-12 Stock Terrace, The Square 1-16 The Roothings, 1-20 Springfield Cottages, Heybridge	None	Extend or create a new Conservation Area to incorporate these sites
40623	1-8 Barnfield Cottages, Heybridge	None	List Grade II, unusual concrete construction, sharing many architectural parallels with Grade II Woodfield Cottages
40635	Parkeston, Makin Rd, 43- 54 & 6-39 Hamilton Street, 40-82 & 3-38 Tyler Street, 1-41 Adelaide Street, 1-38 Princess Street, 2-30 Parkeston Rd, 1-113 Garland Rd	None	New Conservation Area to include historic Parkeston
40636	Botany Cottages Purfleet	None	Extend the Purfleet Conservation Area to incorporate Botany Cottages

* These sites appear in Appendix I: Workers' and other housing built by Courtauld

Sites of local/regional significance with the original industry still being operational (*/**)

In some instances the industrial sites associated with the housing still remain in operation. Although this relationship is common within the public water supply industry, in no other industry, apart from Wilkins (jam manufactures) of Tiptree, does this association persist. Where this relationship is present there is greater significance due to group value and the association between industry and its housing. Some of the waterworks sites have been recommended for listing and for

their group value the associated houses should be included, through curtilage listing, within this protection. As this housing provides an important addition to the heritage of their respected settlements/areas all should be included in future Village Design Statements (VDS) or Local Development Documents (LDD)

EHER NO.	SITE NAME	CURRENT STATUS	RECOMMENDED ACTION
40591-4	1-18 Cherry Chase, Mulberry Walk, 5-23 Chapel Hill, 1-4 Factory Hill, Tiptree	None	Creation of a new Conservation Area to include all housing
40598-9	'Kilmory', 1-6 High Lift Villas Road and 1-3 Low Lift Cottages, Langham	None	Inclusion in Village Design Statement
40600	Essex House and 1-13 Waterworks Close, Layer- de-la-Haye	None	Inclusion in Village Design Statement
40601	Waterworks Cottages, Grange Road, Tiptree	None	Inclusion in Village Design Statement
40602	1-18 Middlemead, West Hanningfield	None	Inclusion in Village Design Statement or Local Development Documents
40603	1-16 Ulting Lane, Langford	Conservation Area	Inclusion in Village Design Statement

Sites of Regional significance (**)

Nine sites or groups of sites are judged to be at least regionally significance, in three cases due to the community facilities provided by the company and their overall group value. The two Courtauld sites in Halstead, Factory Terrace (EHER No 26119) and The Causeway (EHER No. 26111 & 26112), identified in the Textile Industry Report (Crosby 2001, p22) were noted for their association with Courtaulds, their group value and architectural merit. Both sites lie within a Conservation Area and are Grade II Listed. Hunts' housing in Earls Colne has significance based on its association with the historic Atlas Iron Works, their group value and, in some cases, architectural merit. As some of this housing is already listed and most lies within the Conservation Area, the only recommendation is to extend the existing Conservation Area to include all Hunts' housing. The workers houses at what was New Mistley also share group value with the remaining maltings built by Free, Rodwell & Co. (all of which are listed) and the community facilities they provided. The housing lies within the existing Conservation Area and this status should be maintained.

The housing and outbuildings buildings which comprise the two Land Settlement Association (LSA) estates at Foxash and Great Yeldham are unique in Essex and with only 23 equivalent sites founded across the entire country, they are unusual on a national level. The estates are generally intact and retain much of their original layout, although, some houses have inevitably been altered and/or extended since

transferring into private ownership. The two LSA estates demonstrate the investment and commitment by the Ministry of Agriculture and Food and Fisheries (MAFF) working with the Carnegie Trust to relocate, retrain and provide a new beginning for unemployed workers from northern England, and the response by architects for this considerable undertaking. As the group survives they are at least regionally important but this assessment may need to be strengthened when the significance of all the other LSA estates has been established.

The three-storey tenements in Roydon and the quarry workers cottages, Hollow Cottages, in Purfleet have both been recognised as significant buildings and accordingly listed Grade II. The Clerk of Works apartments, Chief Clerks quarters and workers terrace allied to the Royal Gunpowder Works in Waltham Abbey all retain obvious local historic importance and group value with contemporary production buildings (many now scheduled) built by the works during the time of the Napoleonic Wars. All enjoy protection through Conservation Area status and appropriately two are listed grade II.

EHER NO.	SITE NAME	CURRENT STATUS	RECOMMENDED ACTION
26119	Factory Terrace, Halstead	Listed Grade II and	Maintain current
		Conservation Area	status
26111/2	The Causeway, Halstead	Listed Grade II and	Maintain current
		Conservation Area	status
(28723 &	Hunts' Housing in Earls	Some Listed Grade	Ensure all houses
28724)	Colne	II and most in	are within the
		Conservation Area	Conservation Area
40573-80 &	Land Settlement	None	New Conservation
40581-85	Association Estates at		Areas to include
	Foxash and Great Yeldham		both LSA estates
40586-90	Various addresses, New	Conservation Area	Maintain current
	Mistley	(& Listed Grade ?)	status
33681	27-37 High Street, Roydon	Listed Grade II	Maintain current
			status
40638,	9, Powdermill Lane, 15-18	Listed Grade II or	Maintain current
34132 &	Powdermill Lane & The	Conservation Area	status
34141	Lodge, Waltham Abbey		
	Hollow Cottages	Listed Grade II and	Maintain current
35182	Purfleet	Conservation Area	status

Sites of National significance (***)

Two sites have been identified as nationally significant. One is the planned C18 Georgian town of Mistley Thorn, built by the Rigby family to house and provide facilities for the workers of Mistley quay and its associated industries. All the housing lies within the Conservation Area and are listed grade II. The second is Bentalls Concrete Cottages. All forty of the original concrete cottages built in Heybridge remain and many retain original architectural features, building plans and of particular significance adjacent wash/utility houses. The completeness of this group,

its integrity and the unusual and early use of structural concrete demonstrate their significance and justify their Grade II listing.

EHER NO.	SITE NAME	CURRENT STATUS	RECOMMENDED ACTION
34645-46 34651-59 34672	High Street and 1-12 The Green, Mistley	Listed Grade II and Conservation Area	Maintain current status
38249	116-156 Woodfield Cottages	Listed Grade II	Maintain current status

Sites of International significance (****)

Finally three sites of the 54 assessed are deemed to be of international significance due to their planning, design and architecture. Two of the settlements were self-contained 'model villages' providing necessary community and recreational facilities and all three sites retain buildings of international architectural merit. These three settlements are the Clockhouse Way Estate in Braintree, an experimental estate of flat-roofed, concrete and steel houses built by Crittalls immediately after World War I; the subsequent planned company village at Silver End; and the planned settlement at East Tilbury built by Bata. Four of the first houses designed by Crittall and Quennell on the Clockhouse Way estate are listed Grade II and this status should be maintained. The settlements at Silver End and East Tibury both lie within discrete Conservation Areas and in both cases examples of typical and more architecturally significant buildings have been listed grade II. Their status should be maintained.

EHER NO.	SITE NAME	CURRENT STATUS	RECOMMENDED ACTION
28016 28017 40617	1-41 Clockhouse Way and 156-194 Cressing Road, Braintree	156-158 Cressing Road & 21-22 Clockhouse Way are Listed Grade II	Maintain current status. Based on innovative design consider upgrading to II*
40477 29000-6 29007-13 28878-80	Various addresses in Silver End	Whole original village is a Conservation Area and some houses are listed	Maintain current status. Should be identified in the Conservation Area Plan and a CA appraisal should be undertaken to re- assess the existing designation.
15138 39321-7 39303	Various addresses in East Tilbury	Whole village is a Conservation Area	Maintain current status. Consider more examples of housing for listing and identify in the Conservation Area Plan

7. Discussion

The survey assessed some 54 sites/groups of houses, totalling 2277 individual properties of which a respectable 1008 buildings (44%) already lie within a designated Conservation Area. Based on the assessments made during the field survey only two specific sites, Brickfield Cottages, Thornwood, Epping (EHER 40563) and Barnfield Cottages, Heybridge (EHER 40623), comprising a total of 16 individual dwellings (two terraces of 8), are recommended for listing at grade II. Bearing in mind large redevelopment schemes such as Thames Gateway and the impact it will have on the character of the historic landscape, particularly in south Essex, an appraisal of the Bata housing at East Tilbury should be undertaken in the near future with a view to identifying and listing typical examples of management and worker level housing. Also the importance of this site and similar sites should be fully considered and included as part of the Master Plan Development.

A considerable 721 individual properties from just 10 of the 54 sites assessed (representing 58% of all the undesignated buildings), are recommended for protection through Conservation Area designation. These include a range of site types from small clusters or terraces of buildings, such as Botany Cottages, Purfleet (EHER 40636) and the Courtauld 'Tudor' houses at Mill Chase (EHER 15841), Hedingham Road (EHER 15840) and Vicarage Meadow (EHER 15894) through to large developments within an existing settlement, like those built by Rippers Joinery in Sible Hedingham (EHER 40629-33) and entire planned developments such as the industrial town of Parkeston (EHER 40635). Although for some of these sites inclusion within Conservation Areas will not be able to 'turn back the clock' and reinstate original features or prevent appropriate modernisation or updating of the buildings, it will nonetheless protect the historic character of these buildings and the neighbourhood by ensuring that any new development or alteration respects the building and corresponds with the surrounding area.

The findings of this report has revealed the diversity of the Industrial housing provision which survives in Essex, the multiplicity of periods and architectural styles, the social hierarchies and through analysis, the four distinctive groups into which all the housing can be slotted. The national importance of 10 sites or 123 individual industrial workers cottages has already been recognised through listing and a large number already lie within Conservation Areas. However, a large number still remain outside statutory protection and it is hoped that this survey will either address that situation through designation or raise their profile so that they are including within Village Design Statements or Local Development Plans.

Whether individual houses, terraces or entire planned towns, it is clear that these otherwise ordinary buildings make a positive contribution to the historic and architectural character of the settlements in which they were built. Through association with industry, which in some cases still lies within living memory, industrial housing can provide a sense of place to the community and a resonance with local residents and their families. In most instances this housing remains the only connection to the industry which built them and in many cases with the same industry which shaped the historic and economic landscape of the area. Many of these houses were built during an important period of industrial growth in Essex and as a group they demonstrate not just the lengths employers went to in order to attract a workforce but highlight issues such as class and status as seen in the hierarchical nature of the provision, philanthropy and the commitment to innovative design and planning.

This project has been able to establish the existence of the various sites in Essex and provide an assessment of this resource based mainly on their external integrity. An internal inspection was not undertaken and therefore an assessment or inspection is recommended, and where appropriate this may be followed by recording and a review of statutory protection. Through such analysis it may be possible to establish the original spatial configuration, use of the various spaces and the extent to which the original plan form survives. Such evidence will help inform and elucidate upon the design, use and social history of the housing provision.

8. Conclusions

Despite Essex never having the heavy extractive and manufacturing industries typical of the industrial North and Midlands, its original pattern of scattered rural settlements and eventual expanding urban centres did require its industry to attract and retain a workforce that was not necessarily readily to hand. There remains a history of industrial provision initiated by a wide range of industrial concerns from local traditional industries such as small independent brickmakers to large corporate manufacturers such as Bata Shoes. These housing developments can comprise just a few cottages clustered around an otherwise isolated works, areas of housing built within an existing settlement or ultimately entire 'model' workers communities built around the manufacturing base. The earliest recorded industrial housing in Essex dates from the early-mid C18 at Mistley Thorn but during the next century it becomes much more widespread, particularly in the second half of the C19, during a period of industrial growth stimulated by the ever expanding railway infrastructure and availability of markets. The provision continued into the earlier C20 when possibly three of the most significant industrial housing developments in Essex were built in Braintree, Silver End and East Tilbury. Post war (II) inertia and the collapse of small local industries such a brickmaking effectively spelt the end for much of the industrial housing in Essex, although, through necessity, some industries like the Water Companies and growth industries such as the Armament Research and Development Establishment at Waltham Abbey, continued to provide company housing up to the 1960s.

Considering factors such as the length of time over which the housing was built, the requirements of different companies and the particular needs of the staff, a wide range of housing types and architectural styles, from Georgian terraces, red-brick Victorian terraces and semi-detached villas to neo-Georgian and Modernist houses, have been constructed. Inevitably there has been some loss to redevelopment, particularly smaller sites adjacent to brickworks, but examples of all ages, types and styles of housing still survive. This housing reflects not just a basic provision of shelter but rather a considerable improvement in the standard of housing and facilities for the employees and their families. As well as somewhere to work and live, many of the resident workers, particularly those in the larger settlements or model villages, benefited from a range of leisure, religious and educational facilities provided by their respective employers.

On a wider note, approximately 84% of the countries population live in suburban areas (DETR 2000) and decisions on future developments particularly within target areas such as The Thames Gateway, M11 Corridor or the forthcoming London Olympics will clearly have major implications on many people living in and around Essex. English Heritage, in an article on the Future of Historic Suburbs (2006, in prep) advocates careful planning rather than a process of incremental or unmanaged change and believes that such an approach can protect and enhance the identity, character and sustainability of these areas. Therefore local authorities, working with county and national bodies need to develop a vision on how they foresee the development of their historic suburbs, villages and urban areas and ensure that appropriate key strategies are contained within their statutory Development Plan Documents.

9. Recommended future policy

The Council will seek sympathetic schemes of re-use for those buildings and structures associated with the industrial heritage of the District/Borough that are recognised as being of local, regional, national and/or international significance. Proposals that fail to appreciate the special character of a building/ or building complex or that result in the loss of a sites historic integrity will not normally be accepted. In order to understand the original purpose/function and evolution of a structure or structures the District may require an impact assessment to be submitted as a part of the planning application. Where the history of a site is known the District may require a building record to be made prior to conversion taking place.

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