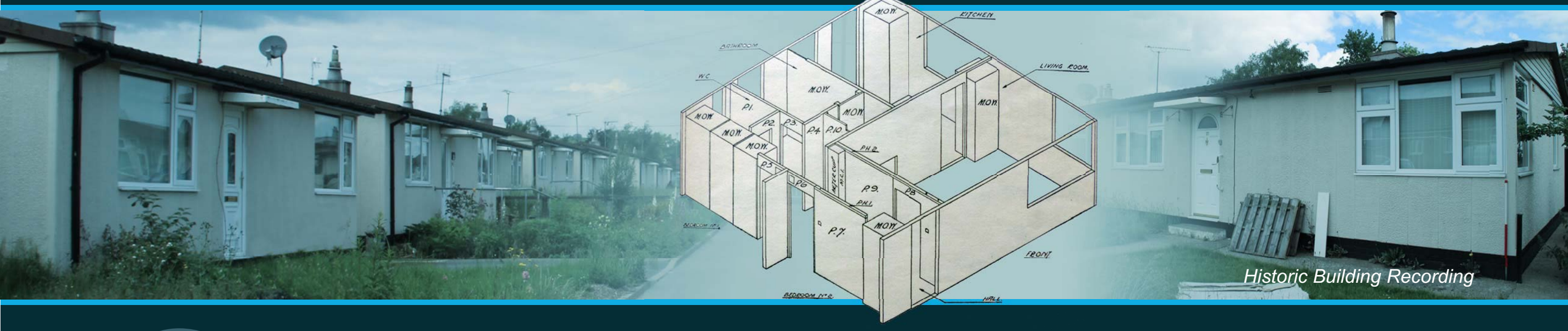
The Eckington and Killamarsh Tarran Bungalow Estates Derbyshire



Historic Building Recording

Cotswold Archaeology

Andover • Cirencester • Exeter • Milton Keynes

For: CgMs Consulting
On behalf of: Galliford Try

CA Project Number: 660187
CA Report Number: 15678

September 2015

Tarran Mark IV Prefabricated Bungalow Estates
Eckington and Killamarsh
Derbyshire

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Table of Contents

Introduction

Executive Summary

In June 2013 Cotswold Archaeology was commissioned by CgMs Consulting to carry out a programme of Historic Building Recording of the Tarran Mark IV prefabricated bungalow estates at Eckington and Killamarsh, Derbyshire (centered on SK 42351 78919 and SK 45379 81036 respectively; Figures 1).

Prior to undertaking this programme of Historic Building Recording, Cotswold Archaeology were previously involved in the preparation of two Historic Building Appraisals to inform the planning applications for demolition works (Cotswold Archaeology, 2013c and 2013d).

Scope and Objectives

The objective of this report was to provide a comprehensive descriptive record of the estates supplemented by a photographic record and annotated plans. The building recording has been supplemented by additional research into the Eckington and Killamarsh estates, 1940s prefabricated bungalows and Tarran Industries Ltd.

The aim was not to record each individual bungalow but to select a number of structures as a representative example.

This report features a selection of images for each estate / bungalow, with a full photographic survey produced for the archive.

Methodology

This project has been carried out in accordance with the Written Scheme of Investigations (WSIs) prepared by Cotswold Archaeology for a programme of Historic Building Recording of the estates prior to demolition, as approved by Derbyshire County Council (Cotswold Archaeology, 2013a and 2013b).

The building recording has been carried out to meet the requirements of a 'Level 2' survey as defined in the Historic England publication *Understanding Historic Buildings: A Guide to Good Recording Practice* (English Heritage, 2006). It was also guided by the Chartered Institute for Archaeologists *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures* (CIfA, 2014).

A Level 2 survey is a descriptive record, and comprises a photographic survey alongside a written description of the estates and bungalows, combined with historical research. Some elements of the research and descriptive text relating to the history of the estates and Tarran Mark IV bungalows is considered to incorporate stages of 'Level 3' building recording requirements.

Site visits were undertaken on various dates between February 2013 and June 2015, in accordance with the phased demolition of the site and the resulting availability of access.

Research into the history of the prefabricated bungalow estates at Eckington and Killamarsh, as well as Tarran Industries Ltd. and the Mark 4 bungalows, was conducted via visits to Derbyshire Record Office in Matlock and the National Archives, Kew.

This report and the associated digital photographic archive will be deposited the Archaeology Data Service (ADS).

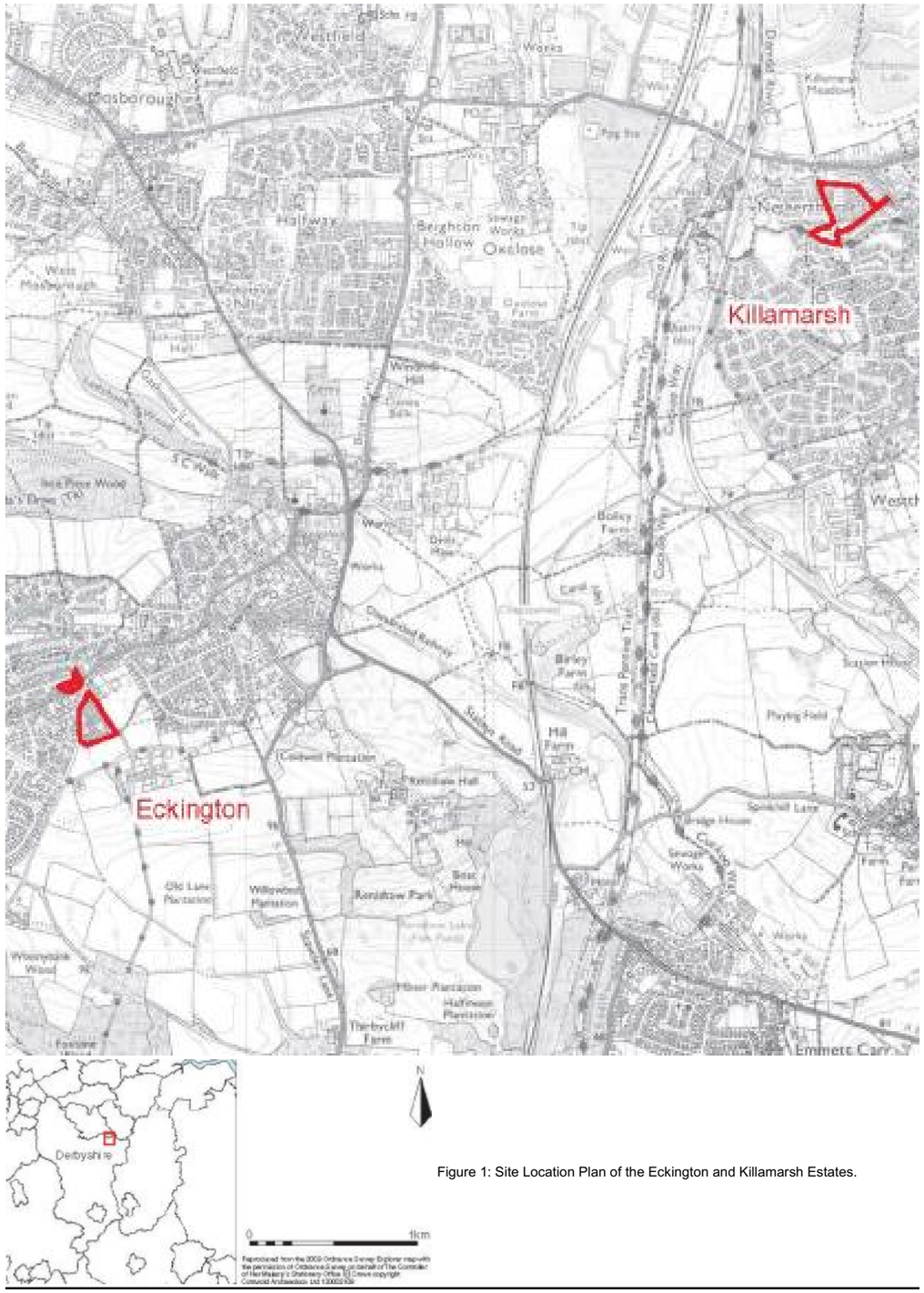

Figure 1: Site Location Plan of the Eckington and Killamarsh Estates.

A History of 1940s Prefabricated Bungalows

Introduction

The early to mid 20th century witnessed a fundamental change in house building in Britain, both in terms of construction methods and the establishment of social housing. Greater emphasis was being placed upon slum clearance and the provision of better quality housing as part of the growing Welfare State. New techniques of construction were also being utilised, and from the 1920s the idea of prefabrication methods for the construction of residential dwellings was to becoming more widely explored.

The outbreak of World War Two in 1939 however effectively put a stop to house building in Britain, and pre-war housing schemes were put on hold.

As the War drew to a close, however, it was becoming clear that Britain was about to face the worst housing shortage of the 20th century. Thousands of houses across the country had been lost to German bombing raids, with many more badly damaged, and the housing market was set for a slow recovery due to the shortage of materials and labour.

In 1945 it was estimated that 750,000 new homes were required in England and Wales in 1945. A new, quick housing solution was needed, and needed urgently.

In 1945 the new Labour Government placed social housing central to their welfare reforms. Plans were drawn up for a major building programme, drawing on the themes established prior to 1939. Aneurin Bevan, the Minister of Health, was responsible for the housing programme which focused heavily on local authority involvement rather than reliance on the private sector.

Added pressure on the Government also came in the form of the soldiers returning from the War, and the idea of 'Homes for Heroes', previously coined after World War One, once again became a key driver. The War had also affected the expectations of the British public, in particular the rising working class, who now sought more from the housing stock and the provision of the State following election promises made by the Labour Government.

A Ministry of Works document dating to 1945 entitled the 'Directorate of Works: Government Department for the Execution of Building and Civil Engineering Projects' stated:

'Post-war programmes, and the transition programmes they follow, will no doubt be greatly affected by changes in the social set up, by the influences of Soviet Russia and of America (and of the impacts with Germany), and the industrial and technical development of all kinds.

In general it is probable that there will be a widening range of requirements arising from the more diverse needs and great complexity of modern living. The cry will be for more accommodation at less expenditure of labour and materials, but maintaining a high quality of design an appearance'.

(Ministry of Works, 1945)

The Housing (Temporary Accommodation) Act 1944

A year previously under the former Conservative Government, The Dudley Report recommended the use of prefabricated structures as a means to solve the impending housing crisis (Colquhoun, 2008). In October 1944, the Housing (Temporary Accommodation) Act was passed in order to put forward formal solutions to the crisis; a key element of which was the construction of temporary, prefabricated housing.

Via the Act, the Government aimed to provide enough homes for each family who required individual dwellings, and to continue the pre-war slum clearance projects. The Act set out a number of strategies to solve the housing crisis, including:

- An increase in the labour force of the building industry to pre-War levels;
- The construction of at least 300,000 homes during the two-year period after the Act;
- To prevent price inflation caused by high demand on building services;
- To subsidise privately built houses; and
- To provide for the construction of temporary, prefabricated housing.

The Act saw the allocation of £150 million for the provision of temporary housing (Davis, 2005), with the aim that the rapid construction of prefabricated housing – 'prefabs' - would provide a suitable stopgap measure until labour could be mobilised for more permanent housing.

The aforementioned Ministry of Works document states that:

The temporary house was first conceived as one built by the highly developed moto industry labour pool of completely prefabricated sectionalized pressed steel panels and fittings. These were to be brought to the site at the peak rate of 2,500 a week, capable of erecting (because of the small amount of site work necessary) in a few hours by unskilled or semi-skilled labour. Thus the proper building force got tougher again after the war was to be freed for the erection of permanent houses of which 300,000 would be built or in building by the end of the second post-war year.

The general scheme therefore was to supplement permanent housing during this time with the 300,000 promised temporary dwellings (for £150,000,000 as provided for in the Bill [Act]) *thus producing something like double the accommodation the building industry, struggling to its feet after the war years, could provide alone. The temporary houses were to be Government-owned and were calculated to have a 10-12 year life by which time it was hoped that, as permanent house building would by then have caught up with demand, they would be removed.*

(Ministry of Works, 1945)

The 1940s 'Prefabs'

Prior to the passing of the Housing (Temporary Accommodation) Act, the former Conservative Government had already begun to explore the idea of 'prefabs' as a suitable solution to the impending housing crisis.

In 1943 the Ministry of Works was established to organise the requisition of property for wartime use and the implementation of new building projects. The Ministry of Works opened the design of the new prototype temporary prefabs to competition, and approximately 1,400 designs were submitted. The designs were reviewed by the Building Research Station (BRS), a Governmental establishment set up in the 1920s to conduct research and testing for the construction and built environment sectors. During the War the BRS was involved in the testing of new military structures, alongside more confidential research such as the development of the bouncing bomb. Post-War the BRS returned to its pre-War purpose and became heavily involved in testing new prefabricated structures.

The newly designed prefabs were seeking to expand on the process of prefabrication developed in the early 20th century, utilising new techniques and materials established as part of the war effort. The majority of designs put forward had links to

Photo 1: Prefabricated bungalow estate at Folkstone, 1949 (Stevenson, 2003).

industrial practices that had boomed during the War such as motor and aircraft production, alongside companies who had a long standing reputation within the construction sector.

The first prototype temporary bungalow to be unveiled was the 'Portal Bungalow', a steel panelled structure developed by the motor industry and named after the then Minister of Works, Lord Portal. The bungalows were designed to provide two bedrooms alongside a separate living room, kitchen, bathroom and toilet. Additional space was provided for the storage of bicycles and fuel. With regard to the interior of the Portal Bungalow, the 'Directorate of Works: Government Department for the Execution of Building and Civil Engineering Projects' document states:

The high standard internal fitments comprised of built-in cupboards in all rooms including the kitchen, which also had gas or electric cooker, wash boiler, sink and two draining boards, refrigerator and folding table. The bath room had built-in bath, basin, shelving and a headed towel rail, and the hall had a large airing cupboard. A slow combustion stove in the living room heated water for the bath, basin and sink and delivered warm air through ducts to the bedroom. The 4" outer walls were thermally insulated to render them equal to an 11" wall of cavity brick and were specially treated to avoid "drumming" when it rained or hailed. Scientifically designed constant flow ventilators in the wall ensure air movement without drafts. (Ministry of Works, 1945)

The newly developed prototype bungalows were widely publicised in the press, and in April 1944 five prototype prefabs, including the Portal Bungalow, were exhibited to Members of Parliament, Local Authorities and the public at the Tate Gallery, London. As part of this exhibition '*Criticisms and suggestions for improvements were welcomed, recorded and analysis, especially those from Service men and women, young married couples, those bombed out and others for whom the houses were particularly intended. A bombed-out family took up residence to give it* [the Portal Bungalow] *a practical test and some improvements and changes were made as a result'* (Ministry of Works, 1945.

The prototypes were later exhibited in Scotland, and even taken to Cairo to be shown to British troops still stationed in Egypt (Stratton & Trinder, 2000).

Of approximately 1,400 designs submitted to the Ministry of Works for the new prototype prefabs, many were rejected by the BRS at the conceptual stage, with others being dismissed on review of the construction methods.

Although slightly varying in design and construction materials, the overall presentation of the Portal Bungalow was adopted by many. This included features such as the provision of two bedrooms to the left of a hallway, a living room to the right and a standardised kitchen, bathroom and separate WC units. An important component of the structures was the inclusion of 'built in' fixtures and fittings, as well as facilities that were deemed to be more adequate than the existing social housing stock, i.e. indoor plumbing. The designs also saw a marked step forward with regard to what was being seen as an 'essential' requirement within the home. For example, the prefabs were not built with a larder and instead relied on the insertion of a fridge; a rare household item at this time.

Photo 2: Sections of an AIROH Aluminum bungalow arriving at the Tate Gallery, London, 1945 (Stevenson, 2003)

Photo 3: Sections of an AIROH Aluminum bungalow being craned into place for display at the Tate Gallery, London, 1945 (Stevenson, 2003)

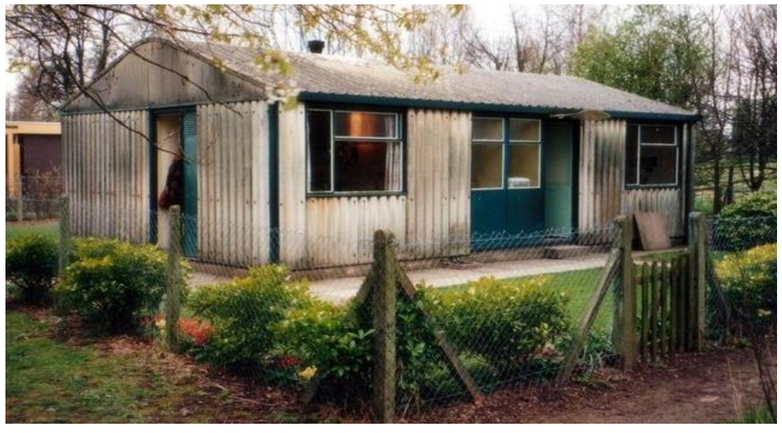

Photo 4: Arcon Bungalow on display at the Avoncroft Museum of Historic Buildings, Bromsgove (Copyright Mike Goodwin and licensed for reuse under this Creative Commons Licence)

The key to all of the designs was that a large proportion of the structures could be manufactured in a factory and delivered to site ready to assemble. Approximately eleven designs were approved as part of the Housing (Temporary Accommodation) Act; however, six of the designs dominated the productions runs. Five of the designs are discussed below with the fifth, by Tarran Industries Ltd., discussed in detail later.

The Portal Bungalow

Following the 1944 exhibition at the Tate Gallery the Portal Bungalow, as outlined above, proved to be a popular design. The required construction materials of steel and plywood were however in short supply, and as such the Portal Bungalow was never built in great volume (Davies, 2005).

Arcon

Designed by the architects responsible for the Transport Pavilion at the Festival of Britain in 1951, the Arcon bungalow was constructed of a steel frame with asbestos sheet cladding and a steel tube roof. Windows were provided by 'Crittals', and elements of the interior by 'Fisher & Ludlow', manufacturers of motorcar bodies. Nearly 40,000 Arcon bungalows were constructed by Taylor Woodrow before 1949 (Davis, 2005).

An example of an Arcon bungalow is preserved and on display at the Avoncroft Museum of Historic Buildings, Bromsgrove, Worcestershire.

Uni-Seco

Manufactured by Selection Engineering Company, mass producers of timber huts for the military, the Uni-Seco had a timber frame clad with asbestos sheeting, and a low pitched timber roof with a plasterboard ceiling beneath (Davis, 2005).

In 2009 Historic England (then English Heritage) Listed (Grade II) five Uni-Seco prefab bungalows and a prefab church on the Excalibur Estate, Catford, London.

The Excalibur Estate, which comprised 187 prefab residential dwellings and the aforementioned prefab church (St Mark's, Baudwin Road) was built between 1945 and 1946. The substantial size of the estate was a direct result of its geographical positon on the outskirts of London. By November 1940, 1,647 homes had been destroyed in the London Borough of Lewisham, in which the Excalibur Estate was situated, a total exceeded by only two other areas, Stepney and Lambeth. Lewisham also suffered when rocket bombs began to fall in June 1944 and was the second-most bombarded borough for V1s, and the third for V2s.

At the date of designation the Excalibur Estate was one of the largest surviving post-War prefab estates in England. Planning permission has subsequently been granted for the redevelopment of the estate.

The Listing Description for the prefabs on the Excalibur Estate states that they were designated for the following reasons:

- *Special interest as part of the largest surviving post-war prefab estate in England, a unique example of prefab estate planning on a large scale;*
- *Their location in one of the most heavily-bombed boroughs in the capital which compounds this historic significance;*
- *The Uni-Seco prefabs are also of special architectural interest as structures built using the innovative system of prefabrication which display modernist influences in their wrap-around corner windows and appearance of flat roofs; and*
- *These prefabs are within the least-altered portion of the important Excalibur Estate, on a road where the consistency of survival is good.* (English Heritage, 2009)

AIROH (Aircraft Industries Research Organisation on Housing) Aluminium Temporary Bungalow

Designed by five wartime aircraft manufactures, the AIROH Aluminium Temporary Bungalow was the most widely built prefab bungalow. The frame and roof were made of extruded aluminium and cladded in aluminium sheeting. The window frames were made of rolled aluminium and the roof of tongue and groove boarding. Prefabricated in four sections, the bungalow could be lifted on site via a crane (Davis, 2008, 61).

The location of the AIROH bungalows often reflected the proximity to former wartime aircraft factories and the resulting easily accessibility to the required materials. For example, a large number of AIROHs were constructed in Bristol, as a result of associations with and proximity to the Bristol Aeroplane Company.

Phoenix

Similar in design to the AIROH, the Phoenix comprised a welded steel tube frame clad in corrugated asbestos sheeting with internal timber lining and partitions, and an innovative roof of tubular steel poles. Approximately 2,428 Phoenix prefabs were erected in the United Kingdom as part of the Temporary Housing Act.

In 1998 Historic England Listed (Grade II) seventeen Phoenix prefabricated bungalows on Wake Green Road, Birmingham.

Public Reception

The process for the construction of the new prefabs involved the Government allocating the new housing stock to Local Authorities based on need; the towns and cities that had suffered the greatest bomb damage were allocated a higher percentage. The Local Authorities then decided where to construct the prefabs, with sites varying from two or three in a small bomb site to the establishment of new housing estates containing hundreds of prefabs (such as that seen on the Excalibur Estate).

Photo 5: An example of a Phoenix bungalow at Wake Green Road, Birmingham.

Photo 6: Example of an interior of a Tarran bungalow (Stevenson, 2003).

Photo 7: Example of a fitted kitchen from a prefabricated bungalow, however elements of the layout reflect that seen in the Tarran Mark IV bungalow (Stevenson, 2003),

By March 1949 150,000 temporary bungalows had been built under the Temporary Housing Act throughout England, Scotland and Wales (Stratton & Trinder, 2000); in many cases aided by a labour force of German and Italian prisoners of war. The prefab houses were widely welcomed by their new occupants and become known as the ‘palaces for the people’ (Stevenson, 2003).

Targeted at displaced families with young children, for many the prefab was their first experience of privacy and freedom away from the cramped conditions and unsanitary pre-War urban housing (Blanchet, 2003). The prefabs became synonymous with comfort and luxury and included built-in prefabricated bathroom and kitchen units (including fridge and electric cooker); a first for many of the new inhabitants. Alongside this, each prefab was also allocated its own plot of land, and prefab estates segmented by white-picket fence front gardens became part of the post-War landscape (Penrose *et al,* 2007).

At the time of construction, many areas were designed with a layout that was intended to be utilised with the later permanent housing that would replace the prefabs. The estates were arranged following the formal geometry that was popular in municipal design of the era and included features such as large greens, crescents and other attractive features (Blanchet, 2003). The design of the estates, alongside the popular features of the prefab bungalows, led to an instant sense of community that was felt among many who moved into the ‘temporary’ housing.

Despite their popularity the prefabs were never intended to be a long term solution, with each having a designed life of between 10 and 15 years (Vale, 1995). With the last prefabs under the Programme being constructed in 1949, theoretically all should have been cleared and replaced by more permanent housing by 1964. However, by 1964 only 29 per cent of prefab bungalows in England and Wales had been removed; some 67,353 remained in use as temporary housing under the Programme and a further 21,014 had been purchased by local authorities and were still occupied (Vale, 1995). In some areas the prefabs survived long enough to be bought by their tenants under the ‘right to buy’ Housing Act of 1980 (Stratton & Trinder, 2000).

Within the context of the lifespan of the prefab bungalows, as outlined above, a relatively large percentage of prefab bungalows remained within Britain at the beginning of the 21st century.

In recent decades however local authorities have sought to upgrade and replace prefab bungalows estates with what is deemed to be more suitable housing of a higher standard, resulting in the number of prefab estates in the United Kingdom diminishing.

Alongside the decline in numbers an interest in the prefab estates, both in terms of their construction and habitation, has developed with the prefab estate now being recognised as a distinct, short-lived, cultural and social phenomenon.

Tarran Industries Ltd. and the Mark IV Bungalow

"WHO IS THIS MAN TARRAN?"

A few days ago, meeting a friend over a cup of coffee we were asked the challenging question, "Who is this man Tarran, about whom you have written so much in your recent issue?" "Pardon us old man," we replied, "we had very little to say about 'this man

for in a periodical circumscribed by the diminution in paper made available under the restrictions of the Paper Control. We will, however, do our best to give you in the briefest terms, some idea of the type of man that Mr. Tarran is, as far as we know him.

Immediately after the last war, following his demobilisation from the 3rd Northumbrian Field Ambulance, with which he had served for four and a half years, four of them overseas with the 50th Division in France, a young man was to be seen almost every day trundling wood, too heavy to shoulder, on a bicycle . . . Because he could not afford a hand-cart.

STARTING AFRESH IN 1919.

That young man was Robert G. Tarran who before that war had served his seven long years apprenticeship as a hand joiner, and had been, before he was 21, foreman of his shop at the princely wage of nine shillings a week. This was founded in 1919 what has since become famous throughout the United Kingdom, the great contracting and prefabrication organisation now known as "Tarran Industries, Ltd.," of Hull, London, Edinburgh, etc.

Twenty years later, when the present war broke out, that business was employing over five thousand

Robert G. Tarran.

Photo 8: Extract from Timber and Plywood Magazine article on Robert Tarran, March 1942 (TNA: DSIR/4/2053)

'To be concerned with the provision of living places for the people, is a duty owed to your neighbour and yourself'

Robert G. Tarran, 1943

Tarran Industries Ltd. of Hull was a civil engineering company established by Robert Greenwoord Tarran in the early 1930s. Robert Tarran was a prominent figure in Hull, and was an elected member of Hull City Council and served as the Sheif of Hull.

Tarran's interest and enthusiasm for prefabrication, and in particular prefabricated homes, developed in the 1930s, and prior to the outbreak of World War Two Tarran had already begun to experiment in the production of prefabricated homes. In 1935, Tarran industries was involved in the production of prefabricated concrete panels to be used at Quarry Hill in Leeds; a large scale slum clearance project featuring the construction of 938 new flats alongside community facilities. Although fraught with problems the Quarry Hill project represented the largest single UK experiment in prefabricated housing before the War (Vale, 1995).

Tarran continued work on prefabrication during the War working under a Ministry of Defence contract for the production of prefabricated military huts, alongside aircraft and coastal defences. Shortages in timber and other materials led Tarran to reconsidered the company's former experience with prefabricated concrete panels, from which a new type of hut was developed. This hut, known as the Mark III, was a direct forerunner to the later Mark IV bungalow. The new Mark III hut utilised panels of 'Lignocrete', a new material developed by Tarran made from a mixture of Portland cement concrete with an aggregate of chemically treated, and therefore potentially inert, sawdust (Vale, 1995).

Tarran's enthusiasm for prefabricated houses continued, and he became a prominent speaker regarding post-war housing. In February 1943 Tarran gave a speech at the Housing Centre entitled 'Post-War Reconstruction' in which he set out his thoughts on the position of the Country and the need to rebuild after the war. Following the speech Tarran was described by George Hicks, the then Parliamentary Secretary of Works and Planning, as *'a man of great character, a pioneer and one of whom the industry was* proud' (Hull Daily Mail, February 24th 1943). Such speeches and the resulting publicity increased Tarran's prominence within the industry and placed him as one of the forerunners of the post-war housing programmes.

In August 1943 an example of a Tarran bungalow with walls made of Lignocrete panels was exhibited at the Conway Hall, London. A brochure produced to accompany the exhibit provided detailed plans and drawings of the bungalow, including modular drawings of the Tarran system of prefabrication, and information on how the system could be modified to produce a variety of housing styles, including two storey structures. The brochure highlights the following 'interesting features' of the exhibition bungalow:

'Total weight, including all fittings, is under 22 tons. Five 4-3on lorries can complete delivery in one day. In normal brick construction it would weigh over 80 tons/

Saving time on site work. Over 50% of total hours are in factory production.

Excluding drains, footpaths, surface concrete, fencing and external services, the bungalow can be erected and completed for occupation in less than 5 ½ days, by ten men, including all trades.'

(Tarran Industries Ltd., 1943)

The closing page of the brochure seeks to further emphasis the benefits of the Tarran System and the belief of Tarran with regard to place of prefabrication in the post-war period.

'Reasons why this TARRAN System will take its rightful place in the forefront of the Nation's Post-War Building Plans:

A sound and rapid method of building which satisfies both layman and architect, and is the result of twenty years practical.

A permanent Factory Produced Building Unit adaptable to a very wide range of elevations.

By comparison with other buildings methods the low heat losses, as detailed on the Thermal conductivity diagram, show the insulating efficiency of the TARRAN System.'

(Tarran Industries Ltd., 1943)

Alongside the exhibiting of the prototype bungalow, the BRS had begun to conducted their analysis of the Tarran System and Lignocrete.

Archives of the BRS held at the National Archives, Kew contains correspondence between Robert Tarran, the Ministry of Works and the BRS from August and September 1943 detailing the research being undertaken and the outcome of the aforementioned exhibition.

On the 6th September 1943, Robert Tarran wrote to I.G. Evans, the Acting Director of the BRS, following Evan's visit to the exhibition. A transcription of the letter is as follows:

Dear Mr Evans,

I was more than pleased to see you taking a real interest in things at the Exhibition the other day, along with Sir George Burt and others, and I would be pleased if there could be a little closer

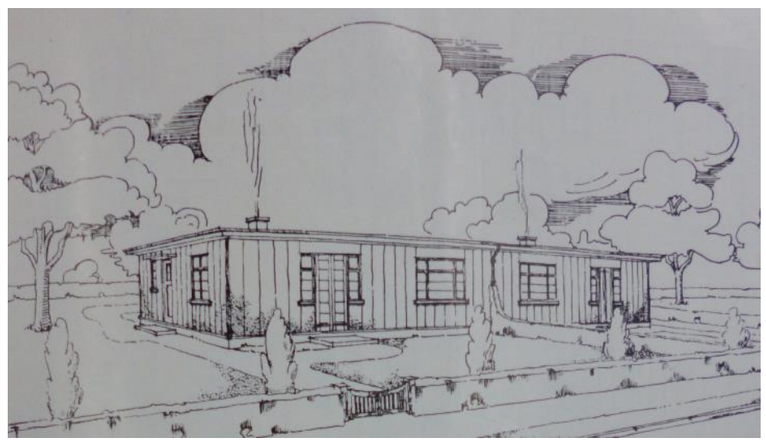

Photo 9: Concept drawing of a Tarran bungalow showed within the 1943 exhibition brochure (TNA: DSIR/4/2053)

work together in matters associated with everything new in building so that we, who need bother to do any researching at all for any pecuniary commercial or business gain, do at least receive a little help and encouragement, not just only in the work associated with Lignocrete for over 15 years now but also in any other matters concerned with cast stone an our own methods for overcoming crazing.

It was nice of you to come and spend the time you did at the Exhibition, and I should be pleased if you could make it possible to come to Hull and actually see for yourself what we are trying to do in this very prejudiced and old fashioned Industry. I should also be pleased if you would examine the qualities of Lignocrete as we have known it over a period of many years, at the same time examining closely the wear and tear and usages of this material.

It may be of interest for you know that the whole of the Bungalow, as actually erected at Conway Hall, was taken down and loaded in 8 ½ hours by twelve men, has arrived back in Hull, is now unloaded, and no units have sustained any damage.

Yours sincerely,

Robert G. Tarran

(R.G. Tarran, 1943)

Before Evans could reply to Tarran, a 'Draft for a general note on the Tarran House which the Burt Committee may wish to submit to the Ministry of Works' was issued by the Technical Sub-Committee of the BRS based on the results of internal testing and the exhibited prototype bungalow. The note stated that the majority of the design was deemed as satisfactory although a number of minor amendments to the internal design would be required. Particular doubts were however expressed with regard to the use of the Lignocrete on the external panels and potential weathering issues, and the methods of joining the vertical walling units. The document does however continue by stating that Tarran has agreed with the BRS to facilitate further research into the use of Lignocrete.

The BRS reports upon which this note was based are held within the BRS archive at the National Archives, Kew.

The note ends with the following conclusions:

'Generally, we considered that Messrs. Tarran have made a useful contribution to the subject of alterative methods of house production and construction, especially in regard to the floor and roof construction and the methods of assembly of the interior, but the work should be regarded as still in its experimental phase. We are favourably impressed by Messrs. Tarran's organisational methods in this factory, in transport, and in the control of site

Photo 10: Detail from the front cover of the Tarran Mark IV Construction Handbook. (TNA: WORK/56/14)

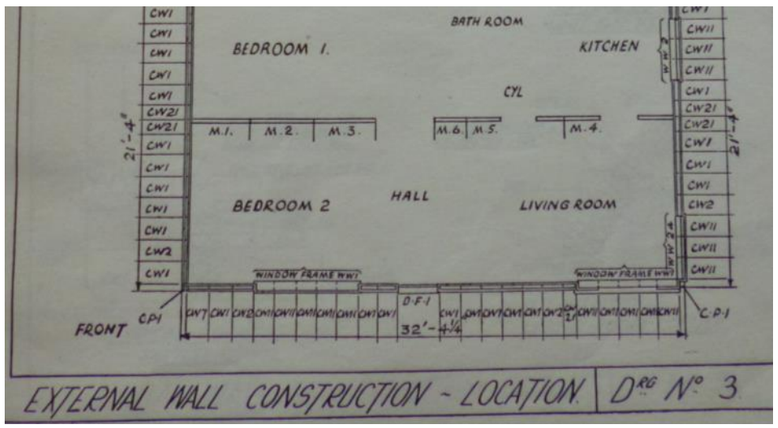

Photo 11: Extract from the Tarran Mark IV Construction Handbook. (TNA: WORK/56/14)

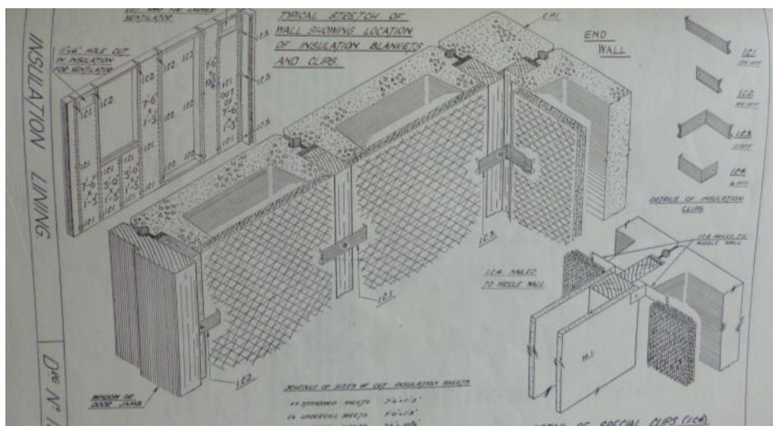

Photo 12: Extract from the Tarran Mark IV Construction Handbook. (TNA: WORK/56/14)

erection. Provided that Messrs. Tarran are prepared to make amendments as suggested by the Sub-Committee and the Building Research Station, every facility should be given to them to continue with their most valuable pioneer work.

(BRS, 1943).

Correspondence which follows between Evans and Tarran demonstrates the subsequent cooperation between the two parties with regard to the future development of the Tarran Systems.

It was the efforts of the company, its establishing relationship with the BRS and its publicity that led Tarran's opportunity to participate in the Temporary Housing Programme (Vale, 1995, 13). Without Tarran's persistent interest in prefabrication it is perhaps doubtful that a prefabricated concrete bungalow would have been chosen by the Programme due to the cost of distribution as a result of the heavy concrete panels. However, Tarran went on to become one of the major providers of prefab bungalows under the Programme (Vale, 1995, 13).

It is believed that 19,014 Tarran bungalows were erected during the late 1940s. The majority of surviving Tarran bungalows appear to be located in the north of England and Scotland, close to the sites of production (Vale, 1995). This may be in part due to the fact that because of the concrete panelling used to construct the bungalow, the Tarran was the heaviest and therefore most costly prefab bungalow to distribute; the unit weighed 14 tonnes compared to an average of 8 tonnes for the other designs (Vale, 1995, 13).

The Tarran Mark IV Bungalow

The Tarran Mark IV bungalow drew upon construction techniques developed for the Mark III, and focused upon the layout established by the Portal Bungalow. The structure was constructed out of a prefabricated concrete panels, which were transported complete to site alongside the remainder of the fittings required for construction. A notable feature of the Tarran Mark IV was the corner window in the living room.

The basic layout of the structure comprised a central hallway with a living room and kitchen to the right and two bedrooms to the left; the separate W.C. and bathroom were located at the end of the corridor. A key feature of the bungalow were the 'built-in' elements. These include built in storage in the living room, bathroom and bedroom, alongside a fully fitted kitchen. The built in units were cleverly incorporated into 'voids' within the design to make the best use of space possible. Heating was centred on a coal fire in the living room connected to heating ducts which circulated throughout the bungalow.

Figure 2: Standard floorplan of the Tarran Mark IV Bungalow as derived from the Tarran Mark IV Construction Handbook. (TNA: WORK/56/14).

Figure 3: 3D representation of the layout of the Tarran Mark IV Bungalow based on the floorplan.

The Eckington Estate

The Eckington Estate

The estate of Tarran Mark IV bungalows at Eckington was located between Pitt Street and Pipeyard Lane, accessed near the junction of West Street and High Street, the main highway through the town. An isolated area of four bungalows were also located to the north of the main estate on West Street.

The estate was situated within land boundaries clearly displayed on 19th century mapping, with Pitt Street having originally led to a colliery to the south of the estate. During the 19th century a brick and pipe yard was located on the site, however by the beginning of the 20th century the area was laid out for recreational use. During a survey of the estate in 2013 prior to commencement of demolition works, a boundary wall predating the construction of the bungalows was identified. In the south east corner and running along the eastern boundary of the estate; this wall was likely to be related to the earlier brick and pipe yard.

The site was allocated for the provision of temporary housing by Chesterfield Rural District Council in April 1945 (Photo 13), and in total 41 Tarran Mark IV bungalows were constructed. The provision of the temporary housing by the Government to Chesterfield Rural District Council is likely to be as result of bomb damage sustained at nearby settlements such as Chesterfield and Sheffield, alongside potentially elements of slum clearance. Further prefab bungalow estates were established within the wider area including at Killamarsh (see later) and New Houghton.

The following description of the layout of the Eckington Estate is based on the aforementioned 2013 survey, as depicted on Figure 4.

The layout of the Eckington estate was designed to create a sense of an individual community as well as proving an element of green space. Eighteen bungalows were situated on the central main road through the estate, with their front gardens facing out onto the road. This road was limited in its width, and was reflective of an estate built in the 1940s prior to the increased domestic use of the motorcar. At the time of survey a number of the properties had converted sections of their front gardens in order to provide a parking space to meet the modern demand of vehicle ownership.

Photo 13: Extract from the authorisation document for the allocation of land at the Eckington Estate, April 1945 (TNA HLG/23/22461)

At the southern end of the main road there was a small cul-de-sac of eight properties (Numbers 12-19) centred on an area of green space.

The main road through the estate made a 90° turn after Number 33 and re-joined Pitt Street to the south east. Along this section there were two further cul-de-sacs (Numbers 21-55 and 27-31) and two properties adjacent to the road (Numbers 26 and 32).

The cul-de-sac in the south east of the site (Numbers 21-25) would originally have included six properties; however, Number 20 was demolished between 2008 and 2010. The removal of the property is most likely to have been in response to fire damage and vandalism caused whilst the property had been unoccupied (Pers Comm. 2013). There was little trace of the previous property at the time of survey bar the obvious plot size and the remnants of the pathway to the front of the building. Within the cul-de-sac, the gardens of the Numbers 21 and 22 backed onto Numbers 16-18.

An additional five properties were located on Pipeyard Lane. The front boundaries of these bungalow plots were marked by an earlier boundary wall, and gaps had been cut into the wall to form new entrances to the properties. The back gardens of these properties backed onto the gardens of Numbers 6-11.

In 2013 seven garages were recorded on the estate. The garage adjacent to Number 12 was believed to be an earlier example of garage structures, and though not necessarily contemporary to the original construction of the bungalows was thought to date to the 1950s or early 1960s. The garage had a concrete frame and was clad in corrugated metal sheeting with a corrugated asbestos roof. Further garages on the estate were late 20th century concrete additions.

In addition to the main Eckington estate, there were four further prefab bungalows to the north of West Street. The bungalows were identical in their design, however their layout was more clustered rather than being centred on a central route way.

The Eckington Bungalows

The Tarran Mark IV bungalows at the time of construction would have matched the description as set out in the previous section of this report.

In 2013 a number of external alterations were recorded throughout the Eckington estate, the majority of which was related to the updating and modification of the bungalows during the latter part of the 20th century. Such alterations included in the insertion of UPVC double glazed units to all window and door openings; the insertion of a plastic porch above the front door and the replacement of the asbestos roof tiles with concrete tiles. Due to the recurring design of these features it is assumed that such modifications were all made a at the same date. A number of the bungalows (Numbers 39, 18 and 29) were noted as having small extensions to the rear.

Each bungalow was situated within its own plot of land, with a front and back garden. The front gardens were accessed either directly from the main road through the estate or from a pedestrian side route. There was a small alleyway down the side of each bungalow providing access to the rear. A number of the front entranceways had been adapted with concrete ramps to provide easier access for residents with impaired mobility.

Plot boundaries were marked by hedging or fencing, with the plot size dependent on the location of the bungalow within the estate. In some cases the bungalows run back to back with a simple boundary fence separating the two. Each back garden featured a prefabricated concrete coal shed, located in proximity to the back door and within easy access to the alleyway leading to the front of the bungalow.

Prior to demolition the majority of the bungalows remained unaltered and therefore retained the identical and uniform nature of their original construction.

The following section provides a written description of the individual bungalows surveyed on the Eckington estate. The aim of the section is not to provide a repetition of the intended form of the structure, but instead to explore and articulate changes that have been made to the internal elements of the bungalows. Such adaptations contribute to the 'story' of the Eckington estate and the habitation of the 'prefab' bungalows between 1945 and 2015. The bungalows discussed were chosen in order to present a representative example of the structures on the estate. For each bungalow an executive summary is provided (in the grey box).

Figure 4: Site Plan of the Eckington Bungalows.

Photo 14: View south along the central routeway through the estate with bungalows either side.

Photo 15: Northern end of the central routeway through the estate, joining Pitt Street.

Photo 16: Cul-de-sac and green space at the southern end of the

Photo 17: Bungalows clustered around the green space at the southern end of the estate.

Photo 18: Number 41 at the northern end of the central routeway.

Photo 19: Number 40 at the northern end of the central routeway.

Photo 20: Cul-de-sac at the southern end of the estate (Nos 27-31).

Photo 21 Number 7 on the central routeway prior to demolition works, note the conversion for car parking and ‘easy access’.

Photo 22: Garage adjacent to No 12, thought to be 1950s / 1960s in date.

Number 1 Pitt Street

Number 1 Pitt Street was located at the far northern edge of the Eckington Estate, at the main entrance when accessed from the High Street (Figure 4). At the time of survey, the property had just been vacated by Galliford Try who had been using the property as their Site Office during the construction works. As a result of this a number of features associated with the later use of the property rather than it's former domestic use were noted.

As with the updates seen throughout the estate, all the windows and doors had been replaced with UPVC units.

The general layout and the internal features remained largely unaltered, with key adaptations / alterations being:

- Replacement of the original oil fire heating system with electric heaters and radiators;
- Conversion of the W.C. and bathroom into one room, and the insertion of later bathroom units; and
- Replacement of sections of the original kitchen units.

Such changes are considered to relate to the upgrading of the energy efficiency of the bungalow and heating systems, replacement of outdated fixtures (i.e. in the bathroom and kitchen) alongside adaptions require to meet the needs of residence in the latter phase of its use.

Hallway

The hallway of remained largely as constructed. The only alterations involved the reconfiguration of the southern end resulting from changes to the layout of the bathroom / W.C., and the airing cupboard and boiler unit.

Living Room

The living room of retained the original layout and dimensions, alongside the built-in unit adjacent to the opening to the kitchen.

The main alteration within the living room was the replacement of the original coal fired heating unit with an electric heater on the south elevation. Evidence of radiators fittings within the remainder of the property indicated that the heating system had been updated during the later part of the 20th century.

Kitchen

The kitchen of had been largely renovated and units replaced during the latter part of the 20th century. The layout and location of the modern kitchen units did however reflect the layout of the original kitchen.

Despite the renovation, elements of the original kitchen and remnants of the former 'built in' units could be identified. The unit below the later sink was thought, in part, to be formed of the original kitchen units, as was the cupboard to the left-hand side of the sink. Alcoves on the western elevation of the kitchen reflected part of the original design of the kitchen, and the sink taps may have been original.

The built in units adjacent to the opening to the living room were considered to be remnants of the original units however the doors have been altered.

Front Bedroom

The front bedroom remained largely unaltered. All original built in units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been converted into one room. Access to the combined bathroom was via an opening inline with the location of the original opening to the W.C.; however, the opening had been brought further into the hallway to enlarge the size of the room. Elements of the former dividing wall between the bathroom and the W.C. remained, providing a small partition between the two elements of the combined room. All fixtures and fittings in the bathroom / W.C. were later additions.

This was a change common to many of the bungalows.

Other Features of Note

Due to the change in the heating system, former ventilation openings associated within the heating ducts had been plastered over.

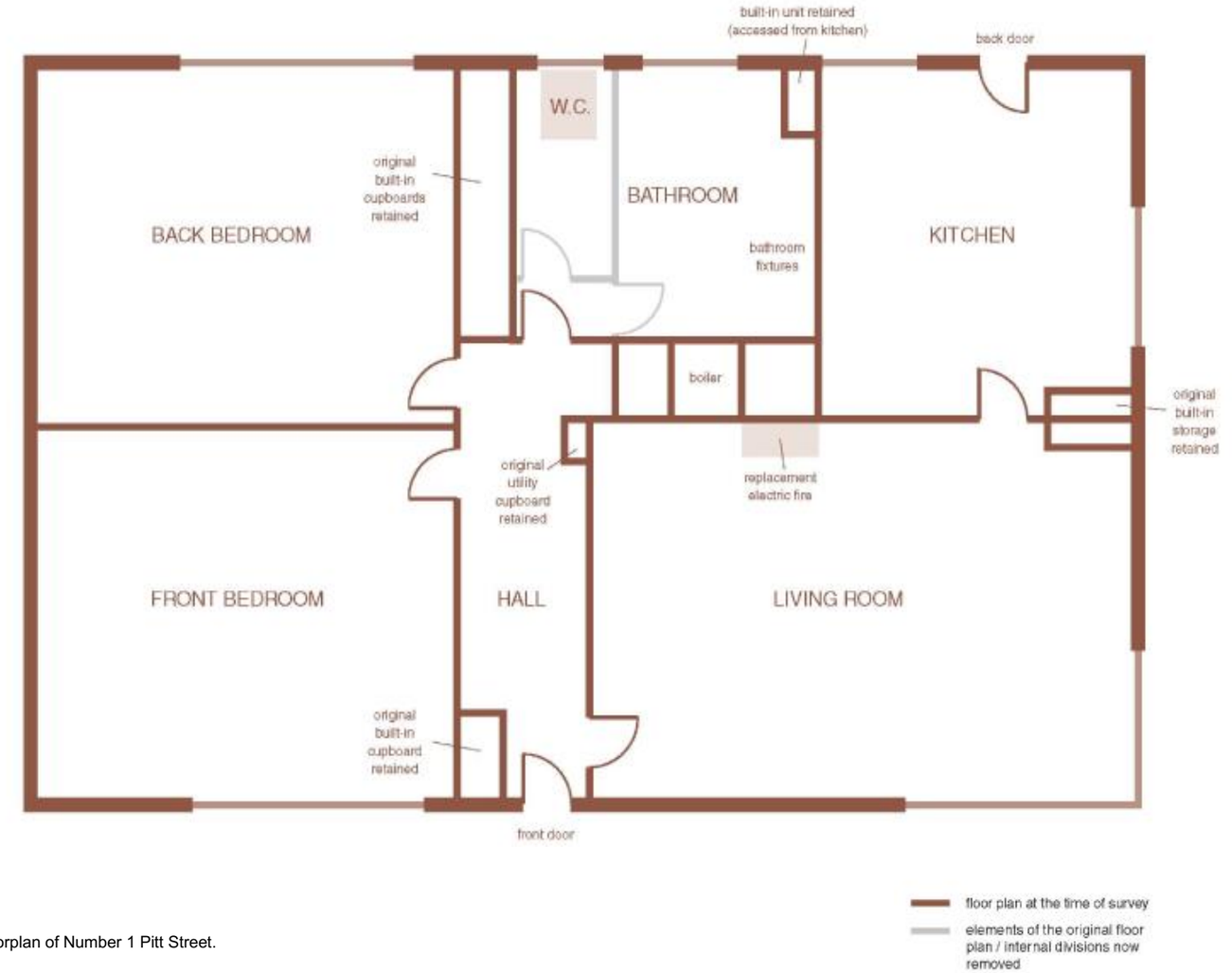

Figure 5: Floorplan of Number 1 Pitt Street.

Photo 23: West end of the living room of 1 Pitt Street. Retained built-in unit in the left hand side of the frame.

Photo 24: East elevation of the kitchen of 1 Pitt Street demonstrating retained element of original built-in units.

Photo 25: Southern end of the hallway of 1 Pitt Street with layout alterations resulting from conversion of the bathroom and W.C.

Photo 26: West elevation of the back bedroom of 1 Pitt Street with built-in cupboards retained.

Photo 27: Block in former heating ventilation / flue between the back bedroom and hallway of 1 Pitt Street.

Photo 28: North elevation of 1 Pitt Street as seen from Pitt Street.

Number 1 Pipeyard Lane

Number 1 Pipeyard Lane was located on the eastern side of the Eckington Estate, facing onto Pipeyard Lane which formed the eastern boundary of the estate (Figure 4)

As with the updates seen throughout the estate, all windows and doors had been replaced with UPVC units.

The general layout and the internal features remained largely unaltered, with key adaptations / alterations being:

- Insertion of hot water radiators;
- Conversion of the W.C. and bathroom into one room, and the insertion of later bathroom units;
- Removal and/or blocking in of original built-in units in the kitchen and living room; and
- Renovation of the kitchen.

Such changes are considered to relate to the upgrading of the energy efficiency of the bungalow and heating systems, replacement of outdated fixtures (i.e. in the bathroom and kitchen) alongside adaptions require to meet the needs of residence in the latter phase of its use.

Although the hot water radiators has been inserted, a coal fire was retained in the living room, though to be 1950s / 1960s in date.

Hallway

The hallway remained largely as constructed. The only alterations involved the reconfiguration of the western end resulting from changes to the layout of the bathroom / W.C.

Living Room

The living room retained the original layout and dimensions, however the built-in cupboard adjacent to the opening to the kitchen had been removed.

A ‘fireplace’ and fire was retained on the west elevation, in the same location of the original fireplace. The fire unit recorded appeared to date to the late 1950s / early 1960s based on the style and materials used.

Kitchen

The kitchen had been extensively renovated and no remnants of the original built-in kitchen was identified. All units were later replacements and all earlier units had been removed. Alcoves formerly located on the south elevation associated with the original kitchen design had been boarded over.

Front Bedroom

The front bedroom remained largely unaltered. All original built-in units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been converted into one room. Access to the combined bathroom as via an opening inline with the location of the original opening to the W.C.; however, the opening had been brought further into the hallway to enlarge the size of the room and allow for access to both elements. Evidence of the location of the former dividing wall could be seen to the right of the toilet.

All fixtures and fittings in the bathroom / W.C. were later additions.

Other Features of Note

Although a coal fire was retained within the living room, it would appear that the remainder of the heating system had been updated. Former ventilation openings associated within the heating ducts had been plastered over and evidence of the radiator fittings were noted throughout the property.

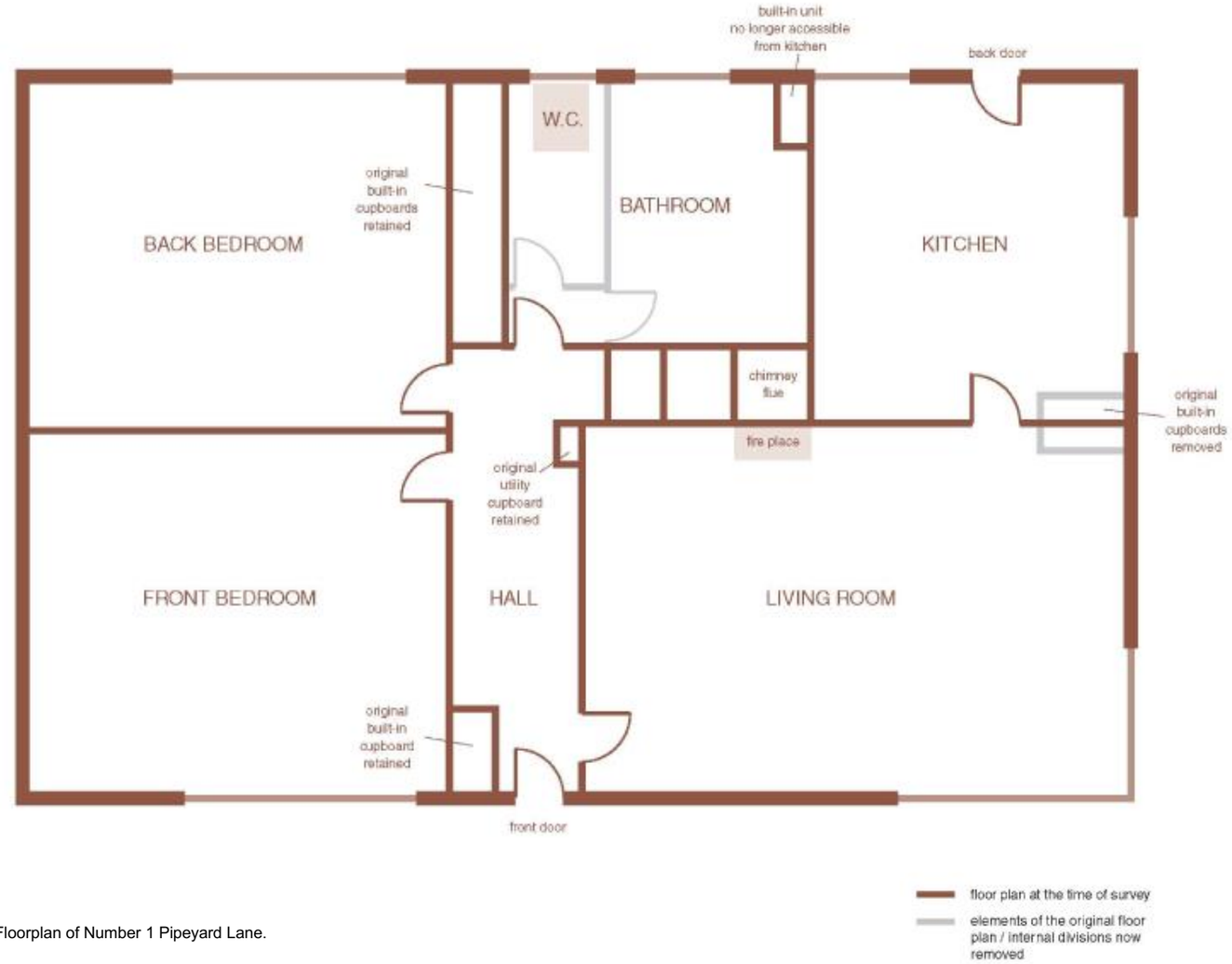

Figure 6: Floorplan of Number 1 Pipeyard Lane.

Photo 29: North elevation of the kitchen of 1 Pipeyard Lane with later addition kitchen units.

Photo 30: West elevation of the living room of 1 Pipeyard Lane, note that the built-in unit has been removed.

Photo 31: Southern elevation of the living room of 1 Pipeyard Lane with 1950s / 1960s coal fire.

Photo 32: West elevation of the back bedroom of 1 Pipeyard Lane with original built-in cupboards retained.

Photo 33: South elevation of the converted bathroom / W.C at 1 Pipeyard Lane. The former remnant of the former dividing wall right of the W.C.

Photo 34: North exterior elevation of 1 Pipeyard Lane.

Number 1 West Street

Number 1 West Street was located within the isolated group of four bungalows to the north of the main estate, facing south onto West Street.

As with the updates seen throughout the estate, all windows and doors had been replaced with UPVC units.

The general layout and the internal features remained largely unaltered, with key adaptations / alterations being:

- Insertion of hot water radiators and electric fireplace;
- Conversion of the W.C. and bathroom into one room, and insertion of later bathroom units;
- Removal and/or blocking in of original built-in units in the kitchen; and
- Renovation of the kitchen.

Such changes are considered to relate to the upgrading of the energy efficiency of the bungalow and heating systems, replacement of outdated fixtures (i.e. in the bathroom and kitchen) alongside adaptions require to meet the needs of residence in the latter phase of its use.

Hallway

The hallway remained largely as constructed. The only alterations involved the reconfiguration of the southern end resulting from changes to the layout of the bathroom / W.C., and the airing cupboard and boiler unit.

Living Room

The living room retained the original layout, dimensions and built-in cupboard adjacent to the opening to the kitchen. The only substantive alteration to the living room was the removal of the original coal fireplace, which had been replaced with an electric fire and fireplace surround. The electric fireplace unit had been removed from the wall and it was possible to see that the former openings to the chimney flue had been plastered over, with only an opening the size of a standard brick retained; presumably associated with ventilation for the electric fire.

Kitchen

The kitchen had been extensively renovated and the majority of units replaced during the latter part of the 20th century. The only original feature retained within the kitchen was the built-in unit adjacent to the door to the living room. All other original features had been removed and the west elevation had been re-plastered to cover the former built-in cupboard voids. The layout and location of the newer kitchen units did not reflect the layout of the original kitchen design.

Front Bedroom

The front bedroom remained largely unaltered. All original built-in units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been converted into one room, as was common place across the estate. Access to the combined bathroom was via an opening inline with the location of the original opening to the W.C., however the opening had been brought further into the hallway to enlarge the size of the room and allow for access to both elements. No evidence of the former dividing partition were identified.

All fixtures and fittings in the bathroom / W.C. were later insertions; however the original built-in cupboard formerly located within the hall had been brought into the bathroom as a result of the reposition of the wall / access. This feature remained.

Other Features of Note

The heating system in had been updated, including the aforementioned electric fire in the living room and hot water radiators in the remainder of the rooms. Former ventilation openings associated within the heating ducts had been plastered over.

Former ventilation openings associated within the heating ducts had been plastered over and evidence of the radiator fittings were noted throughout the property.

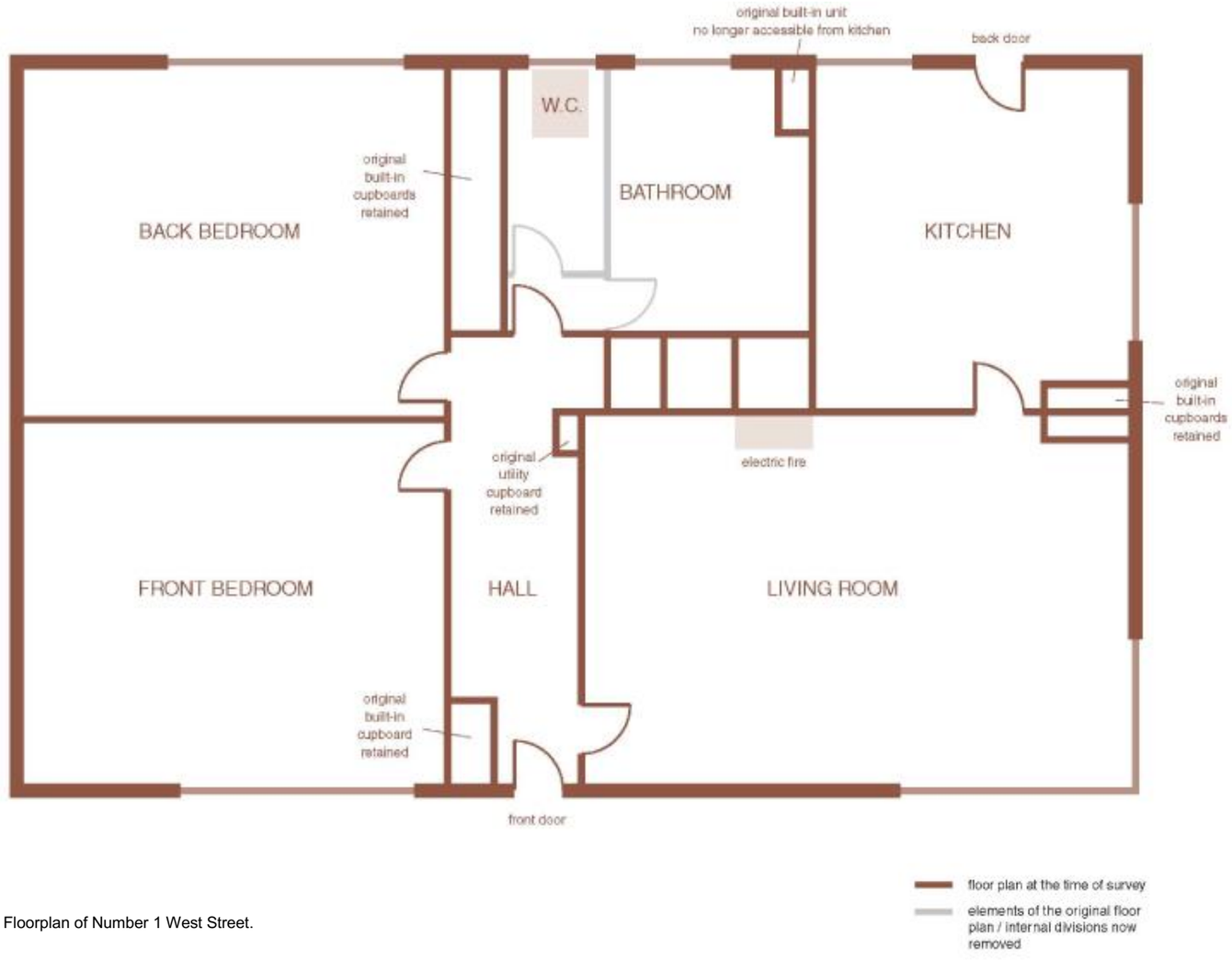

Figure 7: Floorplan of Number 1 West Street.

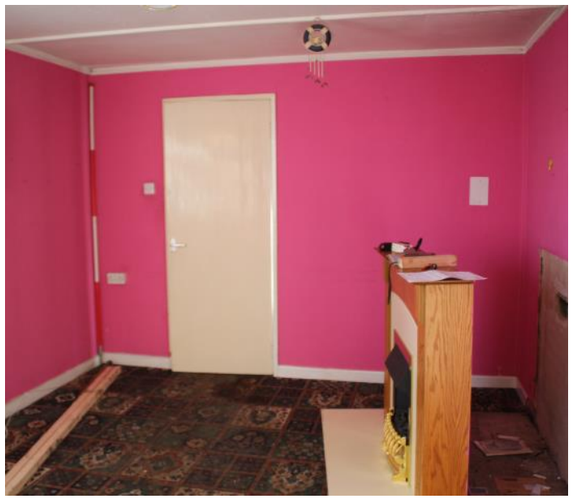

Photo 35: West elevation of the living room of 1 West Street. Note the replacement electric fireplace.

Photo 36: Retained built-in cupboards on the south elevation of the kitchen of 1 West Street.

Photo 37: Northern end of the kitchen of 1 West Street with replacement kitchen units.

Photo 38: View of the ‘boiler void’ behind the north elevation of living room of 1 West Street. Evidence of original flue retained.

Photo 39: East elevation of the back bedroom of 1 West Street with original built-in cupboards retained.

Photo 40: South exterior elevation of 1 West Street facing out onto the High Street.

Number 13 Pitt Street

13 Pitt Street was located within the small cul-de-sac located at the southern end of the Eckington estate. The front (west) elevation of the property faced out onto an area of open green space which formed the central point of the cul-de-sac at the end of the main route way through the estate. (Figure 4)

As with the updates seen throughout the estate, all the windows and doors of had been replaced with modern UPVC units.

The general layout of and the internal features remained largely unaltered, with key adaptations / alterations being:

- Insertion of hot water radiators;
- Conversion of the W.C. and bathroom into one room, and insertion of modern bathroom units; and
- Renovation of the kitchen.

Such changes are considered to relate to the upgrading of the energy efficiency of the bungalow and heating systems, replacement of outdated fixtures (i.e. in the bathroom and kitchen) alongside adaptions require to meet the needs of residence in the latter phase of its use.

Although the hot water radiators has been inserted, a coal fire was retained in the living room.

Hallway

The hallway of remained largely as constructed. The only alterations involved the reconfiguration of the southern end resulting from changes to the layout of the bathroom / W.C., and the airing cupboard and boiler unit.

Living Room

The living room retained the original layout and dimensions, alongside the built-in unit adjacent to the opening to the kitchen. The built-in unit had however been altered to create more of a 'display unit', with the cupboard doors being replaced with glass insets.

There was a coal fire on the east elevation of the living room, however the unit was a later replacement of the original; as was the surround. Evidence of radiator fittings within the remainder of the property indicated that the heating system had largely been updated during the later part of the 20th century.

Kitchen

The kitchen had been extensively renovated and the majority of units replaced during the latter part of the 20th century. The only original feature retained within the kitchen was the built-in unit to adjacent to the door to the living room. All further original features had been removed, and the east elevation had been re-plastered to cover the former built-in cupboard voids. The layout and location of the later kitchen units did to some degree reflect the layout of the original kitchen design.

Front Bedroom

The front bedroom remained largely unaltered. All original built in-units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been converted into one room. Access to the combined bathroom was via an opening inline with the location of the original opening to the W.C., however the opening had been brought further into the hallway to enlarge the size of the room and allow for access to both elements. No evidence of the former dividing partition were identified.

All fixtures and fittings in the bathroom / W.C. were later additions.

The original built-in cupboard formerly located within the hall had been brought into the bathroom as a result of the reposition of the wall / access.

Other Features of Note

The heating system had been updated, including the aforementioned replacement coal fire unit in the living room and hot water radiators in the remainder of the rooms. Former ventilation openings associated the property.within the heating ducts had been plastered over.

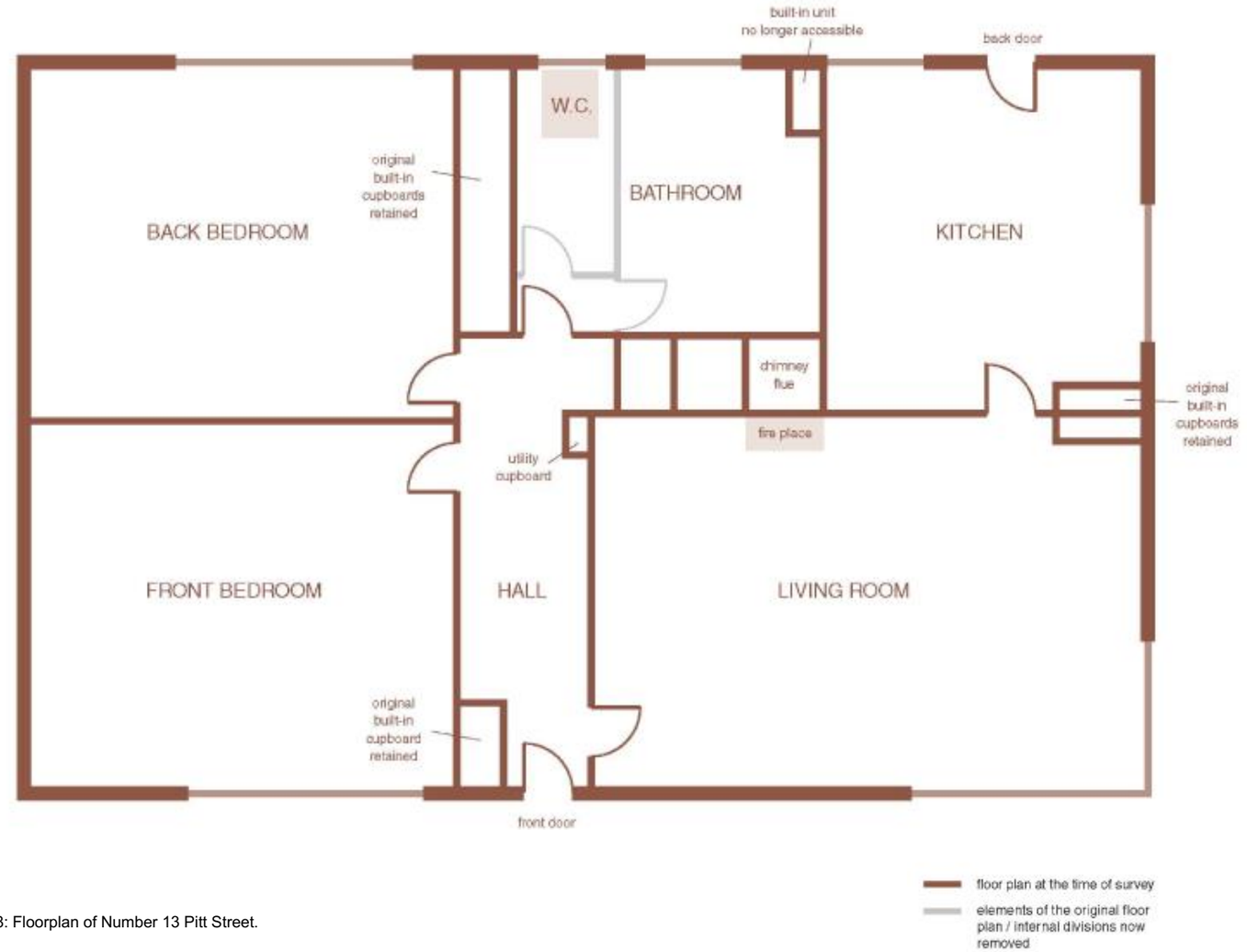

Figure 8: Floorplan of Number 13 Pitt Street.

Photo 41: Adapted built-in unit in the northeast corner of the living room of 13 Pitt Street.

Photo 42: Coal fire (not original) on the north elevation of the living room of 13 Pitt Street.

Photo 43: Later kitchen units on the west elevation of the kitchen of 13 Pitt Street. All original units have been removed.

Photo 44: North elevation of the converted W.C / bathroom of 13 Pitt Street.

Photo 45: South exterior elevation of 13 Pitt Street.

Photo 46: Prefabricated coal shed to the rear of 13 Pitt Street. Northeast from the back door.

Number 38 Pitt Street

Number 38 Pitt Street was located on the main central road of the Eckington Estate, onto which the front (east) elevation of the property faced (Figure 4).

As with the updates seen throughout the estate, all the windows and doors had been replaced with UPVC units.

The general layout of 38 Pitt Street and the internal features remained largely unaltered. Unlike the majority of structures on the estate, 38 Pitt Street retained a large number of internal fixtures including elements of the original kitchen units and built-in bath unit. In addition, unlike the majority of most of the properties, 38 Pitt Street retained an separate W.C. and bathroom.

Although hot water radiators had been inserted, a coal fire was retained in the living room.

Such changes are considered to relate to the upgrading of the energy efficiency of the bungalow and heating systems, replacement of outdated fixtures (i.e. in the bathroom and kitchen) alongside adaptions require to meet the needs of residence in the latter phase of its use.

Hallway

The hallway remained as originally constructed. Unlike many of the properties on the Eckington estate, the W.C. and bathroom had not been converted into a single room (see below), and as such the hallway retained access to the built-in cupboard at the western end, as was the original design intension.

Living Room

The living room of 38 Pitt Street retained the original layout and dimensions, alongside the built-in unit adjacent to the opening to the kitchen.

There was a coal fire on the west elevation of the living room; however, the unit was a later replacement of the original; as was the surround. Stylistically both features would appear to date from the late 1950s / early 1960s. Evidence of radiators fittings within the remainder of the property indicated that the heating system had largely been updated during the later part of the 20th century.

Kitchen

The kitchen retained a large proportion of the original built-in kitchen features, including: the built-in cupboard adjacent to the opening to the living room; the built-in cupboard in the southwest corner; recesses on the west elevation; evidence of original counter units; and the sink taps appear to be in the same location and similar in design to the original fit out.

Front Bedroom

The front bedroom remained largely unaltered. All original built in-units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built -in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been retained as two separate rooms.

The W.C. reflected the original delineations of the design, however all fittings within the room were later additions.

As with the W.C., the bathroom reflected the original dimensions of the design, but also retained elements of the original fixtures and fittings. The original bath against the north elevation had been removed, however the sink and associated unit were likely to be original fittings.

Other Features of Note

The heating system had been updated, including the aforementioned replacement coal fire unit in the living room and hot water radiators in the remainder of the rooms. Former ventilation openings associated the heating ducts had been plastered over.within the heating ducts had been plastered over.

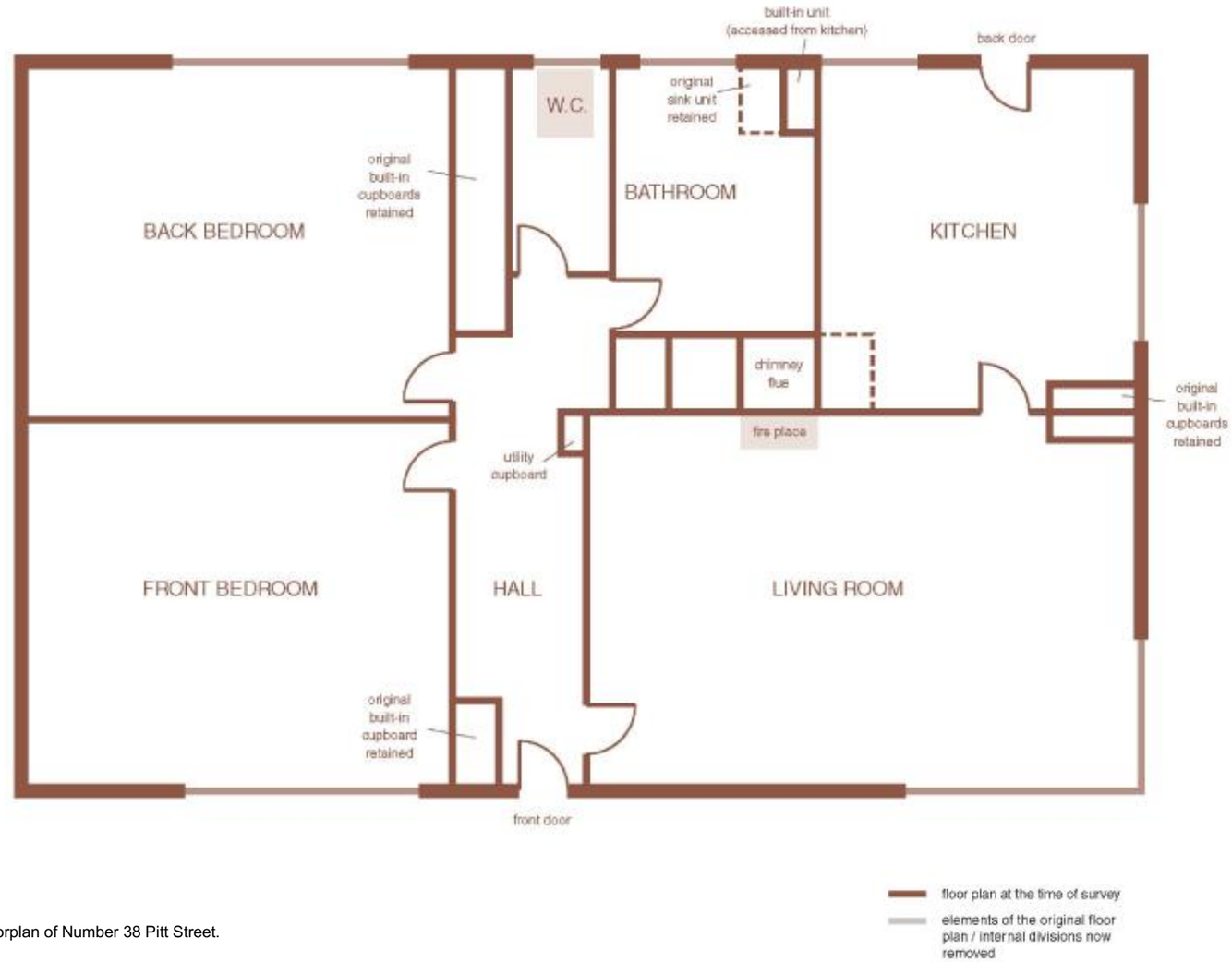

Figure 9: Floorplan of Number 38 Pitt Street.

Photo 47: Detail of original built-in units retained in the kitchen of 38 Pitt Street.

Photo 48: Detail of original built-in units retained in the kitchen of 38 Pitt Street.

Photo 49: Overview of the original built-in units retained on the south elevation of the kitchen of 38 Pitt Street.

Photo 50: The south elevation of the back bedroom of 38 Pitt Street. Note the vertical lines of the concrete panels seen through the wallpaper.

Photo 51: Evidence of the original sink fittings in the southwest corner of the bathroom of 38 Pitt Street.

Photo 52: South (rear) elevation of 38 Pitt Street.

The Killamarsh Estate

The Killamarsh Estate

The estate of 50 Tarran Mark IV bungalows was constructed in 1945/6 on a former area of open ground to the south of Sheffield Road.

At the time of construction the boundaries of the site had already been well established. The oldest boundaries on the site, to the rear of Peacock Close and parallel to Quarry Road, were old hedge boundaries created as part of Nether House which was once located in the south east corner of the estate site. Quarry Road was the original driveway for Nether House, and the land on which the estate as constructed was likely to have been related parkland. The area remained as open space with boundaries off Sheffield Road and Bridge Street gradually creeping inwards with the development of housing and other structures of the late 19th and early 20th centuries.

The site was allocated for the provision of temporary housing by Chesterfield Rural District Council in April 1945. The allocation of temporary housing by the Government is likely to be as a result of bomb damage sustained at nearby settlements such as Chesterfield and Sheffield, as well as potentially being part of slum clearance in the larger settlements.

The bungalows were built in one phase of construction focused around a central L-shaped route way, adjoining a main driveway leading between the old cinema and housing from Sheffield Road. The layout of the estate had been carefully designed to create a sense of an individual community, as well as providing elements of open green space.

The main road through the estate was flanked by two areas of grassland. It would have been possible to fit further bungalow plots in these areas however it is likely that this was a designed element of the estate.

Arranged around the main route through the estate were a number of small cul-de-sacs and building plots each reached by pedestrian access. None of the properties had direct access to the main road as seen at the Eckington estate, and therefore all front gardens remain in recreational use and were not converted for the provision of car parking. The size of the vehicle access throughout the estate was reflective of an estate planned prior to the wide domestic use of the motorcar.

Photo 53: Extract from the authorisation document for the allocation of land at the Killarmarsh estate, April 1945 (TNA HLG/23/22244))

The plan of the estate at Killamarsh is more aesthetically appealing than that at Eckington, in particular with relation to the large area of open space to the interior. It is not known if different planners were used for each estate, or if simply the allocation of land for open space was due to a decrease in density at this site when compared to Eckington.

In 2013 fourteen garages were recorded on the estate varying date, style and materials. Between Numbers 1 and 12 there were five garages which were a clear representation of the varying styles on the estate. The oldest of the structures was constructed of a concrete frame with corrugated steel sheeting and an asbestos roof. A slight element of decoration has been added in the form a wooden finial at the apex of the front elevation. The adjacent modern structures were constructed on concrete and featured no form of decoration.

At the south end of the estate were two metal electricity boxes (located near Numbers 26 and 42), were identified, both are believed to date from the 1950s. Near Number 35 was an old telephone switch unit, constructed of brick with a concrete slab roof and wooden door.

In addition to the main entrance to the Killamarsh estate, off Sheffield Road, there were a few pedestrian only access routes to the estate. It is thought that the access from Peacock Close and Quarry Road (to the rear of Number 45) were later insertions, with the pathway adjacent to Number 20 into Bridge Street being contemporary with the original construction. Two further openings were located at the south of the estate between Numbers 30 and 31, and 38 and 39. By 2013 these openings were blocked in a the time of survey; however, remains of the original reinforced concrete and wire fencing that would have marked the southern boundary of the estate had survived.

The Killamarsh Bungalows

The Tarran Mark IV bungalows at the time of construction would have matched the description as set out in the previous section of this report.

As with the Eckington estate, at the time of survey in 2013 a number of external alterations were recorded, the majority of which were related to the updating and modification of the bungalows during the latter part of the 20th century. Such alterations included in the insertion of UPVC double glazed units to all window and door openings; the insertion of a plastic porch above the front door and the replacement of the asbestos roof tiles with concrete tiles. Due to the recurring design of these features it is assumed that such modifications were all made at the same date. A number of the bungalows (Numbers 39, 18 and 29) were noted as having small extensions to the rear, whilst the windows on the front elevation of Number 16 are subtly different with ‘slight bay windows’

Each bungalow is situated within its own plot of land, with a front and back garden. The front gardens are accessed from a pedestrian route off the main road, and also feature a small alleyway down the side of each bungalow to the back garden. A number of front entranceways have been adapted with concrete ramps to provide easier access for residents with impaired mobility.

The plot boundaries marked by hedging or fencing, with the plot size dependent on the location of the bungalow within the estate. In some cases the bungalows run back to back with a simple boundary fence separating the two. Each back garden features a prefabricated concrete coal shed, located in proximity to the back door and within easy access to the alleyway leading to the front of the bungalow.

Prior to demolition the majority of the bungalows remained unaltered and therefore retained the identical and uniform nature of their original construction.

As with the discussion of the Eckington estate, the following section provides a written description of the internal components of the individual bungalows surveyed on the Killamarsh estate. The aim is not provide a repetition of the intended form of the structure, but instead to explore and articulate changes that may have made to the internal elements. The bungalows discussed were chosen in order to present a representative example of the structures on the estate.

For each bungalow an executive summary is provided (in the grey box).

Figure 10: Site Plan of the Killamarsh Bungalows.

Photo 54: Central area of open space in the Killamarsh estate.

Photo 55: Cul-de-sac of Numbers 7-14 in the east of the estate.

Photo 56: Cul-de-sac of Numbers 7-14 in the east of the estate.

Photo 57: Number 12 at the end of the cul-de-sac of Numbers 7-17.

Photo 58: Number 34 facing out onto the cul-de-sac of Numbers .

Photo 59: Number 16 with addition of bay windows on the front elevation.

Photo 60: Number 1 with unpainted concrete panels.

Photo 61: Example of a prefabricated coal shed of the Killamarsh estate.

Photo 62: Row of six garages on the Killamarsh estate differing in date and style.

Number 6, The Bungalows

Number 6 was located at the southern end of central open space of the Killamarsh estate (Figure 10). The front garden of property was located adjacent to the area of open space, with the back garden abutting the rear garden of Number 7.

The external elevations of Number 6 had been painted a cream colour, and the original wooden bargeboarding on the north and south gables replaced with plastic boarding.

As with the updates seen throughout the estate, all windows and doors had been replaced with UPVC units.

The general layout and the internal features remained largely unaltered, with key adaptations / alterations being the substantial renovation of the kitchen, including the relocation of the doorway between the kitchen and the living room. Despite the changes in the kitchen, the W.C. and bathroom was retained as two separate rooms, alongside the retention of a coal fireplace the living room.

Hallway

The hallway remained as constructed. Unlike many of the properties on the Killamarsh estate, the W.C. and bathroom had not been converted into a single room (see below), and as such the hallway retained access to the built-in cupboard at the western end, as intended as part of the original design.

Living Room

The living room had a undergone a number of alterations, in particular the removal of the built-in unit in the southeast corner and the relocation of the opening between the living room and the kitchen. This opening had been moved to the former location of the built-in cupboard, with the former opening blocked in; presumably to provide more space for kitchen units (see below).

A tiled ‘fireplace’ and fire was retained on the west elevation, in the same location of the original fireplace. The unit recorded appeared to date to the late 1950s / early 1960s based on the style and materials used. The unit was similar to that noted in Number 1 Pipeyard Lane on the Eckington estate.

Non-original decorative details noted within the living room included the artex ceiling and the insertion of a moulded cornice and skirting board.

Kitchen

The kitchen had been extensively renovated. All original units, both built-in and freestanding, had been removed and replaced by later additions. The north elevation of the had been re-plastered to cover the former built-in cupboard voids, and the north, east and west elevations tiled. The layout and location of the new kitchen units did not reflect the layout of the original kitchen design of the properties.

As previously discussed the location of the opening providing access from the living room had been relocated to the position of the former built-in unit.

Front Bedroom

The front bedroom remained largely unaltered. All original built in-units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been retained as two separate rooms.

The W.C. reflected the original delineations of the design, however all fittings within the room were later additions.

As with the W.C., the bathroom reflected the original dimensions of the design, however all fittings were later additions.

Other Features of Note

Due to the change in the heating system, former ventilation openings associated within the heating ducts had been plastered over. Evidence of the radiator fittings were noted throughout the property.

All internal doors had been replaced with later versions.

The prefabricated concrete coal bunker was retained to the east of the back door.

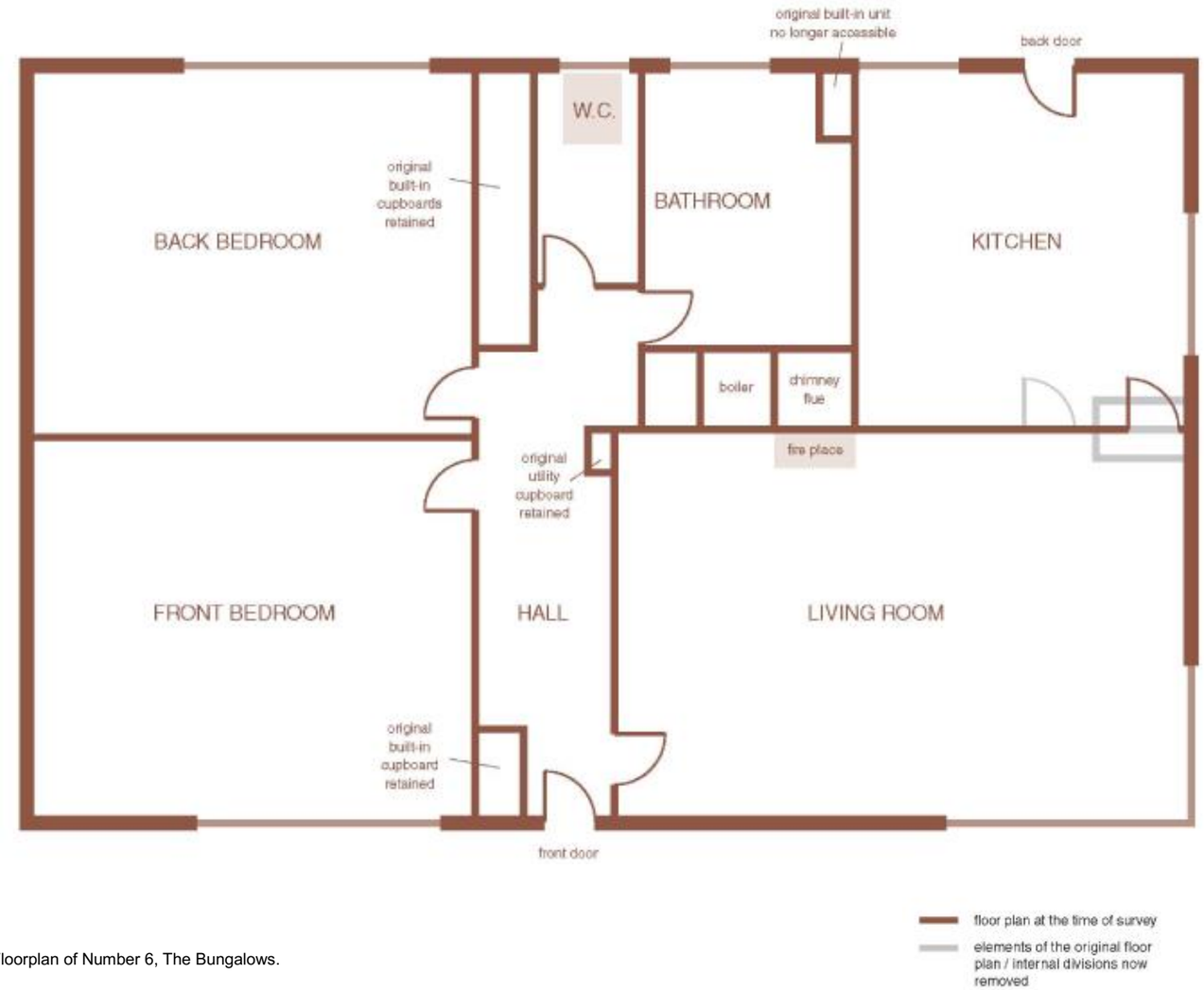

Figure 11: Floorplan of Number 6, The Bungalows.

Photo 63:West elevation of the kitchen of Number 6 demonstrating the substantial renovation works.

Photo 64: East elevation of the living room of Number 6. Note the removal of the built-in unit and relocationof the door.

Photo 65: Coal fire retained on the east elevation of Number 6.

Photo 66: View east along the hallway of Number 6.

Photo 67: South elevation of the back bedroom of Number 6 with built-in cupboards retained.

Photo 68: East, rear, exterior elevation of Number 6.

Number 35, The Bungalows

Number 6 was located at the southern end of central open space of the Killamarsh estate (Figure 10). The front garden of property was located adjacent to the area of open space, with the back garden abutting the rear garden of Number 7.

The external elevations of Number 6 had been painted a cream colour, and the original wooden bargeboarding on the north and south gables replaced with plastic boarding. Number 35 was located at the north entrance to the pedestrian access only cul-de-sac in the southwest corner of the Killamarsh estate (Figure 10). The front garden of property was located adjacent to pathway between properties 35-42, with the back garden abutting the rear garden of Number 34. At the time of survey, the entirety of the cul-de-sac containing properties 35-42 remained.

Number 35 was the only property on the Killamarsh estate to have been privately purchased. This resulted in the property having undergone more alterations than the Housing Association owned properties, whilst to a degree still retaining a larger proportion of original features and fittings. Internally the W.C. and bathroom was retained as two separate rooms, and all built-in units had been retained. The heating system and fireplace in the living room had however been updated.

Unlike the other properties on the estate, the external elevations of Number 35 had not been painted, with the pebble-dashed concrete panels left exposed. As with the updates seen throughout the estate all windows and doors had been replaced with UPVC units (except on the modern rear extensions; however the original asbestos concrete had been retained, as had the wooden bargeboarding on the north and south gables

Number 35 featured two extensions; one on the west (front) elevation and one on the east (rear) elevation. The front extension was a doubled glazed porch unit, approximately 1m deep, encasing the front entrance to the property. The rear extension comprised a concrete block porch extensions encasing the rear entrance, featuring a wooden ‘stable door’ into the back garden.

Hallway

The hallway remained as originally constructed. Unlike many of the properties on the Killamarsh estate, the W.C. and bathroom had not been converted into a single room (see below), and as such the hallway retained access to the built-in cupboard at the western end, as intended as part of the original design. Number 35 also retained an enclosed airing cupboard adjacent to the boiler room. Doors to all built-in units had been refurbished.

Living Room

The living room retained the original layout and dimensions, alongside the built-in unit adjacent to the opening to the kitchen. The unit was however blocked and not being utilised for storage.

A tiled ‘fireplace’ and fire was retained on the west elevation, in the same location of the original fireplace. The unit appeared to date to the late 1950s / early 1960s based on the style and materials used. The unit was similar to that noted in Numbers 6 and 42, and 1 Pipeyard Lane on the Eckington estate. Based on a previous visit to the property by the author, this unit had been encased and fronted with an electric heater / fireplace in the most recent years of occupation (removed by the time of survey).

Non-original decorative details noted within the living room included addition of a dado rail on the north and west elevations.

Kitchen

The kitchen had been extensively renovated and units replaced during the latter part of the 20th century. A number of features associated with original design could however been identified amongst the renovations, including the built-in cupboard in the northeast corner (doors replaced) and the recesses on the north elevation. The sink taps also appeared to be in the same location, although recent replacements of the originals.

The built in-unit adjacent to the opening to the living room had been removed from countertop height upwards, with the lower element retained beneath the newer units.

Front Bedroom

The front bedroom remained largely unaltered. All original built-in units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been retained as two separate rooms.

The W.C. reflected the original dimensions of the design, however all fittings within the room were later additions.

As with the W.C., the bathroom reflected the dimensions of the original design. Within the exception of the sink unit, the remainder of the units within the bathrooms where considered to be modified versions of the originals, including the bath, tap fittings and built-in shelves on west elevation.

Other Features of Note

Due to the change in the heating system, former ventilation openings associated within the heating ducts had been plastered over. Evidence of the radiator fittings were noted throughout the property.

The prefabricated concrete coal bunker was retained to the west of the back door.

Figure 12: Floorplan of Number 35, The Bungalows.

Photo 69: North elevation of the kitchen of Number 35, with mock brick wall covering.

Photo 70: Coal fire retained on the east elevation of Number 35. Latterly ‘hidden’ behind a replacement electric fire.

Photo 71: Elements of the original sink and bath units in the bathroom of Number 35.

Photo 72: Elements of the original bath and built-in shelf units and heating vents in the bathroom of Number 35.

Photo 73: Later extension on the west, front, exterior elevation of Number 35.

Photo 74: Later extension on the east, rear, elevation of Number 35.

Number 36, The Bungalows

Number 36 was located on the pedestrian access only cul-de-sac in the southwest corner of the Killamarsh estate (Figure 10). The front garden of property was located adjacent to pathway between properties 35-42, with the back garden abutting the rear garden of Number 33. .

The external elevations had been painted a cream colour, and the original wooden bargeboarding on the north and south gables replaced with plastic boarding.

As with the updates seen throughout the estate, all windows and doors of Number 36 had been replaced with modern UPVC units.

The general layout and the internal features remained largely unaltered, with key adaptations / alterations being:

- Insertion of hot water radiators;
- Conversion of the W.C. and bathroom into one room, and insertion of modern bathroom units; and
- Renovation of the kitchen.

Such changes are considered to relate to the upgrading of the energy efficiency of the bungalow and heating systems, replacement of outdated fixtures (i.e. in the bathroom and kitchen) alongside adaptions require to meet the needs of residence in the latter phase of its use..

Hallway

The hallway remained largely as constructed. The only alterations involved the reconfiguration of the southern end resulting from changes to the layout of the bathroom / W.C., and the airing cupboard and boiler unit.

Living Room

The living room retained the original layout and dimensions, alongside the built-in unit adjacent to the opening to the kitchen. This opening had been altered slightly with the removal of the door and the insertion of arch moulding to create an open access between the living room and the kitchen.

The main alteration within the living room was the replacement of the original coal fired heating unit with an electric heater on the south elevation. Evidence of electric storage heaters within the remainder of the property indicated that the heating system had been updated during the later part of the 20th century.

Non-original decorative details noted within the living room included the artex ceiling and the insertion of a moulded cornice and skirting board.

Kitchen

The kitchen had been extensively renovated. All original units, both built-in and freestanding, had been removed and replaced by later units. The north elevation had been re-plastered to cover the former built-in cupboard voids, and the north, east and west elevations tiled. The layout and location of the modern kitchen units did not reflect the layout of the original kitchen design of the properties.

Front Bedroom

The front bedroom remained largely unaltered. All original built in-units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been converted into one room. Access to the combined bathroom was via an opening inline with the location of the original opening to the W.C., however the opening had been brought further into the hallway to enlarge the size of the room and allow for access to both elements. This is turn resulted in the built-in cupboard formerly located within the hallway being accessed from the bathroom.

All fixtures and fittings in the bathroom / W.C. were later additions.

Other Features of Note

Due to the change in the heating system, former ventilation openings associated within the heating ducts had been plastered over. Evidence of the radiator fittings were noted throughout the property.

The prefabricated concrete coal bunker was retained to the east of the back door.

Figure 11: Floorplan of Number 36, The Bungalows.

Photo 75: East elevation of the living room of Number 36.

Photo 76: Detail of ceiling and ‘arch’ mouldings in the living room of Number 36.

Photo 77: East end of the kitchen of Number 36 with later kitchen units.

Photo 78: North elevation of the front bedroom of Number 36. Note vertical shading of the concrete panels through the wallpaper.

Photo 79: South elevation of the back bedroom of Number 36 with retained built-in cupboards.

Photo 80: South exterior elevation of Number 36, demonstrating the corner window, typical of the Tarran Mark IV bungalow.

Number 42, The Bungalows

Number 42 was located at the entrance to the pedestrian access only cul-de-sac in the southwest corner of the Killamarsh estate (Figure 10). The front garden of property was located adjacent to pathway between properties 35-42, with the back garden extending as far as the western boundary of the estate. The external elevations of Number 42 had been painted a cream colour, and the original wooden bargeboarding on the north and south gables replaced with plastic boarding.

As with the updates seen throughout the estate, all windows and doors had been replaced with UPVC units.

The general layout and the internal features remained largely unaltered, with key adaptations / alterations being the substantial renovation of the kitchen. Despite the changes in the kitchen, the W.C. and bathroom was retained as two separate rooms, and evidence of the original built-in bath unit and shelving was noted. Although the heating system had been largely updated, a coal fire was retained in the living room, alongside the retention of a coal fireplace the living room in the same room..

Hallway

The hallway remained as constructed. Unlike many of the properties on the Killamarsh estate, the W.C. and bathroom had not been converted into a single room (see below), and as such the hallway retained access to the built-in cupboard at the western end, as intended as part of the original design.

Living Room

The living room retained the original layout and dimensions, alongside the built-in unit adjacent to the opening to the kitchen.

A tiled ‘fireplace’ and fire was retained on the west elevation, in the same location of the original fireplace. The unit appeared to date to the late 1950s / early 1960s based on the style and materials used. The unit was similar to that noted in Number 6 and Number 1 Pipeyard Lane on the Eckington estate.

Kitchen

The kitchen of Number 42 had been largely renovated and units replaced during the latter part of the 20th century. The south elevation had been re-plastered to cover the former built-in cupboard voids, and partially tiled. The layout and location of the later kitchen units did not reflect the layout of the original kitchen design of the properties.

The built-in unit adjacent to the opening to the living room was retained; however had been substantially altered.

Front Bedroom

The front bedroom remained largely unaltered. All original built-in units were retained along the east elevation, with only slight alterations made to the doors.

Back Bedroom

The back bedroom remained largely unaltered. All original built-in cupboards were retained along the east elevation, with only slight alterations made to the doors.

Bathroom / W.C

The bathroom and W.C. had been retained as two separate rooms.

The W.C. reflected the original dimension ns of the design, however all fittings within the room were later additions.

As with the W.C., the bathroom reflected the original dimensions of the design, however all fittings were later insertions. A feature of particular note was that the bath was located in the same position as the original, with elements of built-in shelving retained on the east elevation.

Other Features of Note

Due to the change in the heating system, former ventilation openings associated within the heating ducts had been plastered over. Evidence of the radiator fittings were noted throughout the property.

The prefabricated concrete coal bunker was retained to the west of the back door.

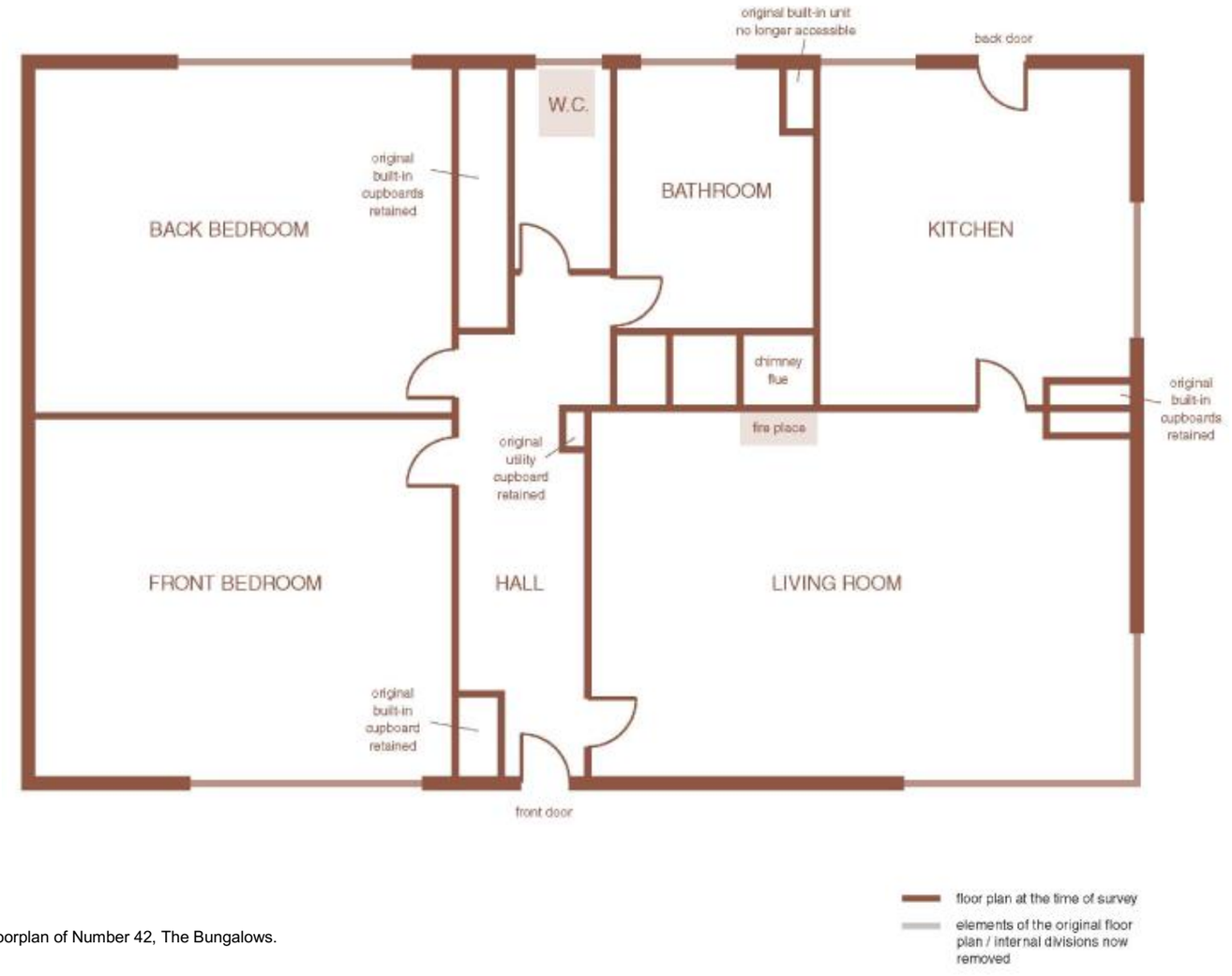

Figure 11: Floorplan of Number 42, The Bungalows.

Photo 81: West elevation of the living room of Number 42 with coal fire retained.

Photo 82: Detail of the built-in unit on the west elevation of the living room of Number 42.

Photo 83: East elevation of the kitchen of Number 42 with adapted built -in unit.

Photo 84: East elevation of the front bedroom of Number 42. Note built-in cupboard retained on the north elevation.

Photo 85: Retained built-in shelving on the east elevation of the bathroom.

Photo 86: East, front, exterior elevation of Number 42.

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