

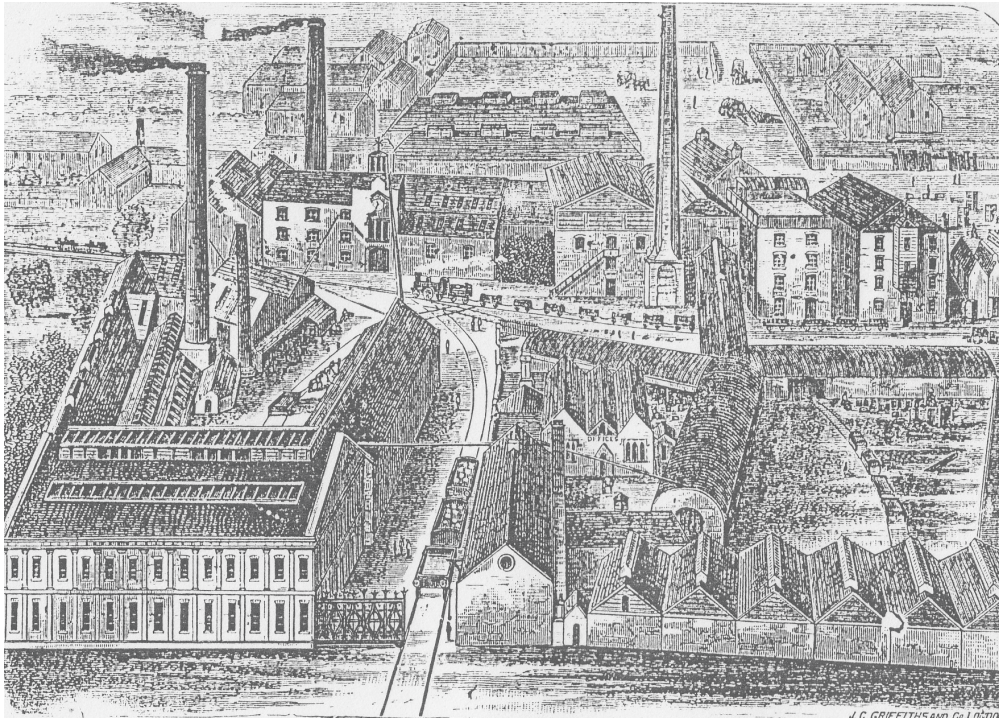
FORMER HILL & EVANS VINEGAR WORKS

St Martin's Gate, Lowesmoor, Worcester

(NGR SO 85300 55012)

Historic Building Record

(Planning Ref. **P09D0106**; Condition 10)



FINAL REPORT

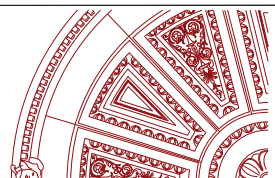
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NGR:	NGR SO 85300 55012		
Project Type:	Historic Building Record		
Project No.:	2015_009		
Planning Authority:	Worcester City Council		
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TABLE OF CONTENTS

Summary	1
1 INTRODUCTION	2
1.1 Planning Background	2
1.2 Requirement for Work	3
1.3 Scope of Report	3
2 AIMS AND OBJECTIVES	4
3 METHODOLOGY	4
3.1 Documentary Research	4
3.2 Historic Building Recording	4
4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	5
4.1 General Background	5
4.2 Map Regression	5
4.3 Other Graphic Sources	7
4.4 Hill, Evans and Company	7
4.5 The Lowesmoor Works	9
4.6 Worcester City HER	9
4.7 Historical Planning Applications	10
4.8 Previous Archaeological Work / Historical Research	11
5 SITE DESCRIPTION AND DEVELOPMENT	11
5.1 Overview	11
5.2 Building A; Granary	12

5.3	Building B; Acidifying Sheds	14
5.4	Building C; Filtering Shed	16
5.5	Building D; Stables.....	17
5.6	Building E; Infill Block	18
5.7	Modern Introductions.....	19
6	DISCUSSION AND CONCLUSION	19
7	ACKNOWLEDGEMENTS	20
8	SOURCES	21

List of Figures

- Figure 1: Location Plan.
Figure 2: Site Plan: modern aerial photograph (© Google Earth).
Figure 3: Early maps: (a) John Speed, 1610, and (b) John Doherty, 1741.
Figure 4: George Young's plan of 1779 (extract).
Figure 5: 1808 Map of Worcester City, J Roper (from a drawing by George Young).
Figure 6: Worcester Corporation Plan of 1824.
Figure 7: Early 19th century plans (pre-works): (a) Mainley, 1822; and (b) Dewhirst and Nichols, 1838.
Figure 8: Later 19th-century mapping: (a) Worcester Board of Health plan (1870), and (b) OS 1:500 edition town plan (1886).
Figure 9: Historical Ordnance Survey mapping (1); 1888 and 1904.
Figure 10: Historical Ordnance Survey mapping (2); 1928 and 1940.
Figure 11: Undated (post-1904), plan of works; annotated.
Figure 12: Historical images of Vinegar Works from north: (a) c.1860 and (b) post-1876.
Figure 13: Overall site plan and building identifications.
Figure 14: Building A, Granary; east and west elevations.
Figure 15: Building A, Granary; north and south elevations, transverse cross-section.
Figure 16: Building A, Granary; ground and first floor plans.
Figure 17: Building A, Granary; second and third floor plans.
Figure 18: Building B, Acidifying Sheds; ground plan and longitudinal cross-section.
Figure 19: Building B, Acidifying Sheds; transverse cross-section.
Figure 20: Building B, Acidifying Sheds; historical planning application 478, dated 28th October 1876.
Figure 21: Building C, Filtering Shed; north and south elevations.
Figure 22: Building C, Filtering Shed; plan, west elevation and cross-section.
Figure 23: Building C, Filtering Shed; historical planning application 3419, dated 18th June 1904.
Figure 24: Building D, Stables; ground plan, north and west elevations, and transverse cross-section.
Figure 25: Building D, Stables; historical planning application 967, dated 19th January 1885.

List of Plates

- Plate 1: Panoramic view of site from south with recorded building labelled. Fermentation Shed and New Filling Room to centre background.
Plate 2: Granary; general view from south-east.
Plate 3: Granary; general view from north-west.

- Plate 4: Granary; north elevation with superimposed blocked doorways to centre, formerly opening onto external lucam (see Figure 12b).
- Plate 5: Granary; south elevation with secondary fire-escape stair. Central windows blocked for insertion of interior lift.
- Plate 6: Typical primary window detail (**NB**: repaired cill).
- Plate 7: Blocked GF window and blue-brick plinth.
- Plate 9: Principal primary door at north end of east elevation.
- Plate 10: Blocked door at 3F level, east elevation formerly serving raised walkway to adjacent range.
- Plate 11: Areas of patching at bay intervals evidence insertion of secondary steel beams.
- Plate 12: Ground floor looking north.
- Plate 13: Detail of cross-section stanchion; **NB**: inserted blockwork walls beyond
- Plate 14: Head of stanchion with butt-jointed, timber longitudinal beam, strapped and bolted.
- Plate 15: Studwork enclosing stair, with primary door to exterior (left) at base of lucam.
- Plate 16: Inserted brickwork enclosing oil tank at north-west corner of ground floor.
- Plate 17: Stair rises at north-east angle (GF-1F).
- Plate 18: Stair rises at north-east angle (1F-2F).
- Plate 19: First floor level looking south-west.
- Plate 20: Second floor level looking north-east.
- Plate 21: 1F stanchion removed for introduction of transverse steel beam.
- Plate 22: Surviving primary stanchion (1F).
- Plate 23: Detail of cutting through of primary longitudinal beam for insertion of transverse steels.
- Plate 24: Plain 2-inch fillet skirting detail.
- Plate 25: Surviving chute with steel closing plate.
- Plate 26: 5-inch offset in north and east walls as walls narrow from 24in.-19in. at 2F level.
- Plate 27: Ceiling hatch at 2F level.
- Plate 28: Same floor hatch at 3F level.
- Plate 29: Third floor level looking north-west.
- Plate 30: Head of stair at 3F level.
- Plate 31: Remains of high-level wall-box for shafting at Bay 2 (E) of third floor level.
- Plate 32: Granary, king-bolt roof structure looking south above suspended ceiling.
- Plate 33: Acidifying sheds **B1** and **B2** (centre) seen from south (Filtering Shed to foreground).
- Plate 34: Acidifying Sheds, west elevation looking north-east **B1** (pre-1870) to left, **B2** (1876) to right, Fermenting Shed to background.
- Plate 35: Blind south elevation of **B2**.
- Plate 36: Shed **B1** looking west.
- Plate 37: Shed **B1** looking east.
- Plate 38: Full-height straight joint and blocked door in north wall of **B1** (Bay 4/5).
- Plate 39: Sequence of blocked doorway openings in north wall of **B1** (east end).
- Plate 40: Blocked door at NE angle of **B1**, abutted by east wall.
- Plate 41: Primary door at east end, south wall **B1**.
- Plate 42: Partially blocked doorway in western gable of **B1**, note stone hinge blocks and original chamfered jamb to right.
- Plate 43: Wide inserted door between **B1** and **B2**.
- Plate 44: Shed **B2** looking east.
- Plate 45: Queen-post roof structure over **B2** looking west.
- Plate 46: Inserted roller door to west end, **B2**.
- Plate 47: Primary door (partly blocked) and inserted store with raised platform (**B2**, SE angle).
- Plate 48: Filtering Shed **C**, looking north-east, **NB**: lack of blue-brick plinth to street elevation.
- Plate 49: Detail of chamfered blue-brick plinth.
- Plate 50: Detail of blue-brick dog-tooth eaves band.
- Plate 51: Filtering Shed, east elevation.
- Plate 52: Oblique view of north-west angle; **NB**: raised roller door entrances to Bays 7-10.
- Plate 53: Two-part cladding of northern roof-slope; upper section originally glazed (see Figure 23).

- Plate 54: Straight-joint in brickwork of raised doorheads indicating two-phase development.
Plate 55: North elevation, primary doorway at Bay 6.
Plate 56: Roof truss T6, compare granary (Plate 37); **NB**: renewed rafter to upper north slope (left), originally glazed.
Plate 57: Bays 1/2 looking west.
Plate 58: Detail of edge-laid, herring-bone blue-brick floor (Bays 1/2).
Plate 59: Bays 6/7 looking south-west.
Plate 60: Bays 9/10 looking south-east.
Plate 61: Stables **D**; south and west elevations, oblique view looking north-east.
Plate 62: North elevation (oblique).
Plate 63: North elevation; blocked door.
Plate 64: Blocked window.
Plate 65: Plinth east of door terminates to respect former manure pit (keyed in brickwork) – see Figure 25b.
Plate 66: Stables, west elevation.
Plate 67: Double-header arch of former window, behind signage boards (see Figure 25a).
Plate 68: Interior of stables (GF) looking north-east.
Plate 69: Interior of stables (1F) looking west.
Plate 70: Infill block **E** looking north-east (**NB**: straight joint in west wall of Acidifying Sheds **B1/2** behind).
Plate 71: Representative interior.
Plate 72: Blocked doorway (brick head, breeze-blocking) in south wall (back of cupboard).
Plate 73: Chamfered plinth of **B1** west wall, visible in corridor of infill block **E**.
Plate 74: Modern toilet block and covered area between Buildings **D** and **B2**.
Plate 75: Modern pent-roofed shed partly covering yard area between Buildings **C**, **D** and **B2**.

List of Tables

Table 1: ‘Monuments’ included upon the WCC HER.....	9-10
Table 2: ‘Events’ included upon the WCC HER	10
Table 3: Relevant Historical Planning Applications included upon the WCC HER	11

List of Appendices

- APPENDIX A:** Written Scheme of Investigation (Tyler, 2014).
APPENDIX B: Register of Project Drawings
APPENDIX C: Register of Project Photographs.
APPENDIX D: Transcript of Dr Strauss’s account of Vinegar Works, 1864.

FORMER HILL & EVANS VINEGAR WORKS

LOWESMOOR, ST MARTIN'S GATE, WORCESTER

Historic Building Record

Planning Reference: P09D0106 (Condition 10)

Summary

*An historic building record was undertaken in July 2015 in respect of a number of structures related to the former Hill, Evans and Co. Ltd. vinegar works at St Martin's Gate, Lowesmoor Trading Estate, Worcester (centred on NGR SO 85300 55012). The record was required by the archaeological officer of Worcester City Council (WCC) as a condition of planning consent (ref. **P09D0106**, Condition 10) for the demolition of a series of late-19th and early-20th-century buildings, to facilitate the redevelopment of the site, to include the refurbishment/adaptation of a four-storey former granary building.*

The company of Hill, Evans and Co. originated in 1830 and developed the Lowesmoor site from c.1840 on, with a principal phase of enlargement occurring in the mid-late 1860s. The vinegar works was, in its time, reputed to be the largest producer of malt vinegar in the world, and the associated manufactory at its peak extended to an area of c.7 acres. Since the closure of the company in 1965, the later-20th and early-21st century has witnessed the gradual attrition of the more utilitarian of the vinegar-works buildings, many demolished in comparatively recent years. Only those structures displaying a degree of architectural pretension have been preserved 'in-situ' and incorporated within the redevelopment of the St Martin's Quarter; a number of buildings have been previously recorded ahead of demolition.

A total of five structures were recorded as part of the current project, dating from the mid-late 19th century through to the early years of the 20th century, as follows:

Building A: Granary (built c.1860-64)
Building B: Acidifying Sheds (built in two-phases, c.1860-65 and 1876)
Building C: Filtering Shed (built 1904)
Building D: Stables (built 1885)
Building E: Infill Block / Passage (built c.1890-1900)

With the exception of the four-storey granary building, which is to be retained within the current development, the recorded structures are essentially utilitarian in nature and are of limited inherent architectural or aesthetic merit. The buildings have, further, been removed to a large degree from their original historical context by 50 years of post-vinegar works use, and as a result of the wide-ranging demolitions of related buildings during recent years, associated with the extensive redevelopment of the surrounding area for contemporary use.

Given the adjudged limited significance and aesthetic merit of the recorded structures, and again with the exception of the granary range, the preservation of the vinegar-works buildings in-situ was not deemed necessary within the context of the current redevelopment. In this event, the conditional application of the current building recording action has allowed for a proportionate visual and interpretive record of the structures to be made in advance of demolition/refurbishment and redevelopment of the site, representing in effect a 'preservation by record', and has as such fulfilled the project aims as specified by the pertinent planning conditions and in accordance with the project WSI. Together with the previous studies of associated buildings undertaken in 2002 and 2009, it forms part of a more general, wide-ranging record of former Hill & Evans manufactory, supplemented by a significant collection of documentary sources held by the Worcester Archives.

FORMER HILL & EVANS VINEGAR WORKS

LOWESMOOR, ST MARTIN'S GATE, WORCESTER

Historic Building Record

Planning Reference: P09D0106 (Condition 10)

1 INTRODUCTION

The current report outlines the results of a programme of historic building recording undertaken in July 2015 in respect of a series of buildings related to the former Hill & Evans vinegar works located at Lowesmoor Trading Estate, St Martin's Gate, Worcester (centred on NGR SO 85300 55012). It has been prepared in response to a condition of planning consent (ref. P09D0109, condition 10) for the partial demolition and refurbishment/remodelling of all buildings on the site to allow for mixed-use commercial and residential redevelopment.

1.1 Planning Background

1.1.1 A planning application (ref. **P09D0106**)¹ and Conservation Area consent application was submitted to Worcester City Council on 13th March 2009 in respect of the mixed-use redevelopment of the Lowesmoor site. Specifically the application involves the demolition of a series of utilitarian, single-storey, late-19th and early-20th-century brick buildings to facilitate the erection of a four-storey building comprising 4 no. ground floor class A3 units and a 128 bed hotel on the upper floors, and the conversion of the granary building to no.1 ground floor class A1 retail unit with 9 self-contained flats on the upper floors. The application was approved on 3rd September 2012.² The programme of Historic Building Record outlined within this document, which forms part of a wider ranging programme of archaeological mitigation works, has been required by Mr James Dinn MCIfA, the archaeological officer of Worcester City Council (WCC), as a condition (condition 10) of planning consent.

1.1.2 The full wording of the condition reads as follows:

'10. Archaeological Investigation – Building Recording

No development shall take place until full details of a programme of archaeological building investigation and recording have been submitted to and approved in writing by the local planning authority and the approved scheme shall be carried out as approved. The details shall include:

- i. A comprehensive archaeological building investigation and record of all buildings and structures within the development site, and;*
- ii. A watching brief on demolitions and on intrusive works to retained buildings.*

For the following reason:-

¹ http://planning.worcester.gov.uk/OcellaWeb/viewDocument?file=dv_pl_files\P09D0106%2FAMended+description.pdf&module=pl

² http://planning.worcester.gov.uk/OcellaWeb/viewDocument?file=dv_pl_files\P09D0106%2FDecnot20120910104142COPY.pdf&module=pl

*To allow the historical and archaeological potential of the site to be realised in accordance with Policy **BE21** of the City of Worcester Local Plan 2004 and the aims and interests that the National Planning Policy seeks to protect and promote with regard to heritage assets.'*

1.2 Requirement for Work

- 1.2.1 The historic building record has been required under the terms of **Policy BE21** of the City of Worcester Local Plan, 2004, viz.

POLICY BE21

DEVELOPMENT WITHIN ARCHAEOLOGICALLY SENSITIVE AREAS: DESIGN PRINCIPLES

In discharging its duties as Local Planning Authority the City Council will seek the preservation of the City's varied but finite archaeological resource and its setting. The most extensive areas which are currently known to be archaeologically sensitive are defined on the proposals map, and other sites of archaeological significance are registered on the city sites and monuments record. The City Council will ensure that any development in these areas is designed to minimise damage to features or remains of archaeological interest, preserving such features or remains in-situ wherever possible.

- 1.2.2 The buildings of the former vinegar works, although not statutorily listed, are included as a group on WCC's 'List of Buildings of Local Significance in Worcester',^{3,4} and being also located within the Lowesmoor Conservation Area (WCC CA13),⁵ designated in 1989, they clearly represent 'non-designated heritage assets' under the terms of National Planning Policy Framework (NPPF; DCLG 2012).⁶
- 1.2.3 Paragraph 141 of NPPF stipulates that any permitted development affecting a heritage asset should include the provision to record that asset and that Local Planning Authorities should:

"...require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible."

1.3 Scope of Report

- 1.3.1 The current report was commissioned by Mr Jonathan Smith of CgMs Consulting, working on behalf of Hampton Properties of Malvern. No official brief was issued in respect of the current recording action, which has thus been undertaken in accordance with a Written Scheme of Investigation (WSI; Tyler, 2014) reviewed and approved by the planning archaeologist of Worcester City Council in advance of work. A copy of the project WSI is included below as **Appendix A**.
- 1.3.2 The recording, research and report preparation have been undertaken in accordance with English Heritage guidelines as published in *Understanding Historic Buildings: A Guide to Good Recording Practice* (EH, 2006), the Chartered Institute for Archaeologists' *Standard and Guidance for the Archaeological Recording of Standing Buildings or Structures* (CIfA, 2014), and the Association of Local Government Archaeological Officers' *Analysis and Recording for the Conservation of Works to Historic Buildings* (ALGAO, 1997).

³ <http://www.worcester.gov.uk/documents/10499/47612/Buildings+of+Local+Significance+List.pdf/bb7ec3a8-407e-4cde-b99c-751d71dfc27a>.

⁴ Each of the individual buildings included within the current recording action are also included upon the WCC HER (see §.4.6.1; Table 1 below).

⁵ <http://www.worcester.gov.uk/documents/10499/47612/Conservation+Area+Table.pdf/389a1126-44ca-4b1f-b33f-313533a49ab4>

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

- 1.3.3 Archival research was undertaken at Worcestershire Archives on 13th and 14th July 2015 in advance of site survey which was completed over the course of two days on 15th and 16th July 2015.

2 AIMS AND OBJECTIVES

- 2.1 The aim of the historic building record was to provide a visual record of the buildings to be demolished and/or converted and to generate a descriptive and illustrative account and rapid interpretation of the same, including a brief discussion of their history and development, character, date and techniques of construction. The record is broadly commensurate with a 'Level 3' survey as defined by English Heritage in 'Understanding Historic Buildings: A Guide to Good Recording Practice' (EH, 2006; 14, §.5.2-3), viz.:

'An analytical record...comprising an introductory description followed by a systematic account of the buildings origins, development and use. The record will include an account of the evidence on which the analysis has been based. It will also include all drawn and photographic records that may be required to illustrate the building's appearance and structure and to support an historical analysis.' (EH, 2006; 14, §.5.3)

3 METHODOLOGY

3.1 Documentary Research

- 3.1.1 As a Conservation Statement has previously been prepared in respect of the site (CgMs 2006), no significant programme of new archival research was undertaken at this stage. However, to expand upon previous work, and to enable the recorded structures to be placed within a general historical context, a rapid review of readily available published and unpublished documentary source material including trade directories, historical planning applications and relevant company histories held by the Worcestershire Archives and Worcester City Historic Environment Record (HER) was made. A standard search of WCC HER was commissioned, including a review of historical planning applications in respect of the site.

3.2 Historic Building Recording

The historic building record comprised three elements; photographic recording, together with limited drawn and written recording, as follows:

Drawn Record

- 3.2.1 Overall measured plans of the buildings under consideration were prepared on site, using supplied digital drawings (by Laser Surveys of Leigh, Worcester) as a baseline. Drawings were checked on site for accuracy and enhanced/annotated to show features of architectural and historical/archaeological significance (blocked doors, windows, fireplaces, straight joints, evidence for phase breaks etc.) Principal elevations, again based upon supplied base survey, and representative cross sections were recorded as appropriate. A register of project drawings is included below as **Appendix B**.

Photographic Record

- 3.2.1 The photographic survey comprised high resolution digital coverage using a Nikon D3000 digital single lens reflex camera. The record extended to include both general and detail shots, contextual views and accessible exterior and interior elevations, visible structural and decorative details (interior and exterior), general interior views of principal spaces. Where possible, photographs included graded photographic scales. All photographs were recorded on *pro-forma* recording sheets detailing subject, orientation, photographer and date. A register of

project photographs, together with photo location plans, is included below as **Appendix C**.

Written Record

- 3.2.3 A brief written account of the buildings was made, both as annotations to site drawings and as free text to accompany the drawn and photographic records, covering the general development of the site together with the character, date, materials and techniques of construction of the buildings as evident from a non-intrusive examination.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

No significant programme of historical research has been commissioned or undertaken as part of the current project. However, a standard search of Worcester City Council's Historic Environment Record (HER) was made, concentrating upon the structures of the site, and the results are presented here in tabulated form. A brief overview of the evolution of the site, as apparent from historic mapping and other readily available secondary sources,⁷ is included here for reasons of completeness and so as to give a broad historical context for the interpretation of the recorded structures.

4.1 General Background⁸

- 4.1.1 The medieval and modern city of Worcester lies on the east bank of the River Severn, situated on a gravel terrace overlying Keuper marl, at a point where the river cuts into the terrace making its banks directly accessible from the high, well-drained ground. The settlement of Lowesmoor to the east of the city (Figure 1), originally known as 'Losemoor' indicating unenclosed agricultural land of poor quality, was an industrial area prior to its medieval development as a residential suburb, one of four main extramural suburbs (*viz.* Lowesmoor, Silver Street, Foregate Street and The Tything, and Sidbury) growing up on the east bank of the Severn. It stretched for a distance of c.200m beyond the city defences on one of the principal routes extending east from the city walls in the direction of Droitwich. Following the effective levelling of the suburbs during the turbulent years of the Civil War (1639-45), they were only gradually redeveloped throughout the course of the 18th and 19th centuries. Redevelopment was greatly enhanced and accelerated by the construction of the Birmingham and Worcester Canal, begun in 1792 though completed only in 1815, while the advent of the railway in the mid-19th century transformed Worcester into a regional industrial centre, focussed to a significant degree upon Lowesmoor (Brookes and Pevsner 2007, 764). The later development of the area is addressed below with reference to the evidence of historical mapping.

4.2 Map Regression

- 4.2.1 Speed's map of 1610 (Figure 3a) is somewhat schematic and it is difficult to draw firm conclusions, though it is clear that development was fairly well advanced along both sides of Lowesmoor, to the north of the site currently under consideration, as well as along both sides of Silver Street to the west (neither road is labelled). However, the area to the east of St Martin's Gate, beyond the city wall where Hill and Evans were to establish their premises in the early-19th century, remained essentially undeveloped, comprising open, agricultural land, known, at least in part, as 'Pheasant Meadow'.
- 4.2.2 John Doherty's map of 1741 (Figure 3b)⁹ likewise illustrates a pattern of development along both Lowesmoor and Silver Street, with undeveloped land to the south and east, though the latter had been subdivided by a

⁷ See Section §.8 for a full list of sources.

⁸ The following section derives principally from the *Conservation Area Character Appraisal and Management Proposals Draft 3*, prepared by The Conservation Studio (2007) on behalf of Worcester City Council.

⁹ WAAS BA 3156 ref. 899:31.

series of rectilinear hedgerows defining a pattern of individual fields, while the line of the later St Martin's Gate had been laid out and displayed the beginnings of development adjacent to the southern end of Silver Street.

- 4.2.3 George Young's map of 1779 (Figure 4)¹⁰ shows the development site in considerably more detail, and indicates full development to both sides of Silver Street and the beginnings of expansion along St Martin's Gate (here labelled as 'Clap Gate'). The industrial character of the development is illustrated, exemplified by a timber yard on the western side of Silver Street, a carpet factory to the north side of 'Lowesmere', and 'Bellfounders' Yard' opening off the east side of Silver Street. Near the junction of Silver Street and Clap Gate was the Pheasant Inn, occupying a long plot extending eastwards from Silver Street, with a bowling green set within the fields beyond. A single, isolated building stands within the pattern of small, sub-divided plots, this being the Moore's Hospital (labelled '1'). Beyond the Pheasant Bowling Green, the land remained as open fields.
- 4.2.4 A further map of 1808, by John Roper, but based upon another survey by George Young (Figure 5),¹¹ is the first to indicate pre-Hill & Evans activity related to vinegar manufacture in the area, with a small scale 'Vinegar Manufactory' labelled in the angle of Silver Street and Clap Gate (St. Martin's Gate), somewhat to the west of the later Hill & Evans complex.¹² A row of houses fronting the north side of Clap Gate correspond to 'Vinegar Row' annotated on a map of 1824 (see below; Figure 6). Further east, Grainger's Porcelain Factory (unlabelled) lay to the north side of Clap Gate while further east again, the Worcester and Birmingham canal is shown, aligned north-south, with a large basin dominating the land between Clap Gate and 'Lowesmere'.
- 4.2.5 Although focussing principally on an area to the south of the site currently under consideration, a Worcester Corporation plan of 1824 (Figure 6)¹³ is nonetheless of interest in its more detailed depiction of the terrace of housing fronting Clap Gate, first shown on Roper's map of 1808 (Figure 5), and here labelled as 'Vinegar Row'. This again indicates pre-Hill & Evans vinegar manufacturing at the site (see §.4.2.4 and fn.12); Strauss, writing in 1864 (p.277) records that *'a row of about 20 houses, called Vinegar Row, has lately been pulled down by the firm (Hill and Evans), to effect a public improvement.'*
- 4.2.6 Samuel Mainley's map of 1822 (Figure 7a)¹⁴ and a map of 1838 by Dewhirst and Nichols (Figure 7b)¹⁵ illustrate essentially similar layouts. The street plan of Pheasant Street and Factory Walk (later St Martins Street) had been established by 1822, with increasing development evident in the later map, including Grainger's rebuilt porcelain factory. Neither plan, however, indicates significant development within the boundary of the future Hill and Evans site.
- 4.2.7 The first cartographic source to illustrate the Hill and Evans manufactory is thus the Worcester 'Board of Health' plan, published in 1870 (Figure 8a), which depicts the works following (or during) a significant phase of expansion. The core of early buildings around St Martin's Street / St Martin's Gate is shown,¹⁶ together with the New Filling Room to the east side of St Martins Street (formerly 'Factory Walk'), and the office/counting house and storage sheds to the west. The site had been extended southwards up to St Martin's Gate, where the terrace of housing ('Vinegar Row') of earlier maps had been removed to provide a secondary entrance to the works. To the west of the fermentation shed, the Mill and Brewhouse are indicated and, to the south the first phase of supplementary acidifying sheds (Building B1). The granary (Building A) is not shown, however

¹⁰ WAAS BA 3832 ref. r.989.9:349.

¹¹ WAAS BA 3672 ref. 899:31, sheet 2.

¹² Strauss (1864, 277) records that *'it was evident that there were vinegar-works in that city at a very much earlier date, since the present establishment (Hill and Evans) includes the site of two small factories'*. Valentine Green's 'History of Worcester, Volume 2' (1796, quoted in Goodbury, 1992) states that vinegar manufacture represented a *'new source of trade in this part of the kingdom... opened in this city adjoining Silver Street in 1781'*. It is understood that the early works belonged to one Steven Wilkins (Goodbury 1992, 2).

¹³ WAAS BA 9360 C1 ref. x.496.5; digital copy WAAS CD 60.

¹⁴ WAAS BA 10776, ref. 899:1028.

¹⁵ WAAS BA 3661; ref. 899.9:266.

¹⁶ As per an engraving of c.1860 (see §.4.3.1; Figure 12a).

which is unusual, as Strauss's description of the works in 1864 (Appendix D) records the granary as 'new' at that date, and it must be assumed that the survey data upon which the Board of Health plan was based was either incomplete or pre-dated the publication date by some years.

- 4.2.8 The Ordnance Survey 1:500 scale town plan (Figure 8b), surveyed in 1884 and published in 1886, shows the full extent of the works, including both the Granary and the second phase acidifying house (Building B2 of 1876), together with expanded cask stores (north of fermenting shed) and a bottom cooperage to the far west of the site. The lines of the 'Vinegar Works Branch' railway, opened in 1872 (see §.4.4.3), are indicated serving the New Filling Room, the various stores and passing directly to the north of the granary.
- 4.2.9 The piecemeal expansion of the works in the late 19th and early 20th centuries is recorded in subsequent Ordnance Survey editions (Figures 9 and 10).¹⁷ The stables (Building D) are first depicted on the edition of 1904 (Figure 9b), together with the southern extension of the passage between the acidifying sheds and saw mill/ engine house (Building E), while the filtering shed flanking the southern boundary of the works to St Martin's Gate (Building C) is shown on the edition of 1928. A number of the Ordnance Survey editions indicate a raised link between the granary block and the mill house adjacent to the east.
- 4.2.10 An undated 20th-century plan of works is of particular use in identifying the function of most of the buildings on the site (see Figure 11).¹⁸

4.3 Other Graphic Sources

- 4.3.1 Two early engravings of the Hill & Evans works survive, one of c.1860 and a second, undated though apparently post-1876. The first depiction is a bird's eye view of the works, looking south along Factory Walk (later St Martin's Street), and was included in George Samuel Measom's *Official Illustrated Guide to the Great Western Railway* of 1860 (Figure 12a).¹⁹ The core of the manufactory buildings are in place, but it is evident that the western part of the site had yet to be developed at that time, and that the ensemble of four-storey buildings west of the original entrance (35; Figure 11), comprising fermentation house, mill/brewhouse and granary (31, 28/25, and 20; Figure 11), remained as yet unbuilt.
- 4.3.2 The second view (Figure 12b) is undated, though it clearly depicts the manufactory after the significant mid-late 1860s phase of expansion with the new fermenting shed, brewhouse/mill and granary evident to the western part of the site, together with an additional tall, free-standing stack. To the rear of the fermenting shed, two east-west aligned structures with ridge vents are visible, evidently corresponding to acidifying sheds B1/2, the second of which is precisely dateable to 1876 (see §.4.7, Table 3 below) and thus providing a *terminus post-quem* for the engraving. The extant 'New Filling Room' is depicted to the foreground fronting onto St Martin's Street, while the 'Vinegar Works Branch' railway, opened in 1872, can be seen to be in operation.

4.4 Hill, Evans and Company

- 4.4.1 The firm of Hill & Evans can be traced back to 1830 when the company, trading originally as Hill, Evans and Williams was established, at first on a modest scale out of premises at No. 7 Foregate Street,²⁰ though it is apparent that early success necessitated expansion to larger premises at St Martin's Street, Lowesmoor (the site currently under consideration). The company was founded by William Hill, an engineer, and Edward

¹⁷ See CgMs (2006, §.2) for a fuller account of the development of the works based upon historical OS mapping.

¹⁸ WAAS BA 9642, parcel 13 (ii), ref. s.899:652. The plan includes the filtering shed C and must thus post-date 1904.

¹⁹ The date of the view is refined by the presence of the main office / counting house fronting Factory Walk; this building dates to 1859 and is dated by a plaque on the extant building which has been retained and incorporated into the modern 'ASDA' development.

²⁰ See *Pigot's Commercial Directory* 1835, 677; *Guide and Directory to the City and Suburbs of Worcester* 1837, 187; *Bentley's History Gazetteer and Directory of Worcester* 1840, 192; *Pigot's Directory* of 1841, 57; *Hunt's Commercial Directory* of 1847, 172; and *Slater's Directory of Worcestershire* 1850, 74.

Evans, a chemist,²¹ together with one Joseph Williams, a manufacturer of 'British Wines',²² though Williams was to sell out his share of the company to Hill and Evans fairly early on in 1850, reported in the London Gazette of 8th January of that year (Issue No. 21057) as follows:

'Notice is hereby given, that the partnership heretofore subsisting between us the undersigned William Hill, Thomas Rowley Hill,²³ Edward Evans, Edward Bickerton Evans,²⁴ and Joseph Williams, carrying on business as British Wine and Vinegarmakers and Merchants, in the city of Worcester, under the firm of Hill, Evans and Williams, was this day dissolved, so far as regards the said Joseph Williams; and that all debts owing to and from the said firm will be received and paid respectively by the continuing partners who will henceforth carry on the said business under the style or firm of Hill, Evans and Company'.²⁵

- 4.4.2 Numerous historical deeds and conveyances deposited at Worcestershire Archives²⁶ evidence Hill and Evans's gradual acquisition of lands at Lowesmoor during the early years of the 19th century, though it is not until *Pigot's Directory* of 1841 (p.57) that the St. Martin's Street address is recorded in a commercial directory (in tandem with the Foregate Street premises, which presumably continued in use as offices). *Slater's Directory* of 1850 (p.74) is the first to list the St Martin's address alone, signifying a final move to the Lowesmoor site.
- 4.4.3 From early on, the company achieved great success (anon. 1903), being recorded in the late-19th century as 'the largest vinegar manufactory in the world' (anon. 1897, 26) with a site extending to c.7 acres and producing in excess of two million gallons of vinegar per year, supplying among others the firm of Lea and Perrins, producers of the celebrated 'Worcestershire Sauce'. In addition to six varieties of vinegar, the company produced a wide range of British wines for both domestic consumption and export, being listed variously as 'Vinegar Makers', 'British Wine and Vinegar Makers' and, on occasion, as cider and perry makers (see inset advertisement below).²⁷ The manufactory was essentially self-contained, complete with all of the necessary brewery crafts and processes including its own granary and mill, cooperages and a distillery as well as the manifold processes associated with vinegar and wine making. An extensive system of underground storage vaults extended under the north-western part of the site, some up to 240ft. in length. The manufactory witnessed a significant phase of expansion in the mid-late 1860s (compare Figures 12a and b) and, in 1872, the works acquired its own branch railway line, the 'Vinegar Works Branch' or 'Lowesmoor Tramway', connecting the works to the Shrub Hill Station and thereby, to the main national rail networks.²⁸



Advertisement from Historical Trade Directory

²¹ Evans is listed in Lewis's *Worcestershire General and Commercial Directory* of 1820 as a 'chymist and druggist' operating out of Foregate Street.

²² 'British Wine' or 'sweets' were general terms describing a range of sweet wines based on English fruits (currant, raspberry, cherry, elder etc.) commonly undertaken in tandem with vinegar manufacture; see Dodd 1843, 80-86.

²³ William Hill's son.

²⁴ Edward Evans' son, and later (1862) builder of Whitbourne Hall (Williams 1979, 53).

²⁵ See BA 10543, parcel 1 (iii), ref. 899:749; 'Certificate of Dissolution in respect of J Williams, 1850'; also BA 10543, parcel 8(ii), ref. 899:749; 'Conveyance by Joseph Williams of freehold interest to Hill and Evans'

²⁶ WAAS BA 10543, ref. 899:749.

²⁷ *Kelly's Directory of Worcestershire* (1912, 237); 'Hill, Evans and Co. Vinegar, British Wine and Cider Makers.'

²⁸ Built under the provision of The Worcester Railway and Tramway Bill (1870); see Hughes and Leech 2014, 260. The lines of the former 'Vinegar Works Branch' tracks are partly picked out in the paving of the new retail development.

4.4.4 The company was incorporated in 1900,²⁹ and is first listed as such in a directory of 1912. The company continued to trade throughout the first half of the 20th century, though it was to be taken over by Holbrook in the early 1960s (Conservation Studio 2007, 9; Gwilliam 1993, 123) and production ceased in c.1965. Two years later the premises were converted to use as an industrial estate, latterly related predominantly to the automotive trade, while redevelopment in the early years of the 21st century has witnessed wide-scale demolitions for the creation of a new retail quarter.

4.5 The Lowesmoor Works

4.5.1 It is beyond the scope of the present project to present a full account of the development of the Hill & Evans Manufactory as a whole, the majority of the constituent buildings having been demolished since the demise of the company in 1965, many in the comparatively recent past since 2009.³⁰ A summary account of the development of the works, based upon historical mapping and other sources, and a rapid review of the buildings then extant is given in CgMs's 2006 'Conservation Statement' (§.2), while photographic records and architectural appraisals of a number of the buildings have been previously compiled and deposited with the Worcester City HER (NJA 2002a and b; see §.4.8.4 for individual buildings refs.).

4.5.2 A number of historical accounts of the works survive, including those of GLM Strauss (1864), WD Curzon (1883) and an anonymous account from 'Worcester, The Faithful City' of 1897. These are of particular interest in expanding upon some of the processes historically undertaken in the various parts of manufactory and, for this reason, the fullest account, that by Strauss, is transcribed here (in part) at **Appendix D**.

4.6 Worcester City HER

4.6.1 A standard search of the Worcester City Historic Environment Record (HER) revealed a total of 27 monuments within the vicinity of the development site, related primarily to the Hill & Evans vinegar manufactory itself, summarised as follows (buildings currently under consideration are highlighted in bold):

HER Ref.	Site Name	NGR	Description
WCM92132	Burnham's Garage, St Martins Gate	SO 8524 5500	Building used by fire service during WWII, cleared 1998/9.
WCM96180	Grainger's Porcelain Factory	SO 8530 5500	Site of pre-1809 porcelain factory.
WCM96181	Grainger's Porcelain Factory	SO 85365 55010	Site of rebuilt factory following fire of 1809 (WCM96180)
WCM99206	The Pheasant Bowling Green	SO 8525 5502	Bowling green assoc. Pheasant Inn, shown on Young's map of 1779 (Figure 4)
WCM98139	Tannery	SO 8524 5500	Site identified on 1884 OS
WCM98344	Hill Evans Vinegar Works; Bottom Cooperage	SO 8524 5503	6-bay, double-pile range recorded in 2009, since demolished.
WSM98345	Hill Evans Vinegar Works; Cask-firing shed	SO 8525 5502	(Demolished since 2009).
WSM98346	Hill Evans Vinegar Works; Granary	SO 8527 5503	Extant (part of current recording action; Building A)
WSM98347	Hill Evans Vinegar Works; Paint Shop	SO 8528 5500	(Demolished since 2009).
WSM98348	Hill Evans Vinegar Works; Fitting Shop	SO 8528 5499	(Demolished since 2009).

²⁹ WAAS BA 10543, parcel 20 (iii); ref. 899:749. 'Agreement of sale of Hill, Evans and Co. to Hill, Evans and Co. Ltd.', dated 5th June 1900.
³⁰ As late as 2007, the 'Lowesmoor Conservation Area Character Appraisal' remarked upon the 'extensive survival of 19th-century industrial buildings, particularly from the Worcester Vinegar Factory' citing it as a factor of special interest in the justification of the designation of the Conservation Area (The Conservation Studio, 2007, 4).

WSM98350	Hill Evans Vinegar Works; Engine House	SO 8529 5501	(Demolished since 2009).
WSM98351	Hill Evans Vinegar Works; Brew House	SO 8530 5502	(Demolished since 2009).
WSM98352	Hill Evans Vinegar Works; Pump Room	SO 8529 5503	(Demolished since 2009).
WSM98353	Hill Evans Vinegar Works; Tun Room	SO 8528 5503	(Demolished since 2009).
WSM98354	Hill Evans Vinegar Works; Mill	SO 8528 5504	(Demolished since 2009).
WSM98355	Hill Evans Vinegar Works; Mill and Boilers	SO 8529 5504	(Demolished since 2009).
WSM98356	Hill Evans Vinegar Works; Passage	SO 8530 5501	Extant (part of current recording action; Building E)
WSM98357	Hill Evans Vinegar Works; Fermenting Room	SO 8530 5504	Recorded in 2009; incorporated into new retail development.
WSM98359	Hill Evans Vinegar Works; Acidifying Room (north).	SO 8532 5504	(Demolished since 2009).
WSM98360	Hill Evans Vinegar Works; Vat Room	SO 8352 5505	(Demolished since 2009).
WSM98361	Hill Evans Vinegar Works; Old Entrance	SO 8534 5505	(Demolished since 2009).
WSM98362	Hill Evans Vinegar Works; Distilling and Vat Rooms	SO 8536 5505	(Demolished since 2009).
WSM98363	Hill Evans Vinegar Works; Building to south of Brewhouse	SO 8531 5500	Extant (part of current recording action; Building B)
WSM98366	Hill Evans Vinegar Works; Toilet Block	SO 8525 5504	(Demolished in 1982).
WSM99585	Hill Evans Vinegar Works; Filtering Shed	SO 8530 5498	Extant (part of current recording action; Building C)
WSM99586	Hill Evans Vinegar Works; Stables	SO 8533 5498	Extant (part of current recording action; Building D)
WSM99587	Grainger's Porcelain Factory; Kiln	SO 8534 5500	(Demolished since 2009).

Table 1:
'Monuments' included upon the Worcester City Council Historic Environment Record for Lowesmoor Trading Estate (south).

4.6.2 In addition, four events are recorded on the WCC HER as follows:

HER Ref.	Site Name	NGR	Event Type / Date	
WCM100177	Grainger Porcelain Works	SO 8535 5501	Building Survey, 1984	T Bridges
WCM100582	Grainger Porcelain Works	SO 853 550	Archaeological Watching Brief, 1967	Sandon and Sandon
WCM100783	Lowesmoor Trading Estate	SO 853 550	Archaeological Assessment, 2000/2001	M Heaton
WCM100972	St Martin's Place	SO 853 550	Field Observation, 1955	L Richardson

Table 2:
'Events' included upon the Worcester City Council Historic Environment Record for Lowesmoor Trading Estate (south).

4.7 Historical Planning Applications

4.7.1 The precise dating of three of the recorded structures has been established by reference to a series of historical planning applications, copies held by Worcester City HER and listed at Table 3 overleaf. Copies of selected deposited drawings are reproduced below, cross-referenced as appropriate to the building descriptions and discussion of the site development.

Planning Ref.	Date	Summary
478	28.10.1876	Acidifying Room (B2), St Martins Gate by J Wood and Sons (Builders) for Messrs. Hill, Evans and Co.
967	19.01.1885	Proposed New Stables (D) by J Wood and Sons for Messrs. Hill, Evans and Co.
3419	18.07.1904	Proposed Filtering Shed (C) Yeates and Jones (Architects and Surveyors) for Messrs Hill, Evans and Co. Ltd.

Table 3:

Summary of relevant historical planning applications at Worcestershire Archives and as supplied by Worcester City HER.

4.8 Previous Archaeological Work / Historical Research

- 4.8.1 An 'Archaeological Assessment' of the Lowesmoor Trading Estate was undertaken by Michael Heaton of Archaeological Site Investigations in 2001 (WSM100972) and has been deposited with the WCC HER (ref. SWR18440).
- 4.8.2 A 'Conservation Statement' in respect of Lowesmoor, Worcester was prepared by Dr Nicholas Doggett and Ms Joanna Fisher of CgMs Consulting (document ref. ND/JF/7417) in August 2006 on behalf of Hampton Properties of Malvern and was submitted to WCC at an earlier stage of the application process for the current development.
- 4.8.3 A 'Conservation Area Character Appraisal and Management Proposals' document in respect of the Lowesmoor Conservation Area (Worcester CA13) was prepared in 2007 by The Conservation Studio of Midhurst, West Sussex on behalf of Worcester City Council.³¹
- 4.8.4 A 'Photographic Survey' and an 'Historical Assessment and Architectural Appraisal' of the then surviving buildings on the Hill and Evans site were undertaken by Nick Joyce Architects (NJA) in 2002, and have been deposited with the WCC HER (refs. SWR18578 and 18577 respectively). A number of the individual structures of the former vinegar works were recorded by NJA prior to demolition and/or conversion after 2009, viz. the Clock House, Distilling and Vat Rooms (ref. SWR18770), the Fermenting Room (ref. SWR18771), the Vat Room and Acidifier Rooms (ref. SWR18772), the Mill and Brewhouse (ref. SWR18773), and the Bottom Cooperage (ref. SWR18775).
- 4.8.5 A report by Valerie Goodbury (1992), prepared as part of a Diploma course in industrial archaeology at the Ironbridge Institute, contains brief descriptions and photographs of many of the now lost buildings; a copy is deposited with the Worcester City HER.

5 SITE DESCRIPTION AND DEVELOPMENT

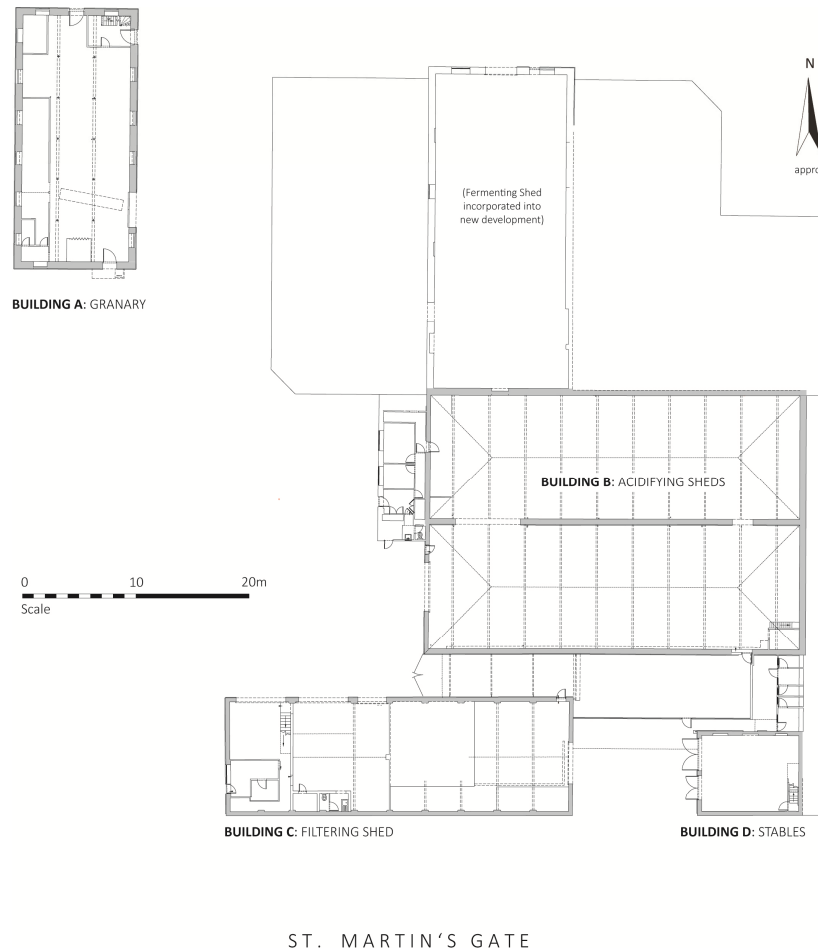
5.1 Overview

- 5.1.1 The current recording action extended to a series of five structures at the south-western corner of the former Hill & Evans manufactory site (see Figure 2; inset plan overleaf; Plate 1), as follows:

Building A:	former Granary (c.1860-64)
Building B:	former Acidifying Sheds (c.1860 / 1876)
Building C:	former Filtering Shed (1904)
Building D:	former Stables (1885)
Building E:	former Infill Block / Passage (c.1890-1900)

³¹ <http://www.worcester.gov.uk/documents/10499/47612/Lowesmoor+Draft+Conservation+Area+Appraisal.pdf/98c522f5-8d35-4cad-9645-6869eec626ca>

- 5.1.2 The majority of the contemporary, associated manufactory buildings have been demolished with only the Grade II listed New Filling Hall, the Office (or Counting House) and the Fermenting Shed (1, 10, 21 respectively on Figure 11) surviving within the current St Martin's Quarter development. The locations of the recorded buildings within the wider historical complex are illustrated on the early 20th-century Ordnance Survey editions at Figure 10a and b.



Hill and Evans: Overall plan of surviving manufactory buildings

5.2 Building A; Granary [NGR: SO 85270 55030; HER: WSM98346]

- 5.2.1 The **Granary** (Figures 14-17; Plates 2-5) is the most imposing of the surviving vinegar works buildings covered by the current study, located to the western edge of the development site and the south-western corner of the original works. The granary was erected in the early-mid 1860s, and reasonably formed part of the major manufactory expansion during this period, being referred to as 'new' in a description of 1864 (see §5.2.8; Appendix D below).³² It probably formed part of a unified phase of work which witnessed the introduction of

³² Interestingly, the granary is not indicated on the Board of Health plan (Figure 8a), published in 1870; the survey date of this plan is not known, however, and it may be that the data upon which it was based was some years old when the plan was published.

the functionally related elements of fermenting shed, mill/brewhouse and boilers, aligned to the west of the earlier vat rooms and entrance block (compare Figures 12a and b). The granary is reputed to have had a maximum storage capacity of 80,000 sacks of grain (anon. 1903).

- 5.2.2 The building is rectangular in plan, aligned approximately north-south with overall dimensions of 75ft (N/S) x 35ft (E/W), standing approximately 35ft to eaves and 45½ft to ridge.³³ It brick-built in red brick laid to a regular English bond, rising through four full storeys above a chamfered, blue-brick plinth to a plain eaves with exposed rafter feet beneath a slate-clad, pitched roof, fully hipped to north and south. Brickwork walls are of 24in. thickness to ground and first floor, 19in. above. The building is of six bays longitudinally,³⁴ with three window-bays to the short elevations (Plates 4/5); it is liberally fenestrated to all exterior elevations with regular, segmental-headed openings beneath double-header, blue-brick arches (Plate 6) with projecting stone cills (heavily weathered and repaired in places) housing iron, multi-pane casements with central, 6-pane pivoted panels. All ground floor windows have been blocked in brick (for security reasons; Plate 7), as have the central vertical row of windows within the south elevation (Figure 15b; Plate 5), the latter effected for the historical insertion of an internal elevator. The north elevation was originally furnished with a hoist above the central bay, with a timber-clad, projecting lucam rising to third floor level (see Figure 12b), though this has been historically removed and the associated loading doors at each of the upper levels blocked in brick (Figure 15a; Plate 4).³⁵ A secondary fire-escape stair to the east side of the south elevation is served by doors at each level, adapted from former window openings (evidenced by queen-closers to the western window jambs). A single, pedestrian door at the north end of the east elevation forms the principal point of entry (Plate 9), opening onto the base of an internal stair, while a wide vehicular doorway to the south end of the same elevation (Plate 8) clearly represents a secondary insertion. A blocked doorway at the upper level of the east elevation, Bay 2 (Figure 14a; Plate 10) formerly served a raised walkway, communicating with the adjacent four-storey mill range to the east, the line of which is indicated on a number of historical maps (Figures 9b, 10a/b). In the west elevation (Figure 14b; Plate 3), regular areas of patching on bay divisions at second and third floor level (Plate 11) relate to an undated phase of internal modification when transverse steels were introduced from this side of the building, and a number of original supporting columns removed internally to free up floor areas.
- 5.2.3 Internally, each of the four floor levels originally constituted a single, essentially unencumbered space though at each level, secondary ephemeral partitions have served to sub-divide these spaces to varying degrees. Ground floor level (Figure 16a; Plate 12) is perhaps the most modified, with a number of breeze-block partitions defining a series of secondary stores etc. against the west wall, a brick-enclosed oil tank to the north-west corner (Plate 16), inserted garage doors with related vehicle inspection pit to the south end of the east elevation, studwork walls enclosing the principal stair to the north-east angle and an inserted elevator to the centre of the south wall. The room is of six regular bays of c.11ft 9in. standing 8½ft. tall to the underside of the first floor, the latter carried on two longitudinal timber beams, 12in. x 9in. in section, supported at bay intervals by 8in. cruciform section iron posts (Plate 13). Principal beams, chamfered and stopped to respect bay divisions, are formed in two-bay sections, simply butt-jointed, strapped and bolted above supporting posts (Plate 14). Common joists are of 9 x 2½in. scantling, set at 14in. centres and resting atop the principal beams (Plate 13); they are trimmed at the heads of the iron support columns to allow the base of the first floor columns (where surviving) to rest atop the longitudinal beams. The first floor structure includes a number of small (5½in. sq.) chutes, with steel closing plates (8 total at this level), similar to those recorded at first floor level (see Plate 25), for the former vertical movement of grain. All exterior windows are blocked in brick at this level, though they were noted to be furnished with bull-nosed brick jambs and cills and flat-heads formed of simple timber lintels, variously renewed in steel. At the north-east angle, the principal, timber stair rises as a straight-flight with closed-string, chamfer-stopped newel and 1in. stick balusters beneath a curved-top timber

³³ Measurements will be given in Imperial units, the system used at the time of the buildings construction.

³⁴ Here numbered 1 to 6 from north to south.

³⁵ The upper gable roof of the lucam survived in part in as late as 1992 (see Goodbury, plate between p.10 and 11), though the doorways had been blocked before that time.

handrail, rising from west to east, cutting across the eastern window of the north wall, to a ¼-turn winder at first floor level (Plates 17/18).

- 5.2.4 Upper floor levels are similar in layout (see Plates 19/20), though at both first and second floor (Figures 16b/17a), eight of the original cruciform support columns have been removed (Plate 21) to open up and maximise the utility of the floor area, leaving only two at Bay 3/4 *in-situ* (Plate 22). At each level, four transverse steel I-section beams (21 x 8in.) have been inserted (from the west - see §5.2.2), extending across the width of the range, the primary longitudinal timber beams being simply cut through and supported to each side by a lower steel plate bolted to the soffit of the transverse RSJ (Plate 23). Flooring is in softwood boarding throughout, aligned north-south, with a simple 2in. fillet skirting detail to exterior walls (Plate 24). Details of floor chutes at first floor level are as per those recorded at ground floor level (16 at this level; Plate 25), while at second floor level, they take the form of larger, removable floor hatches (25 x 14in., 10 in total; see Plates 27/8).
- 5.2.5 A 5in. offset in the brickwork of the exterior walls is visible within the stairwell at the north-east angle of the range (Plate 26), marking the reduction in wall width from 24 to 19in. at this level (see Figure 15c).
- 5.2.6 Third floor level (Figure 17b), being the topmost storey, does not require the intermediate support posts of the lower levels and would have originally comprised a fully open space, although this has been disrupted by the introduction of a series of ephemeral stud and plasterboard partitions and a suspended ceiling for post-granary office use (Plate 29). It is lit by standard windows to all exterior walls, here with internal segmental arches; the walls are unpainted revealing bull-nosed blue-brick jambs, cills and heads. Removable hatches within the floor³⁶ open onto the floor below (Plate 28). At the head of the stair (Plate 30) a high-level wall-box within the east wall (Plate 31) evidences motive power to the former granary machinery within the range, long removed.
- 5.2.7 The roof over the granary (Plate 32) is of six bays, four regular bays to the central part (Bays 2-5) and two, slightly longer, hipped bays to north and south (Bays 1 and 6 respectively). Trusses are of a simple king-bolt form with raking timber struts rising from the tie (where they are separated by a straining piece) to principals at the level of a single tier of side-purlins; an iron shoe or socket to the apex receives both the upper end of the principals and the iron king-bolt. The outline of the gable over the northern lucam is traceable in the common rafters over the northern hip.
- 5.2.8 Beyond larger-scale features such as the evidence for the external lucam, and the internal vertical grain chutes/floor hatches and a single wall-box, the granary retains little evidence for its primary or historical functions, perhaps the inevitable result of 50 years of post-vinegar works use. A contemporary account of the works by Strauss et al. is of interest, not only in providing a loose date for its construction (being described as 'new') but also in broadly defining the early arrangements and processes undertaken within the building:

'Requesting that we begin at the beginning, and finding that the beginning is grain, we cross a yard where the new red buildings rise storey above storey like dock warehouses, and are taken to the granary floors, of which, beside the basement. There are three, together capable of containing some 8000 quarters of the grain from which the vinegar is composed. To the topmost room this grain is first hoisted by means of a crane, and through the traps in the boards, is afterwards shot into the lower floors, where heaps of barley and sacks of malt lie in all directions ready for unnumbered brewings.'
(Strauss 1864, 277).

5.3 Building B; Acidifying Sheds [NGR: SO 8531 5500; HER: WSM98363]

- 5.3.1 **Building B** (Figures 18-20) is located to the south of the former fermenting shed which has been retained and incorporated within the modern retail development. It is bi-partite in plan, comprising two parallel ranges

³⁶ Only two (of ten) visible at this level due to the introduction of modern floor linings.

aligned east-west (**B1** to the north; **B2** to the south; Plate 33), essentially identical in form but demonstrably representing two distinct phases of development. B1 to the north is the earlier of the two, of the mid-late 1860s but incorporating earlier fabric, while B2 to the south dates to 1876 (Figure 20).³⁷ Currently serving as enclosed car-parking accommodation, the ranges when built functioned as acidifying sheds.

- 5.3.2 **Building B1** is rectangular in plan, aligned east-west, with overall dimensions of 107½ft. (E/W) x 36ft (N/S), standing 17ft to eaves and 26ft 9in. to ridge. It is brick built in red-brick laid to a regular English bond rising through a single, high storey above a chamfered, blue-brick plinth to a plain eaves with exposed rafter feet, beneath a pitched, slate-clad roof, fully hipped to east and west. Walls are of 18in. thickness to the long elevations, but of 14in., where accessible, to the shorter, western elevation. Exterior elevations are for the most part obscured by adjacent buildings (Plate 34), though the original arrangements of the range are readily apparent from interior observations; it meets building B2 to the south in a clear straight joint (see Plate 70).
- 5.3.3 Internally, the range comprises a single, unencumbered space (Plates 36/7) of nine bays (here numbered 1 to 9 from east to west), open to the roof, comprising seven regular bays of 10½ft. (Bays 2-8) and two slightly longer bays to the hipped ends (Bays 1 & 9). Bays are defined by regular, timber queen-post trusses with raking struts rising from bolted, joggled posts to principals slightly above the level of the lower of two tiers of side purlins. Ties rest upon timber pads let into the brickwork to north and south. Flush skylights at Bays 2, 4, 6 and 8 originally formed raised ridge vents, visible on the 1870s engraving (Figure 12b). The north wall is of particular interest and includes evidence for the incorporation of earlier fabric (Figure 18b). A full-height straight joint at Bay 4/5 (Plate 38) clearly indicates that the range was built up to an incorporated the fabric of the southern wall of an earlier block, corresponding with an earlier acidifying shed (labelled 32a on Figure 11). The eastern part of the north wall includes a series of six blocked openings, 5ft. wide beneath semi-circular, double-header arches (Plates 38/9), formerly serving the early acidifying shed; at the north-east angle, the east wall of the range abuts the infill of one of these openings (Plate 40), indicating that the earlier structure originally extended further to the east. The western section of wall, by contrast, includes only one blocked doorway, at Bay 8, here with a segmental arch of double-header construction. The western wall was originally furnished with a wide (10ft.) doorway, spanned by a segmental head of triple-header form, though this has been historically reduced to form a single, pedestrian doorway to the north side of the original opening (Plate 42); stone hinge blocks and a single plain chamfered jamb (to north side) survive. The south elevation includes an original, semi-circular headed opening to the east (Bay ½; Plate 41),³⁸ and an inserted, full-height, wide opening to the west (Bays 8/9; Plate 43), while the east wall is blind.
- 5.3.4 Although clearly of a discrete phase of development, **Building B2** repeats the arrangements of B1, of identical design, scale and methods/details of construction (Plate 44). The roof repeats the bay pattern of the northern range and the form is identical (Plate 45). A large roller door has been historically introduced to the centre of the west elevation (Plate 45), effectively obscuring any original layout, while a primary, semi-circular headed door to the east end of the south wall has been partially blocked and reduced in size (Plate 46). A secondary store of breeze-block construction, with raised platform over, has been inserted to the south-east angle of the range (Plate 47). The north wall of B2 constitutes the original exterior wall of the earlier block (B1), evidenced by the incidence of a chamfered plinth to the full length of the wall, otherwise unusual in an interior context.
- 5.3.5 As elsewhere on the site, 50 years of post-vinegar works use has resulted in the loss of any tangible evidence for the original form and detailed functionality of the space, though reference to historical accounts suggest that the building would have formed more of a covered work area, and that its form was not particularly influenced by or tailored to specific functions related to the acidification process, save perhaps the regular ridge vents of the roof. In early manufactories, the process of acidification had traditionally been undertaken

³⁷ Worcester Planning Application No. 478, dated 28.01.1876. 'Plan and section of proposed new building (acidifying room) on land situate at Clap Gate, being an addition to the works of Messrs. Hill and Evans.'

³⁸ This opening aligns transversely with both an early door to the north and an exterior door within the exterior wall of the later range B2 to the south.

in open 'vinegar fields' or large exterior yards (Dodd 1843, 67-8), though this system proved to be inherently inefficient. Strauss's description of the acidification process employed at Worcester, although written in 1864, some 10 years before the construction of shed **B2** and possibly before **B1**,³⁹ however gives an insight into the processes involved:

'We once more mount by fresh flights of ladder-like steps to the acidifying rooms, where two stories of enormous vats stand in tiers, divided by brick partitions and accessible by a gallery or platform of timber. Into these vats (and there are thirty of them, holding eight to twelve thousand gallons) the wort is thrown by pumps which force it through pipes running underground. Nearly one half of each vat (from the top downwards) is occupied by large bunches of besom or birch-twigs, upon the surface of which the wort is continually splashed and thrown by means of another arrangement of pumps which wait for its arrival from below. The reason of this is sufficiently obvious – acidification being effected by the combination of alcohol with the oxygen of the atmosphere, and the great exposure necessary for complete oxidation being secured by the large surface presented by the bunches of besom through which the air passes freely. In the old process of acidification.... it was customary to expose the vats of wort in large, open spaces, called vinegar fields or yards; but, as well as being less efficacious and slower in the operation, this led to considerable waste of the acetic ether..... even under the improves system adopted by Messrs. Hill, Evans and Co., the acidification is by no means a rapid process, since it takes nearly a month of this exposure to effect the chemical change which converts the liquid into unfinned vinegar'. (Strauss 1864, 279-80).

5.4 Building C; Filtering Shed [NGR: SO 8530 5498; HER: WSM99585]

- 5.4.1 **Building C** (Figures 21/2) is located to the southern side of the site, backing onto St Martin's Gate. Much modified and currently used as a car body repair workshop and car valeting service, the range was originally constructed in 1904 as a filtering shed for the Hill & Evans works (Figure 23).⁴⁰
- 5.4.2 The building is rectangular in plan, aligned east-west (Plate 48) and originally oriented towards the north, with overall measurements of 100ft. (E/W) x 34ft. (N/S), standing 12ft. to eaves and 21½ft. to ridge. It is brick-built in red brick laid to a regular English bond, rising through a single storey above a chamfered blue-brick plinth (Plate 49, absent to south) to a three-course eaves band with central dog-tooth course picked out in blue-brick (Plate 50), beneath a pitched, slate-clad roof, gabled to east and west. Walling is of 14in. thickness throughout.
- 5.4.3 The southern, street elevation (Figure 21a; Plate 48) is plain, blind save for a single, inserted extractor vent and, as noted above, lacking the blue-brick plinth of the works-side elevations, though it does include the dog-tooth eaves band. Eastern and western gable ends (Plates 51/2 respectively) were both originally plain, save for a high-level circular opening to the apex, picked out in bull-nosed blue-brick housing steel-framed windows; a wide double-door has been inserted into the eastern elevation, while to the west a pedestrian doorway and adjacent window have been introduced. The northern roofslope has been modified to the west (Figure 22b) raised for the insertion of two tall, vehicular entrances at the west end of the north elevation, resulting in an asymmetrical profile, though original work is clearly definable (Plate 52). The north elevation (Figure 21b) was also originally blind save for a wide primary doorway, set slightly west of centre (Bay 6), with a segmental arch of double-headers in blue-brick. A single pedestrian door has been inserted to the far east end while, to the west two tall, two-bay vehicular entrances, spanned by flat timber lintels and furnished with galvanised steel roller doors, have been inserted at Bays 7/8 and Bays 9/10 respectively (Plate 52); a straight-joint within the

³⁹ Strauss's description presumably relates to the early acidifying sheds (32a/33, Figure 11), though it may be assumed that the process described continued in a similar manner in the enlarged premises of the 1860s and 1870s. Curzon, writing in 1883, recorded that *'the process goes on monotonously day and night; the acidifiers of which there are 48, together with nine cooling vats working in pairs'* (Curzon 1883, 109).

⁴⁰ Worcester City Planning Application No. 3419, dated 18th June 1904. 'Proposed Filtering Shed, Vinegar Works, Worcester for Messrs. Hill, Evans and Co. Ltd.'

related upper brickwork (Plate 54) clearly indicates that the openings were formed in two distinct phases, though it is not immediately apparent in which order they were introduced. The north-west angle of the range is distinct in being formed in blue brick.

- 5.4.4 Internally, the range originally comprised a single, unencumbered shed of 10 uniform bays of 10ft. (here numbered 1 to 10 from east to west; Figure 22a), open to the apex of the roof and defined by nine trusses (T1-T9) of king-bolt form (similar to Granary A) with raking struts, separated by a timber straining piece, rising to principals at the level of side purlins (Figure 22c; Plate 56). Trusses are supported on projecting, bull-nosed piers of brickwork to north and south. The upper section of the northern roof slope was originally glazed forming a long north-light running the length of the range, though this has subsequently been covered over (two-part slate cladding is evident externally – see Plate 53). Two primary trusses (T7/9) have been removed to the west end of the range, when the high vehicular entrances were introduced at Bays 7/8 and 9/10 of the north elevation.
- 5.4.5 The interior of the range has subsequently been subdivided to form three separate workshop areas by the introduction of a series of breeze-block walls; Bays 1-5 to the east (Plate 57) and Bays 6-8 (Plate 59) and 9/10 (Plate 60) to the west, the latter two spaces being interconnected. An upper floor level has been introduced to Bays 9/10, served by a straight-flight stair rising north-south within Bay 9 (Plate 60). Little remains internally to evidence the original use of the building though areas of face- and edge-laid, blue-brick herring-bone paving to Bays 1-4 (Plate 58) represent an early survival.
- 5.4.6 The plainness and unfenestrated nature of the original building stems from its original function as a filtering house, where vinegar would be stored and impurities filtered out of the liquid before moving to longer term storage and dispatch. As with the other recorded structures, 50 years of alternative use have effectively removed all evidence for former functions. WD Curzon, writing in 1883 (ie. before the erection of the current filtering shed),⁴¹ described the process thus:

'Clarificataion or fining....is accomplished by placing it [the vinegar] in tuns fitted with double bottoms, between which beech chips are placed. Through these, the vinegar filters and becomes quite clear and bright.' (Curzon 1883, 109).

5.5 Building D; Stables [NGR: SO 8533 5498; HER: WSM98586]

- 5.5.1 **Building D** (Figure 24; Plate 61) is located to the south-east angle of the site, backing onto St Martin's Gate to the south and abutted by St Martin's House to the east, the latter erected in 1891 for the Worcester Royal Porcelain Co. Ltd.⁴² Currently functioning as a garage with office over, building D was originally built in 1885 as a stable block for dray horses (Figure 25).⁴³
- 5.5.2 The structure is rectangular in plan, aligned east-west and originally oriented to the north onto a small yard (subsequently infilled), with overall dimensions of 30ft. (E/W) x 24½ft. (N/S), standing 11ft. to eaves and 19½ft. to ridge. It is brick-built in well-fired red brick laid to a regular English bond, rising through a single storey (with utilisable attic space) to a plain eaves with timber fascia, beneath a pitched, slate-clad roof, gabled to the west and abutted by St Martins House to the east. The western and northern walls are enhanced by a low, chamfered blue-brick plinth though, as with Building C, this feature is absent from the southern, street elevation; the latter displays four high level vents. Brickwork walls are of 14in. thickness throughout.

⁴¹ It is unclear where the filtering process was effected prior to the construction of the present building.

⁴² Worcester City Planning Application No. 1518, dated 12th Dec. 1890. 'Proposed New Buildings at Royal China Works' comprising glost house, office and warehousing.

⁴³ Worcester City Planning Application No. 967, dated 19th January 1885. 'Proposed New Stables, Messrs. Hill, Evans and Company'.

- 5.5.3 The principal, north elevation (Figure 24b; Plate 62) is of three bays, pierced by a central door (blocked), furnished with bull-nosed and stopped jambs, segmental-headed with a double-header arch in blue brick (Plate 63); this is flanked to east and west by symmetrically opposed windows (also blocked) with matching segmental heads and projecting, chamfered blue-brick cills (Plate 64). The elevation rises above a blue-brick plinth, though this terminates to the east of the doorway coincident with a former, low, tied-in wall (evidenced by the 'toothing' of alternate courses; Plate 65); reference to the original application drawing indicates that the implied low wall, of quadrant form, originally retained an external manure pit (Figure 25b). The eastern end of the elevation is abutted by a modern, brick-built toilet block range (Plate 74).
- 5.5.4 The eastern gable end (Figure 24c; Plate 66) forms the main façade of the building in its current form, facing onto a small yard area and Building C beyond. It includes two inserted sets of double garage-doors at ground floor level, with a central, original opening over, segmental headed and housing a first floor window, though formerly representing a loading/pitching door (Figure 25a). The double-header arch of an original ground floor window opening (matching those of the north elevation) is visible behind signage to the southern side of the elevation, above the southern set of garage doors (Plate 67).⁴⁴
- 5.5.5 Internally, the ground floor comprises (essentially) a single open space used, at the time of survey, for vehicular storage and workshop purposes and retains little of historic significance. The blocked windows and door of the north elevation are clearly visible, the windows being furnished with bull-nosed, stopped jambs internally. An inserted, enclosed straight-flight stair rises from south to north against the east wall at the south-east corner of the range giving access to the upper level. First floor accommodation is restricted, located as it is beneath the pitch of the roof (Plate 69), which is of three bays and of simple, queen-post construction with raking struts rising to principals at the level of a single tier of side purlins. Currently forming office space, the upper level would originally have served as a hayloft.
- 5.5.6 Recent uses have effectively masked almost entirely the original layout and functionality of the building, and thus the surviving planning application drawing of 1885 (Figure 25) represents an invaluable record. This shows the ground floor of the range to have originally comprised four loose-boxes, two measuring 12ft. x 11ft. and two at 10ft. x 13ft. 11in., each with individual manger and water trough provision, accessed off an axial passage, 5½ft. wide, aligned on the central doorway of the north elevation. Three of the loose-boxes were furnished with exterior windows, though that to the south-east was unusually left blind. The cross-section (Figure 25b) illustrates timber partitioning beneath iron grilles, 7 ft. tall overall, with a floor to ceiling height of 10ft. The upper door of the western gable end would originally have given access to the hay-loft over; no form of internal vertical communication is indicated on the deposited plans and it must therefore be assumed that access was originally externally, via some form of non-fixed ladder.
- 5.6 Building E; Infill Block** [NGR: SO 8530 5501; HER: WSM98356]
- 5.6.1 **Building E** (Figure 18a; Plate 70) represents the remains of a narrow infill block or passageway, aligned north-south, formed between the acidifying sheds (**B**) to the east and former saw mill/ engine house (demolished) to the west ('30' on Figure 11). It was erected at some point between the Ordnance Survey 1:2500 editions of 1888 and 1904 (Figure 9).
- 5.6.2 The structure is brick-built (rendered), of a single storey with a flat roof behind a low parapet to the south. The block has overall surviving dimensions of 38ft (N/S) x 13ft 9in (E/W), with a small, pent-roofed extension appended at the south end; it stands c.11ft tall. The block formerly extended northwards beyond the acidifying sheds, between the fermenting shed (extant) and pump room (demolished). A single doorway at the south end of the west elevation is assumed original, originally opening onto the saw mill (see Figure 11), though two windows to the north represent insertions.

⁴⁴

Also visible internally.

- 5.6.3 Internally, the block has been extensively remodelled to form office accommodation (Plate 71) and retains little of significance. A blocked original doorway with segmental, double-header arch is visible within a cupboard to the south end of the block (Plate 72), while to the north-east, the offset plinth of the western exterior wall of acidifying shed **B1** is visible within the passageway (Plate 73).

5.7 Modern Introductions

- 5.7.1 A modern, single-storey, brick toilet block has been erected backing onto the eastern boundary of the site (*viz.* the western exterior wall of St Martin's House), extending between stables D to the south and the south wall of acidifying shed B2 to the north (Plate 74).
- 5.7.2 The modestly-sized yard area formed between buildings C, B2 and D has been partly covered over by a modern pent-roofed structure of steel-framed construction with lower breeze-block walling and clad externally in profile steel sheets with corrugated asbestos-fibre roof (Plate 75). This area has been partly covered over since at least 1940 (see Figure 10b), though the current structure is much more recent, probably of the 1980s or 1990s.

6 DISCUSSION AND CONCLUSION

- 6.1 The vinegar works of Hill, Evans and Company was, in its time, reputed to be the largest producer of malt vinegar in the world, producing in the region of 2 million gallons per year. The associated Lowesmoor manufactory, at its peak, extended to an area on c.7 acres occupying almost the entire street block between St Martin's Gate to the south, Pheasant Street to the east, Silver Street to the west and Lowesmoor to the north and included its own branch railway; it was renowned as the 'greatest and most important of its kind in the world' (anon., 1903). Since the closure of the company in 1965, however, the later-20th and early-21st century has witnessed the gradual decline of the site and the attrition / demolition of the more purely utilitarian of the manufactory buildings. Only those structures displaying a degree of architectural pretension, namely the Grade II Listed 'New Filling Hall' and the former Office/Counting House, together with the extensively remodelled fermenting house, having been preserved and incorporated within the mixed-use redevelopment of the St Martin's Quarter.
- 6.2 The buildings can be shown to date from the period of rapid expansion of the company during the mid-late 19th century and into the early years 20th century, the earliest buildings, granary (**A**) and northern acidifying shed (**B1**) dating most probably to the early-mid 1860s.⁴⁵ Other ranges are more closely datable thanks to surviving planning application drawings; the southern acidifying shed (**B2**) of 1876, stable block (**D**) of 1885 and filtering shed (**C**) of 1904; infill block/passage (**E**) dates to between 1888-1904, based upon the evidence of historical Ordnance Survey mapping.
- 6.3 With the exception of the four-storey granary building, which is to be retained within the current development, the structures covered by the current recording project are essentially utilitarian in nature, shaped by their functional character, and are of limited inherent architectural or aesthetic merit. Most represent, in effect, large covered working areas for the historical undertaking of manufacturing processes, and the removal of any related machinery following the closure of the vinegar works has left a series of essentially featureless 'sheds'. The buildings have, further, been removed to a large degree from their original historical context by 50 years of post-vinegar works use, and as a result of the wide-ranging demolitions of related buildings during recent years, associated with the extensive redevelopment of the surrounding area for contemporary use.

⁴⁵ Granary A, although not shown on the Board of Health plan of 1870, is described as 'new' in Strauss's account of the works, published in 1864. Acidifying shed B1 is shown as already extant on the submitted planning application of 1876 in respect of the southern shed, B2.

- 6.4 Given the adjudged limited significance and aesthetic merit of the recorded structures, and again with the exception of the granary range, the preservation of the vinegar-works buildings *in-situ* was not deemed necessary within the context of the current redevelopment. In this event, the conditional application of the current building recording action has allowed for a proportionate visual and interpretive record of the structures to be made in advance of demolition/refurbishment and redevelopment of the site, representing in effect a 'preservation by record', and has as such fulfilled the project aims as specified by the pertinent planning conditions and in accordance with the project WSI. Together with the previous studies of associated buildings undertaken in 2002 and 2009, it will form part of a more general, wide-ranging record of the structures of the former Hill & Evans manufactory, supplementing a significant collection of documentary sources held by the Worcester Archives (WAAS BA 10543; ref. 899:749).

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- 7.3 Documentary research and site recording/assessment were undertaken by Mr Ric Tyler MCIfA who also wrote, collated and illustrated the current report.

8 SOURCES

a) Cartographic Sources (in chronological order)

- 1610 John Speed's Map of Worcester.
- 1741 John Doharty's Map of Worcester (WAAS BA 3157, ref. 899:31).
- 1799 George Young's Plan of Worcester (WAAS BA 3832, ref. r.899.9:349).
- 1808 John Roper's Map of Worcester (WAAS BA 3672, re. 899:31, sheet 2).
- 1822 Samuel Mainley's Map of Worcester City and Environs (WAAS BA 10776, ref. 899:1028).
- 1824 Worcester Corporation plan (WAAS BA 9360 C1, ref.x.496.5 page 60).
- 1838 Dewhurst and Nichol's Map of City and Borough of Worcester (WAAS BA 3661, ref. 899.9:266).
- 1870 Worcester Board of Health Plan.
- 1884-6 Ordnance Survey 1:500 town plan.
- 1888 Ordnance Survey, 1:2500 map, first edition.
- 1904 Ordnance Survey, 1:2500 map, second edition.
- 1928 Ordnance Survey, 1:2500 map.
- 1940 Ordnance Survey, 1:2500 map.
- nd. Annotated plan of Vinegar Works (WAAS BA 9642, parcel 13(ii), ref. s.899:652).

b) Primary Sources

Archives of Worcestershire Archives and Archaeology Service (WAAS)

BA 9642, parcel 13 (ii) re. s899:652. Plan of Hill and Evans Works, mid C20th.

BA 9890, parcel 3 ref. b899:427. Picture of Hill and Evans Works, nd.

BA 105453 ref. 899:749. (collection) Conveyances, deeds etc. rel. Hill, Evans and Co. Ltd. (specific items ref'd. in footnotes of main text as appropriate).

Historical Planning Applications

<u>App. No. 478:</u>	<u>28.10.1876</u>	<u>Acidifying Room, St Martin's Gate.</u>
<u>App. No. 967:</u>	<u>19.01.1885</u>	<u>New Stables.</u>
<u>App. No. 1242:</u>	<u>04.02.1888</u>	<u>New Shed at Vinegar Works.</u>
<u>App. No. 1520:</u>	<u>04.12.1890</u>	<u>x3 WCs at Bellfounders Yard.</u>
<u>App. No. 2351:</u>	<u>15.12.1896</u>	<u>Stable, St Martin's Street.</u>
<u>App. No. 2423:</u>	<u>24.05.1897</u>	<u>x2 cottages, St Martin's Gate.</u>
<u>App. No. 3011:</u>	<u>14.12.1900</u>	<u>Conversion of Stables to Workrooms.</u>
<u>App. No. 3149:</u>	<u>18.07.1904</u>	<u>Proposed Filtering Shed, Vinegar Works.</u>

Trade Directories (in chronological order)

- 1820 Lewis's General and Commercial Directory.
- 1835 Pigot's Directory.
- 1837 Guide and Directory to the City and Suburbs of Worcester.
- 1840 Bentley's History and Gazetteer of Worcestershire.
- 1841 Pigot's Directory.
- 1847 Hunt and Co.s' Directory.
- 1850 Slater's Directory.
- 1855 Billing's Directory.
- 1860 Cassey's Directory.
- 1868 Post Office Directory.

- 1869 Littlebury's Directory.
- 1873 Percy, Butcher and Co.'s Directory.
- 1873 Littlebury's Directory.
- 1876 Post Office Directory.
- 1879 Littlebury's Directory.
- 1892 Kelly's Directory.
- 1896 Kelly's Directory.
- 1900 Kelly's Directory.
- 1904 Kelly's Directory.
- 1908 Kelly's Directory.
- 1912 Kelly's Directory.
- 1916 Kelly's Directory.
- 1822 Littlebury's Directory.
- 1928 Kelly's Directory.
- 1932 Kelly's Directory.
- 1936 Kelly's Directory.
- 1937 Kelly's Directory.
- 1940 Kelly's Directory.
- 1948-9 Midland Counties Directory.
- 1955-6 Worcester Directory.
- 1960 Worcester Directory, Trades and Industrial Register.

c) Secondary Sources

ALGAO, 1997. *Analysis and Recording for the Conservation of Works to Historic Buildings*.

Anon. 1897. 'Hill, Evans and Company; Vinegar and British Wine Manufacturers, Worcester' in *The Faithful City; An Illustrated and Descriptive Account of Worcester*. London, W. MacDonald and Co.

Anon., 1903. 'Hill, Evans and Co. Ltd., Manufacturers of Malt Vinegar and British Wines' in *The Worcester Daily Times Trade and Industrial Edition*.

Brookes A and Pevsner N, 2007. *The Buildings of England: Worcestershire*. New Haven and London, Yale University Press.

CIfA, 2014. *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures*. University of Reading, IFA.

Curzon WD, 1883. 'Vinegar and British Wine Making; Messrs. Hill, Evans and Co, Worcester' in *The Manufacturing Industries of Worcestershire*. p.107-110.

Dodd G, 1843. *Days at the Factories or The Manufacturing Industry of Great Britain Described*. London, Charles Knight and Co.

Dussauce H, 1871. *A General Treatise on the Manufacture of Vinegar, Theoretical and Practical*. London, Henry Carey Baird.

English Heritage, 2006. *Understanding Historic Buildings: A Guide to Good Recording Practice*.

English Heritage, 2008. *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment*.

Grundy M, 1997. *Worcester at Work: Portrait of a Victorian City. Worcester, Osbourne Books* (being an augmented reprint of 'An Illustrated and Descriptive Account of Worcester, The Faithful City' of 1897, p.26-7).

Gwilliam B, 1993. *Old Worcester: People and Places*. Bromsgrove, Halfshire Books.

Hughes P and Leech A, 2014. *The Story of Worcester*. Almely, Logaston Press.

Measom G, 1860. *The Official Illustrated Guide to the Great Western Railway*. London, Richard Griffin.

Nick Joyce Architects, 2002a. 'Lowesmoor Trading Estate; Photographic Record'. Unpubl. report commissioned by WCC.

Nick Joyce Architects, 2002b. 'Lowesmoor Trading Estate; An Historical Assessment and Architectural Appraisal'. Unpubl. report commissioned by WCC.

Strauss GLM et al., 1864. 'Messrs. Hill, Evans and Co.s' Vinegar Works at Worcester' in *England's Workshops*. p.275-285. London, Groombridge and Sons. (Off-print at WAAS; shelfmark L 942.448 WORC).

The Conservation Studio, 2007. 'Lowesmoor Conservation Area Character Appraisal and Management Proposals (Draft 3 for Consultation)'. Prepared on behalf of Worcester City Council.

Tyler R, 2014. 'Written Scheme of Investigation for an Historic Building Recording at the former Hill, Evans and Co Works, Lowesmoor Trading Estate, St Martin's Gate, Worcester.' Dated 07.07.2015.

Williams P, 1979. *Whitbourne: A Bishop's Manor*. Whitbourne, the author.

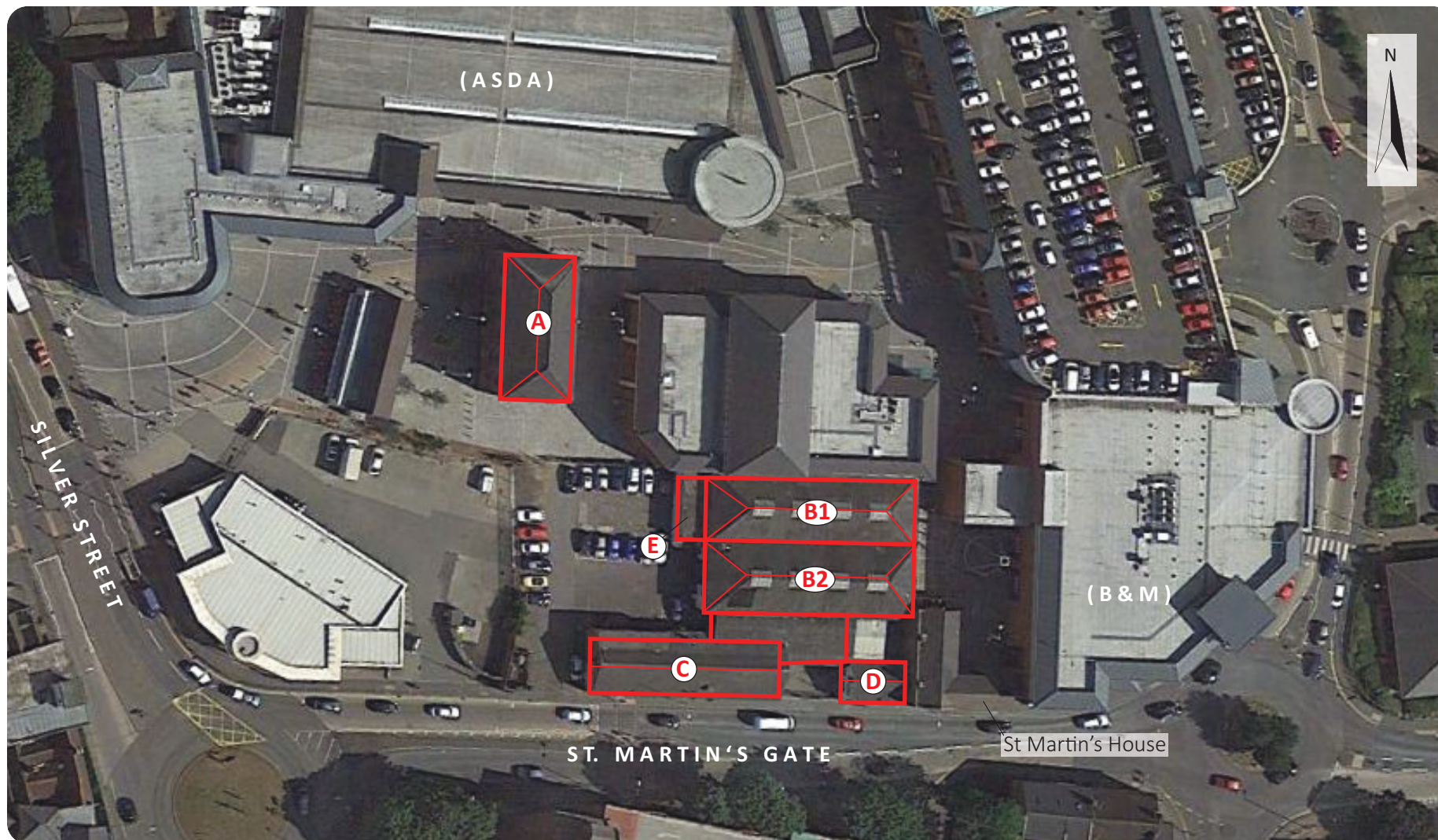
d) On-line Sources

- <http://planning.worcester.gov.uk>
- <https://www.gov.uk>



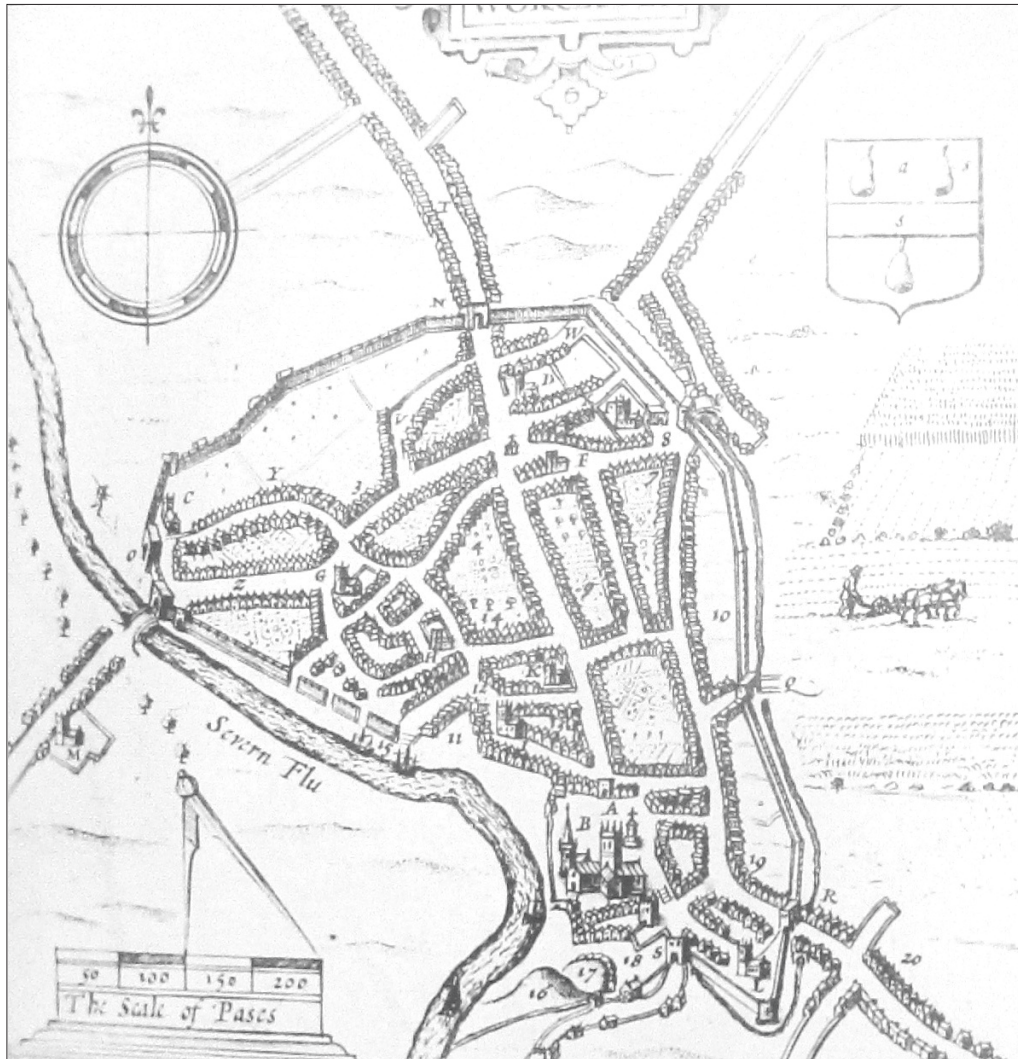
Based upon Explorer 1:25,000 map (Sheets 204)
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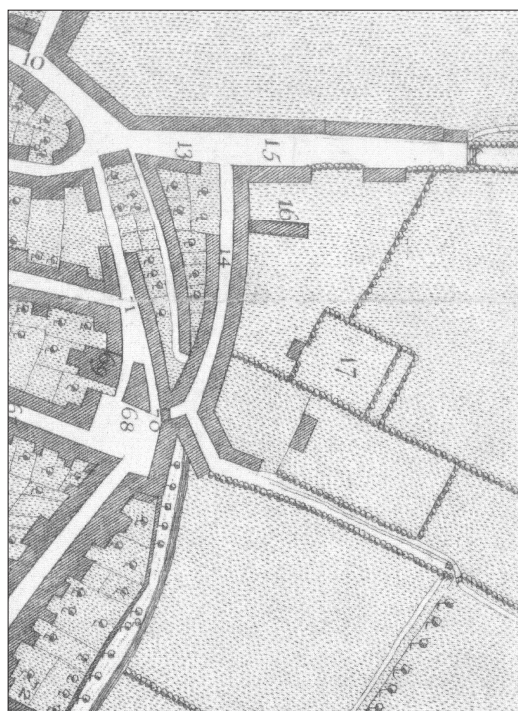


KEY

- A Granary
- B Acidifying Sheds
- C Filtering Shed
- D Stables
- E Infill block




(a) John Speed's map of Worcester, 1610 (St Martin's Gate at top right; '8')

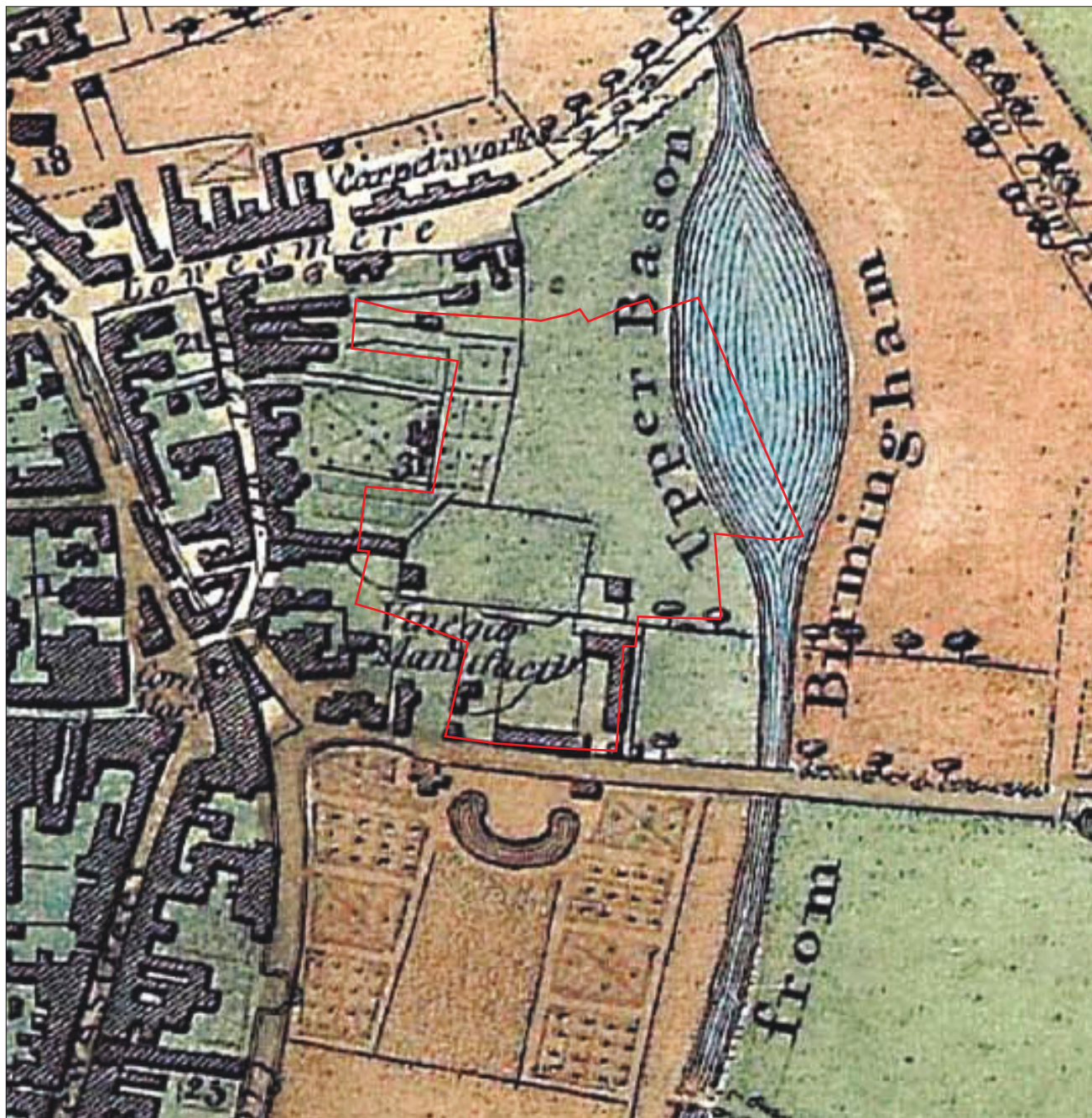


(b) John Doherty's map of Worcester, 1741 (extract)
(WAAS BA 3156; ref. 899:31, reproduced by permission)




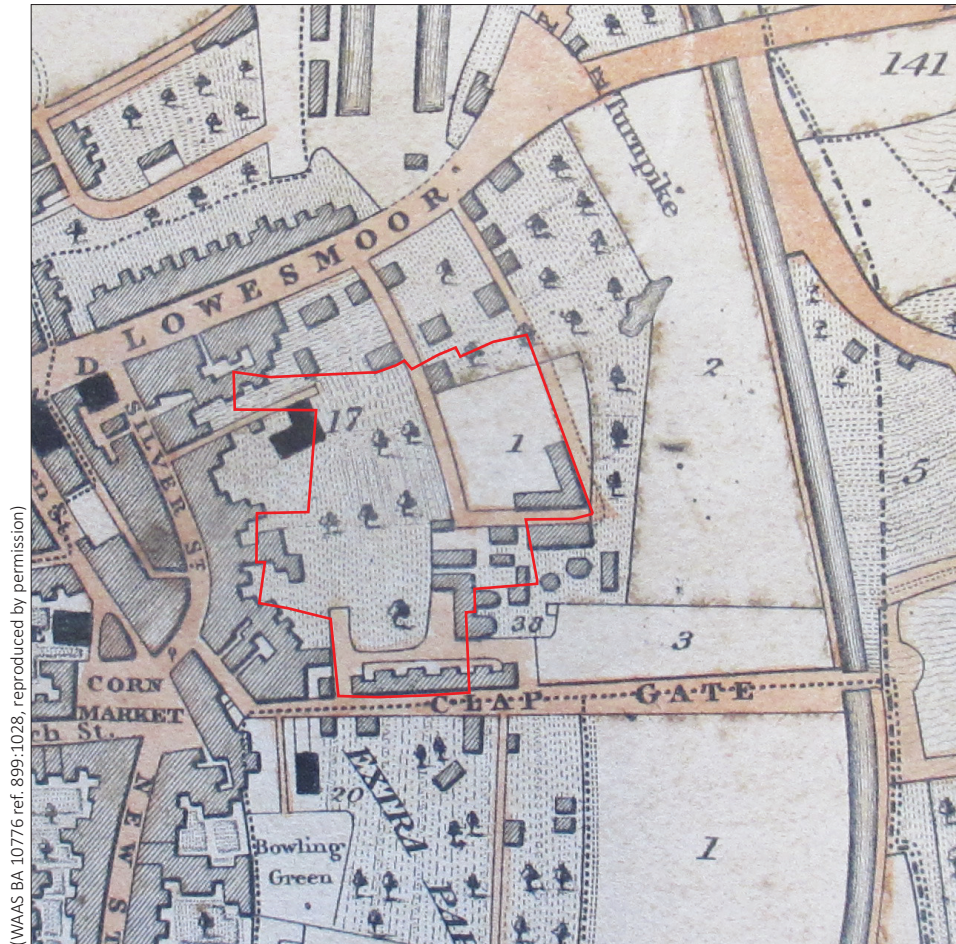
(WAAS BA 3832 Ref. r.989.9:349, reproduced by permission)

 approximate limit of Hill and Evans Works at maximum extent



(WAAS BA 3672 Ref. 899:31, Sheet 2, reproduced by permission)

 approximate limit of Hill and Evans Works at maximum extent




(WAAS BA 10776 ref. 899:1028, reproduced by permission)

(a) Map of City and Environs of Worcester by Samuel Mainley, 1822.



(WAAS BA 3661; ref. 899.9:266, reproduced by permission)

(b) Map of City and Borough of Worcester by Dewhirst and Nichols, 1838.


 approximate limit of Hill and Evans Works at maximum extent



(a) Worcester Board of Health map of 1870 (WAAS BA0000, ref. 0000:000, reproduced by permission).



(b) OS 1:500 town plan, surveyed 1884, publ. 1886 (Worcester City Archives, reproduced by permission).

 surviving structures recorded during current project



(a) 1st edition 1:2500 map of 1888.



(b) 2nd edition 1:2500 map of 1904.


surviving structures recorded during current project



(a) 1:2500 edition map of 1928.



(b) 1:2500 edition map of 1940.

 surviving structures recorded during current project



(WAAS BA 9642, parcel 13 (ii); ref. s.899:652, reproduced by permission)

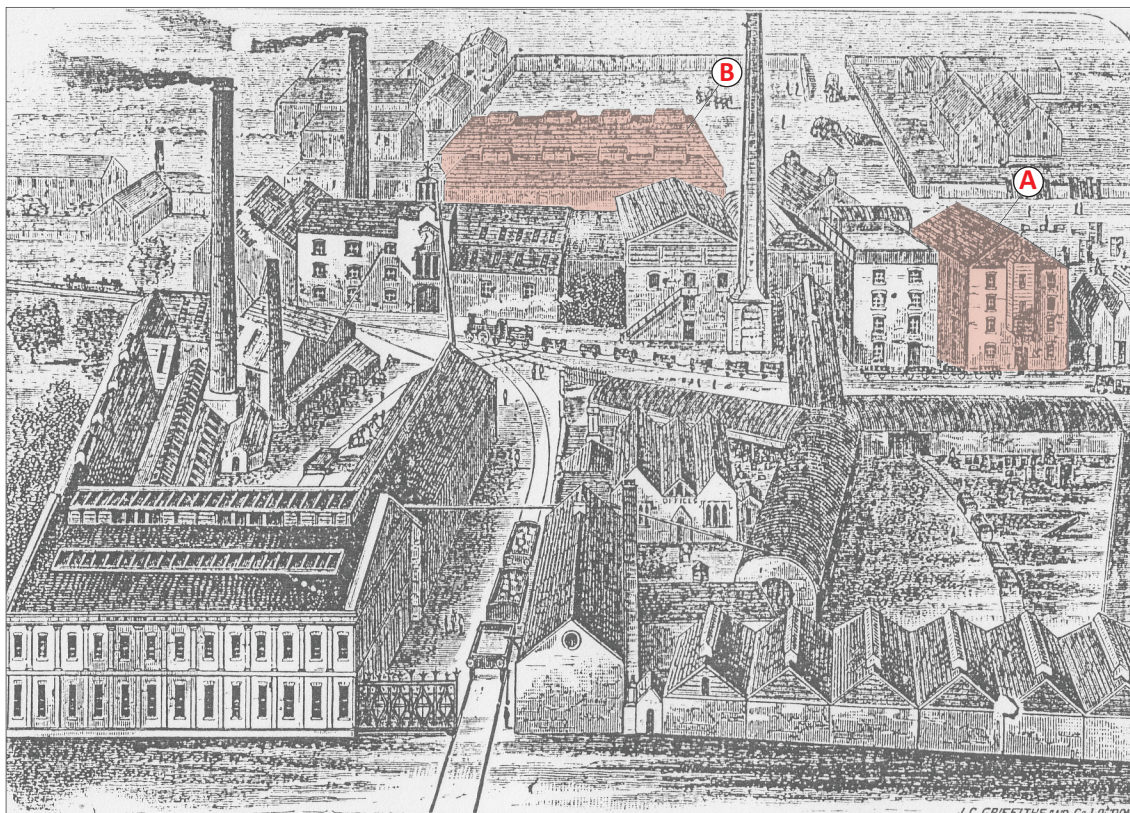
KET TO BUILDING FUNCTION (numbering based on Goodbury 1992)

1 New Filling Shed	11 Cask Shed and Bay	21 Paint Shop	31 Fermenting Shed
2/2a Store / Vat Rooms	12 Cask Shed / Loading	22 Filtering Shop	32a-c Acidifying Sheds
3 Old Filling Room	13 Laboratory	23 Saw Mill	33 Acidifying Shed
4 Scalding Shed	14 Brewhouse	24 Engine House	34 Vat Room
5 Cask Shed	15 Mess Room	25 Brew House	35 Old Entrance
6 Top Cooperage	16 Shed over Cellar	26 Pump Room	36 Distilling and Vat Room
7 Top Cooperage	17/17a Tank and Caskstore	27 Tun Room	
8 Vat Room	18 Bottom Cooperage	28 Mill	
9 Wine Warehouse / Cellars	19 Cask Firing Shed	29 Mill and Boilers	
10 Office	20 Granary	30 Passage	


surviving structures recorded during current project



(a) View of works looking south, from George Measom's *Official Illustrated Guide to the GWR* (1860).

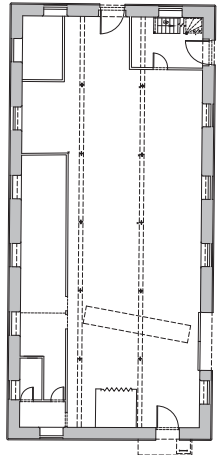


(b) View of works looking south, undated (post-1876).

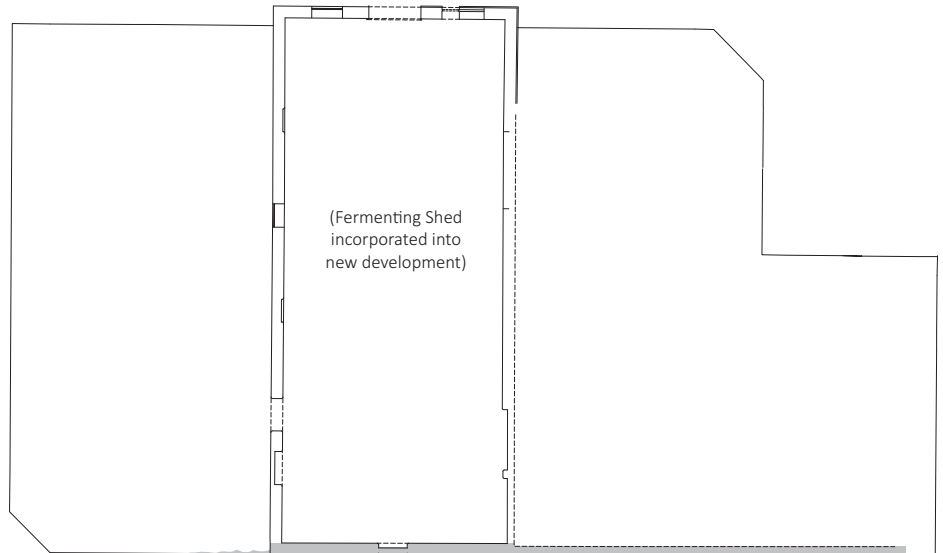
 surviving structures recorded during current project

NB: for illustrative purposes only, **do not scale** from this drawing

N
approx.



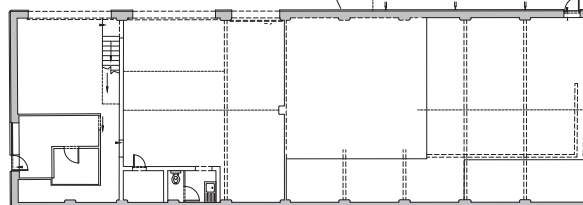
BUILDING A: GRANARY



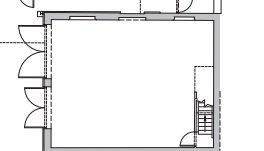
BUILDING B: ACIDIFYING SHEDS

**BUILDING E:
INFILL / PASSAGE**

0 10 20m
Scale 1:400@ A4



BUILDING C: FILTERING SHED



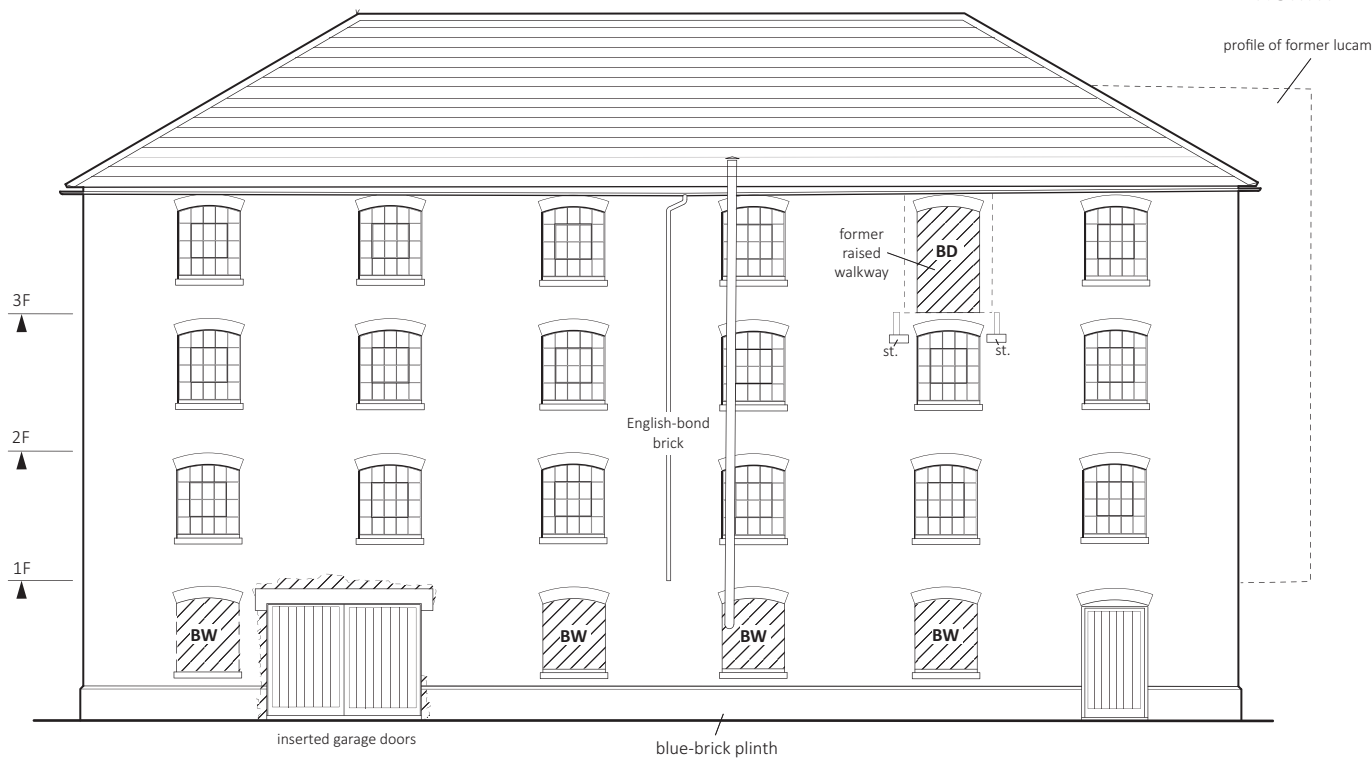
BUILDING D: STABLES

ST. MARTIN'S GATE

NB: for illustrative purposes only, **do not scale** from this drawing

SOUTH

NORTH

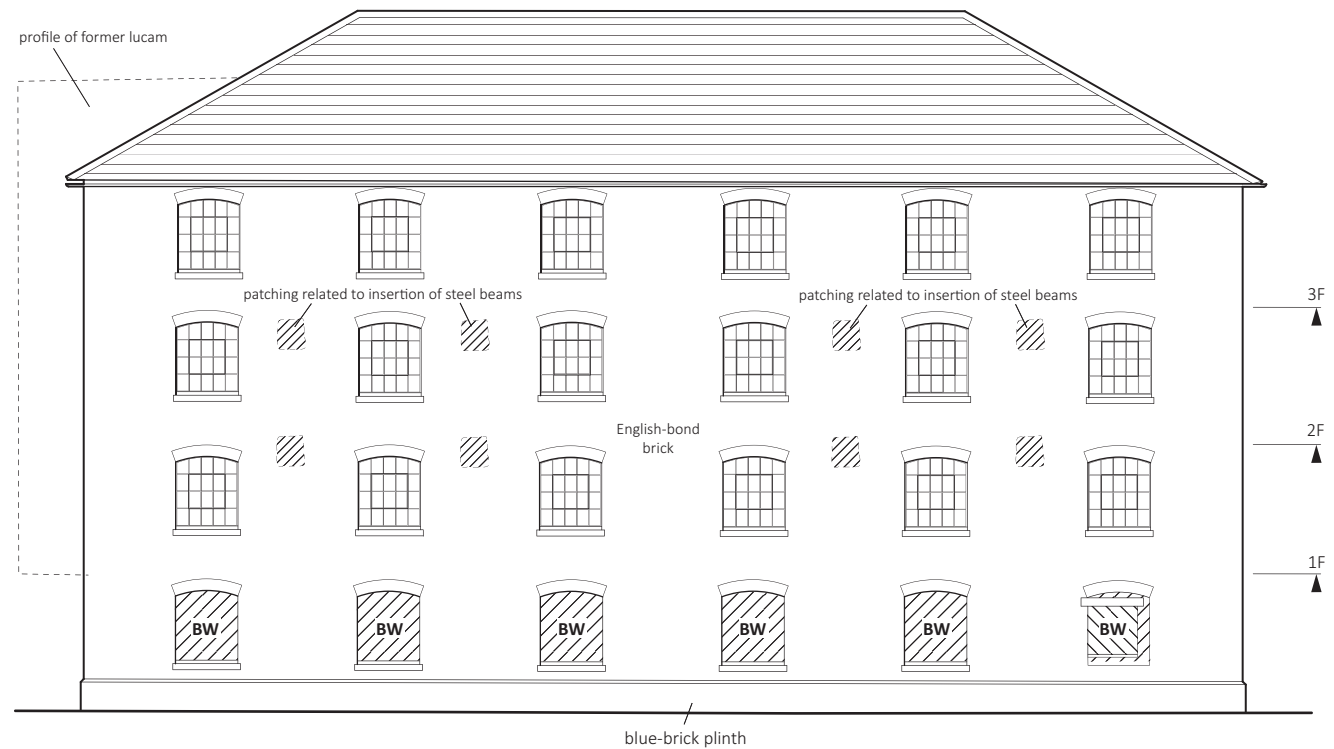


(a) East elevation.

0 5 10m
Scale 1:150 @ A4

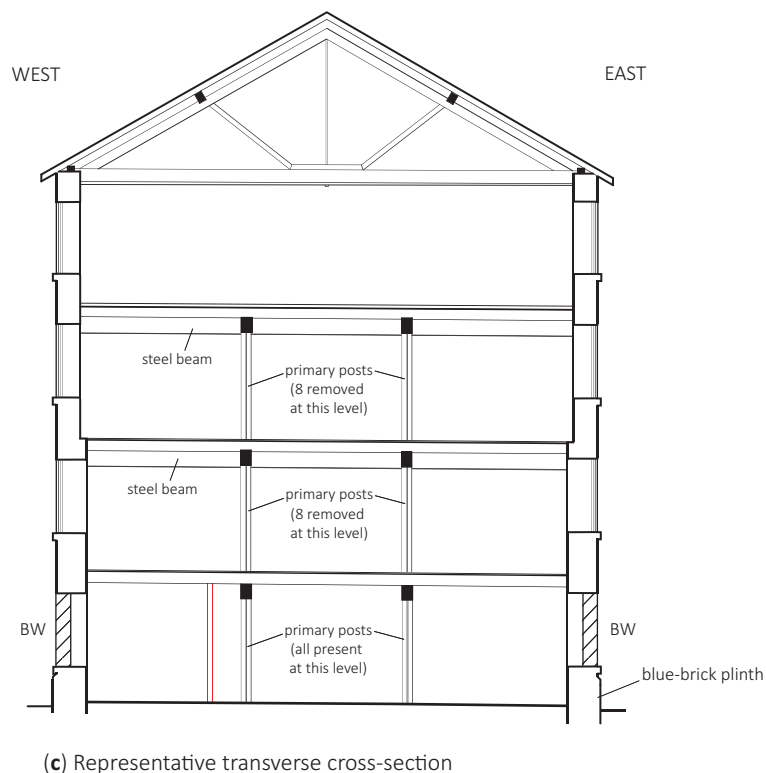
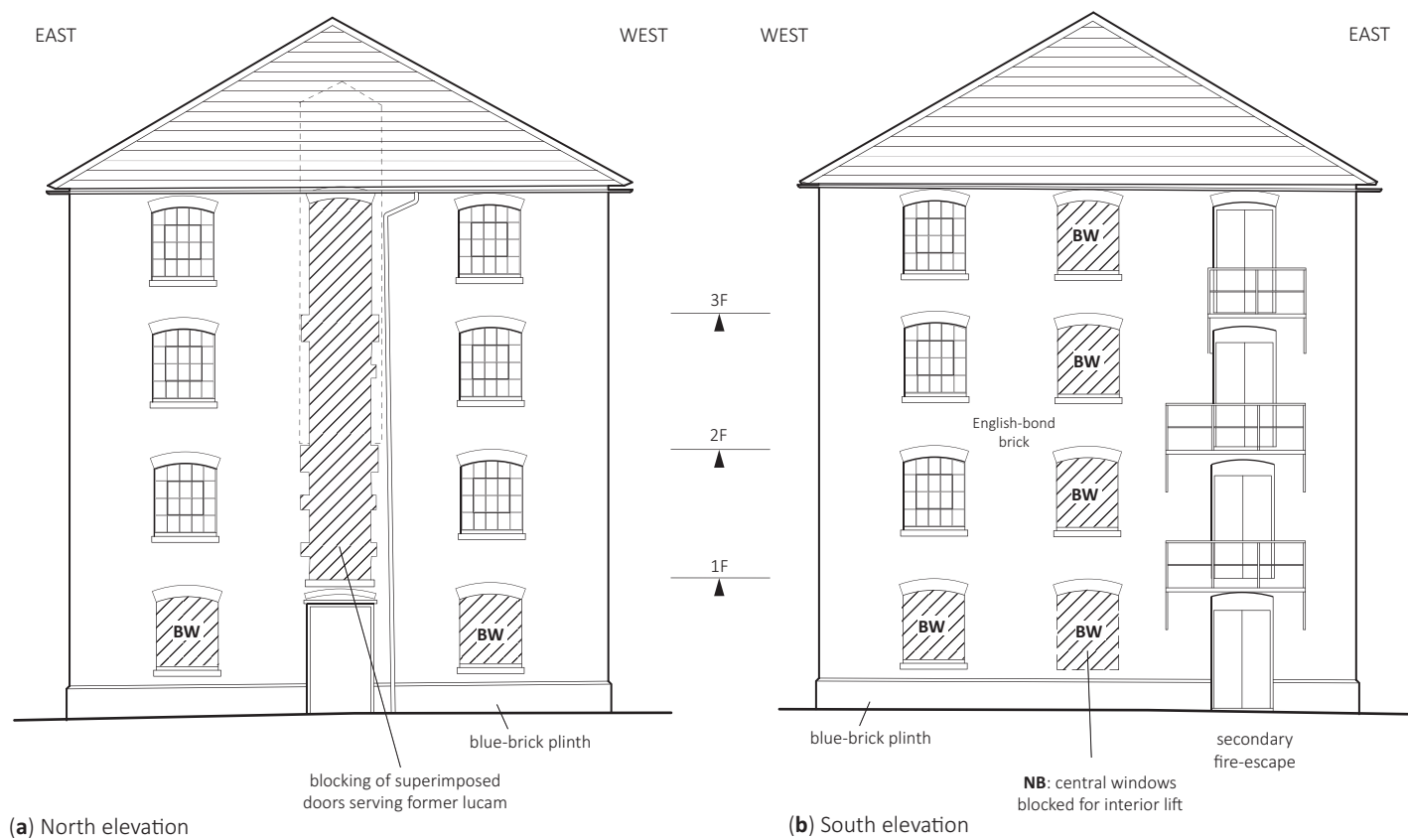
NORTH

SOUTH



(b) West elevation.

NB: for illustrative purposes only, **do not scale** from this drawing

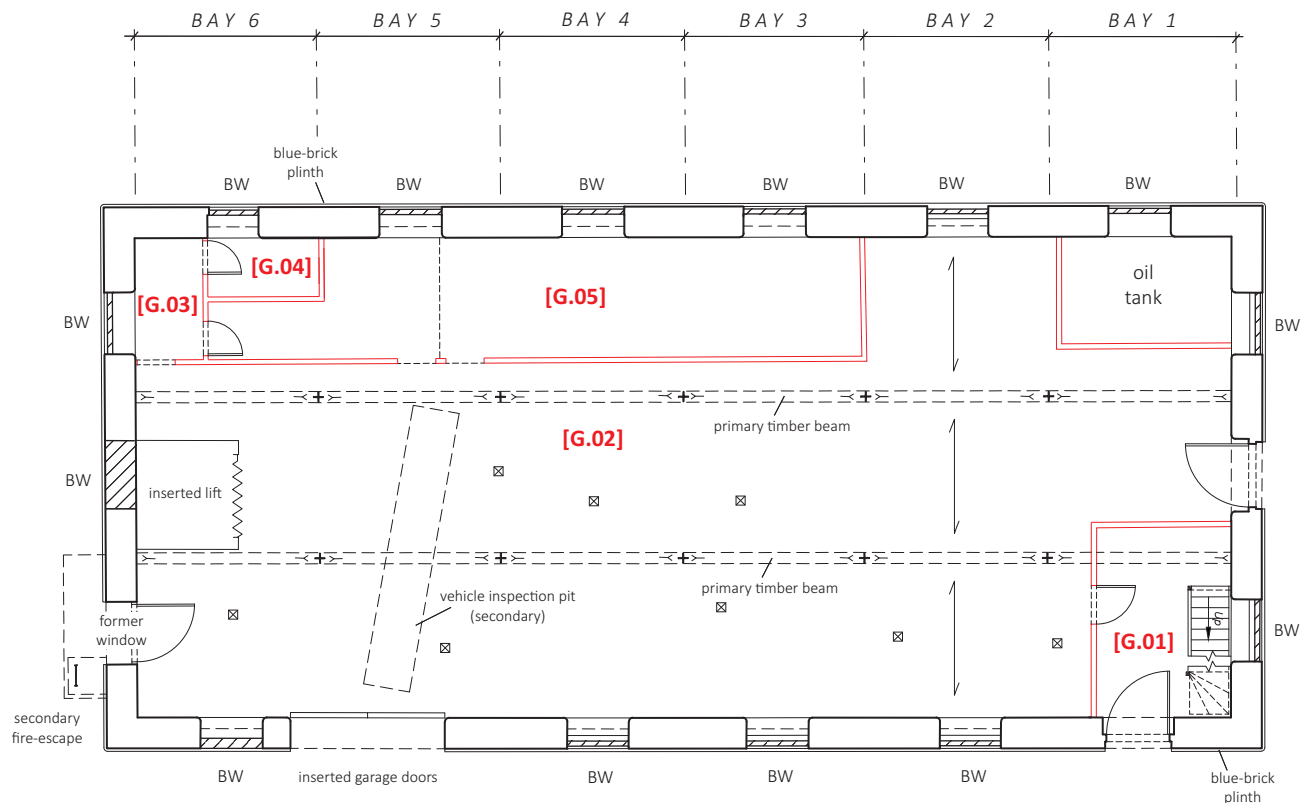


**Former Hill and Evans Vinegar Works
Lowesmoor, St Martin's Gate, Worcester**

Figure 15: Building A, Granary; north and south elevations, transverse cross-section

(Based on Laser Surveys Drawing No. T 5578/5 Rev. 0 of March 2007)

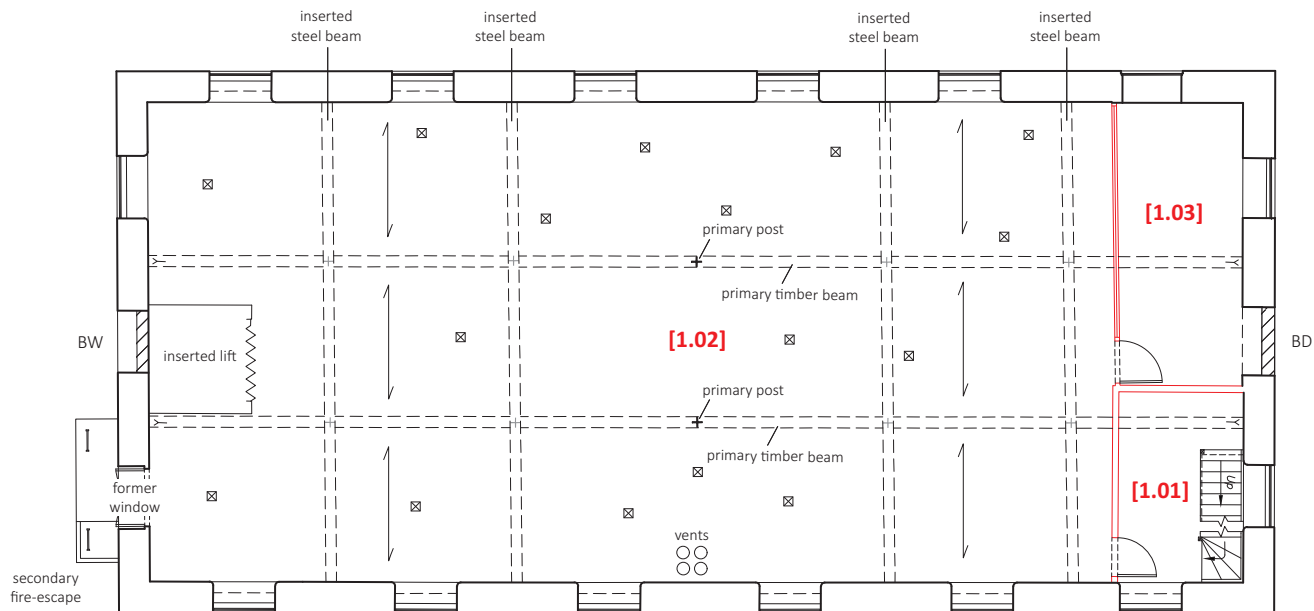
NB: for illustrative purposes only, **do not scale** from this drawing



(a) Ground floor plan.

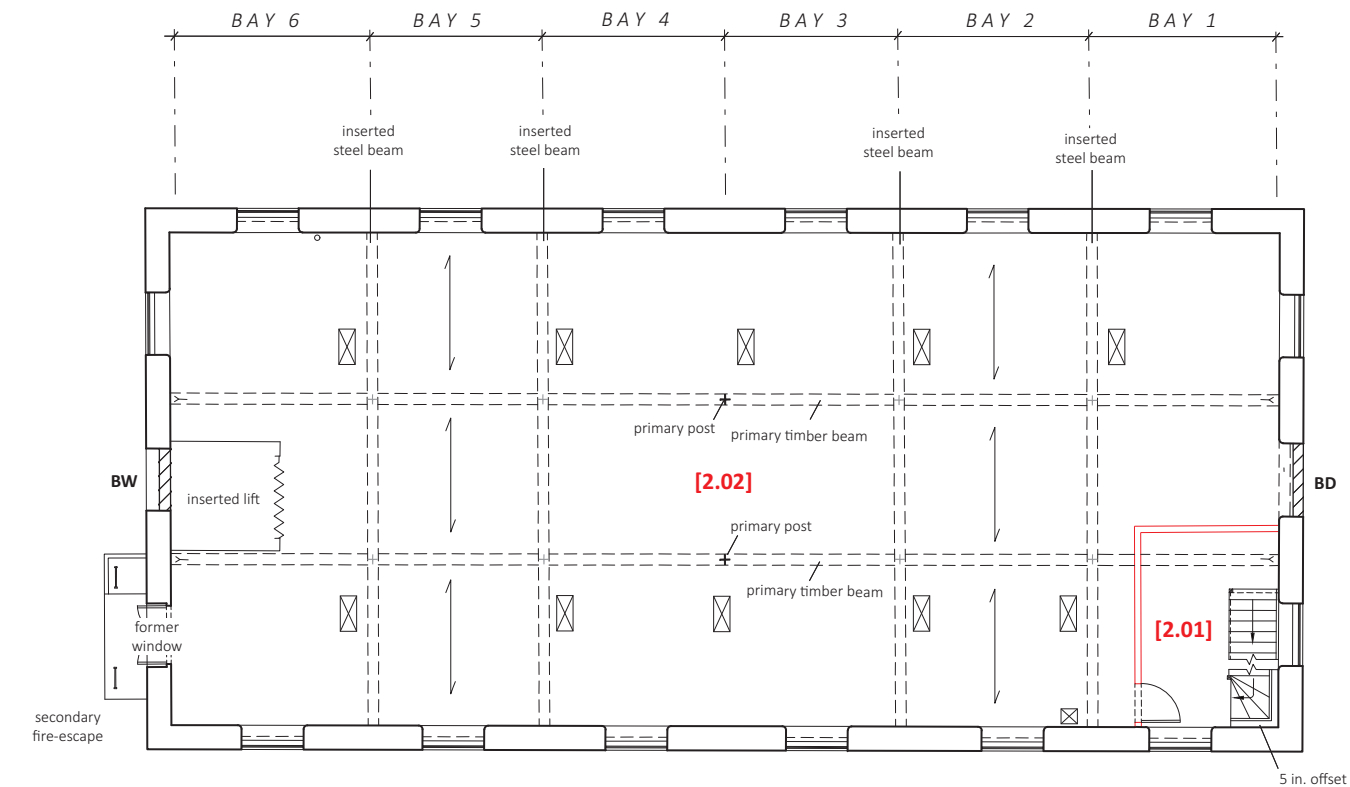
- KEY**
- BW blocked window
 - BD blocked door
 - ☒ chute over
 - + primary post removed

0 5 10m
Scale 1:150 @ A4



(b) First floor plan.

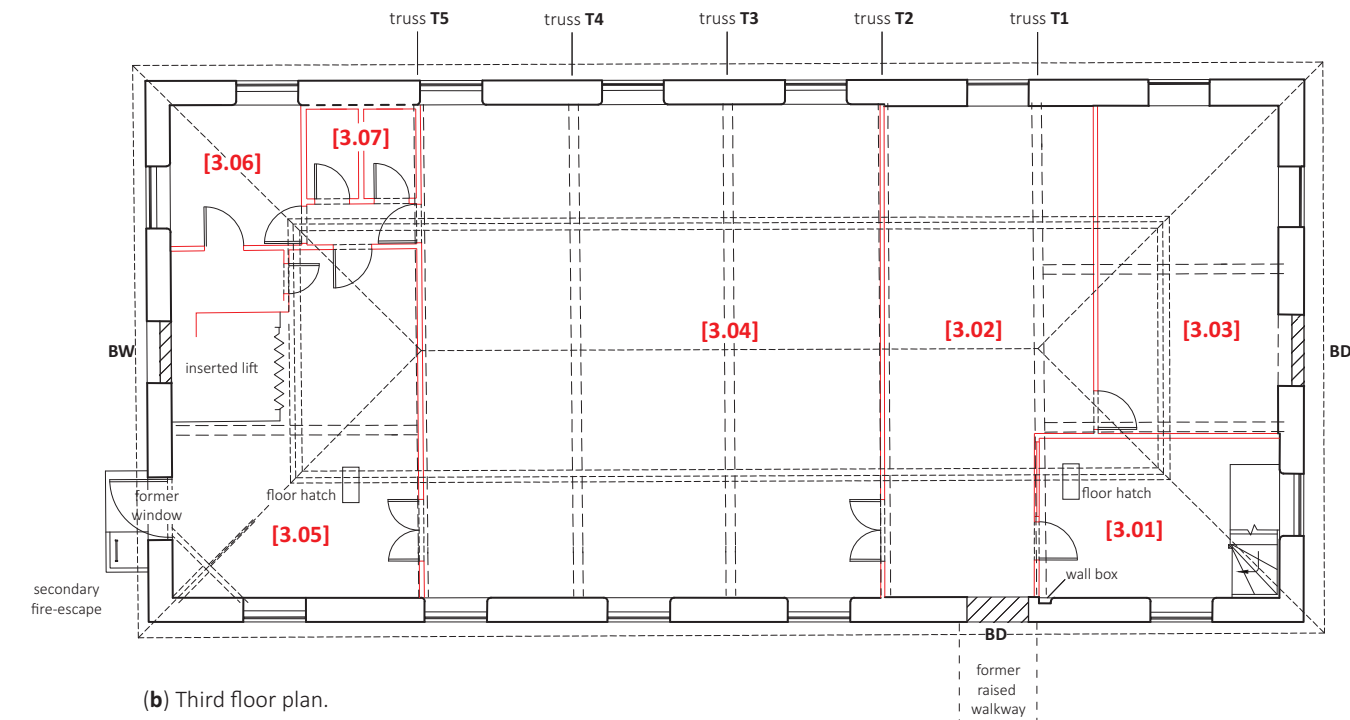
NB: for illustrative purposes only, **do not scale** from this drawing



(a) Second floor plan.

- KEY**
- BW blocked window
 - BD blocked door
 - ☒ chute over
 - + primary post removed

0 5 10m
Scale 1:150 @ A4

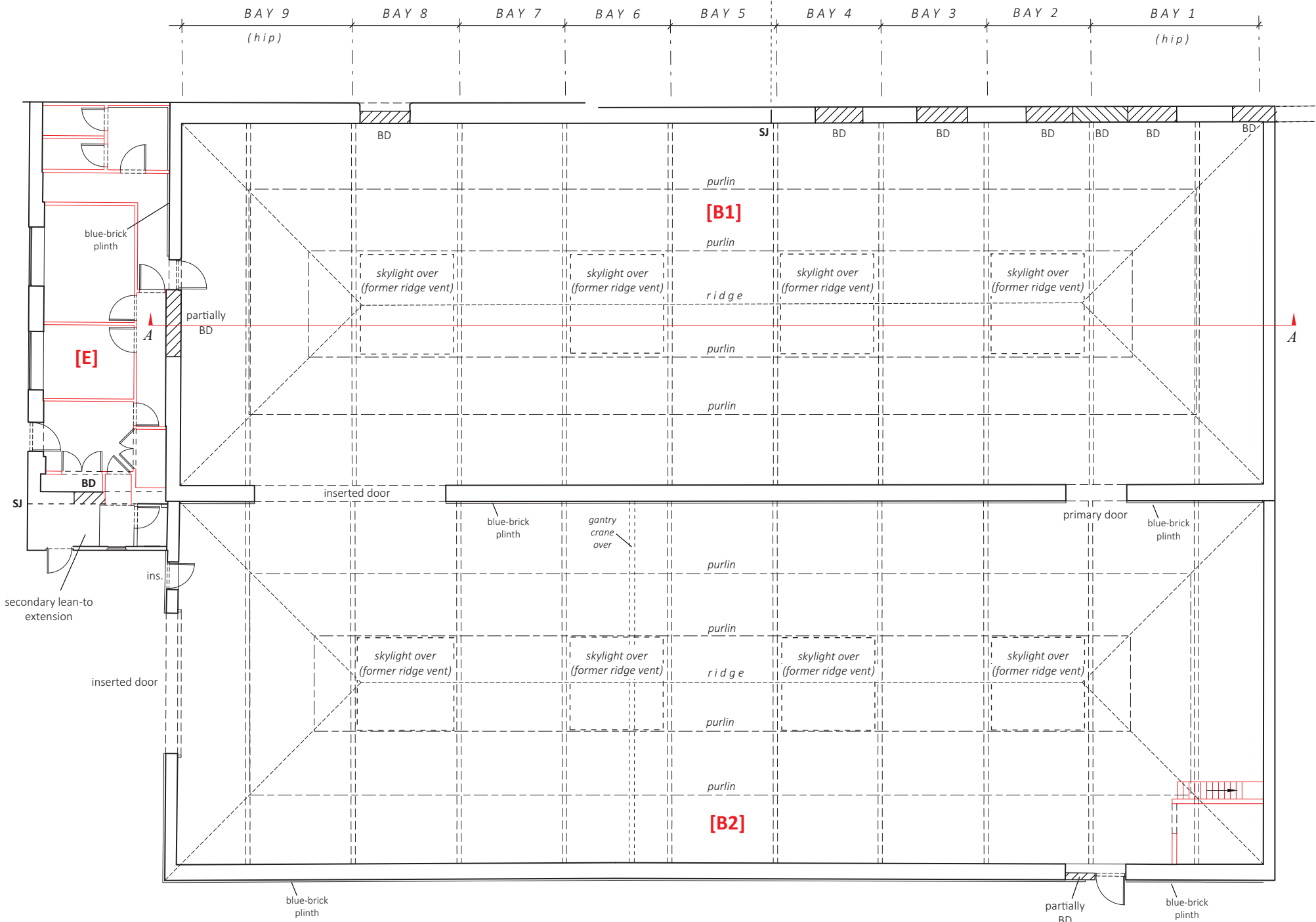


(b) Third floor plan.

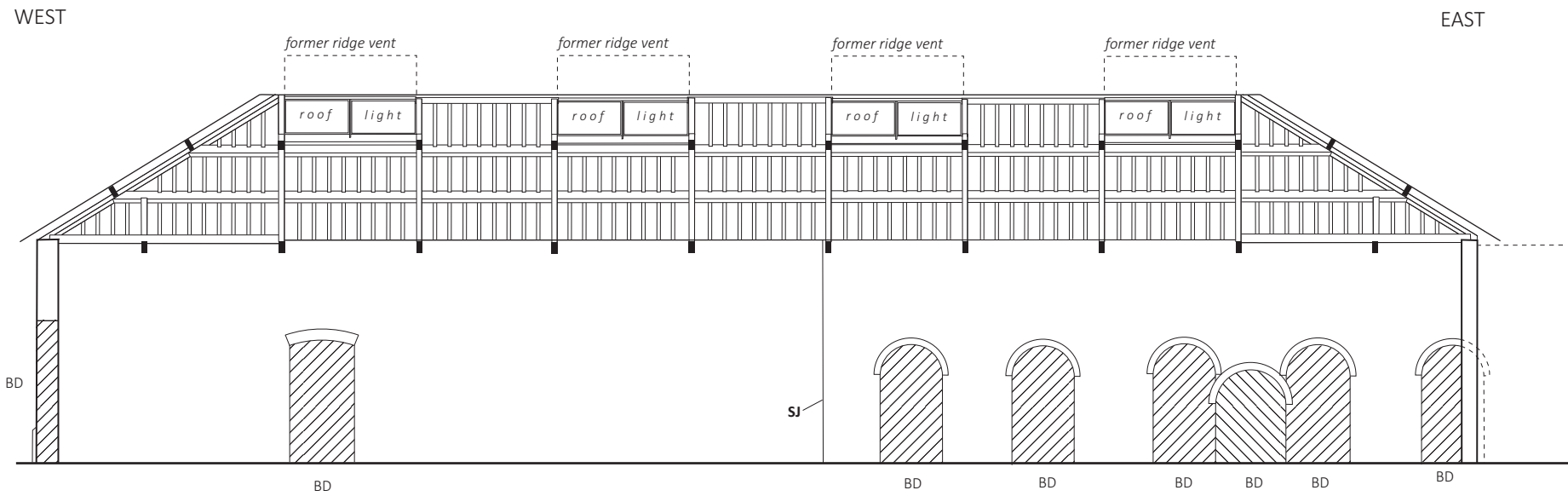
NB: for illustrative purposes only, do not scale from this drawing



NB: straight joint aligns with building 31/32a
on undated plan (Figure 11)

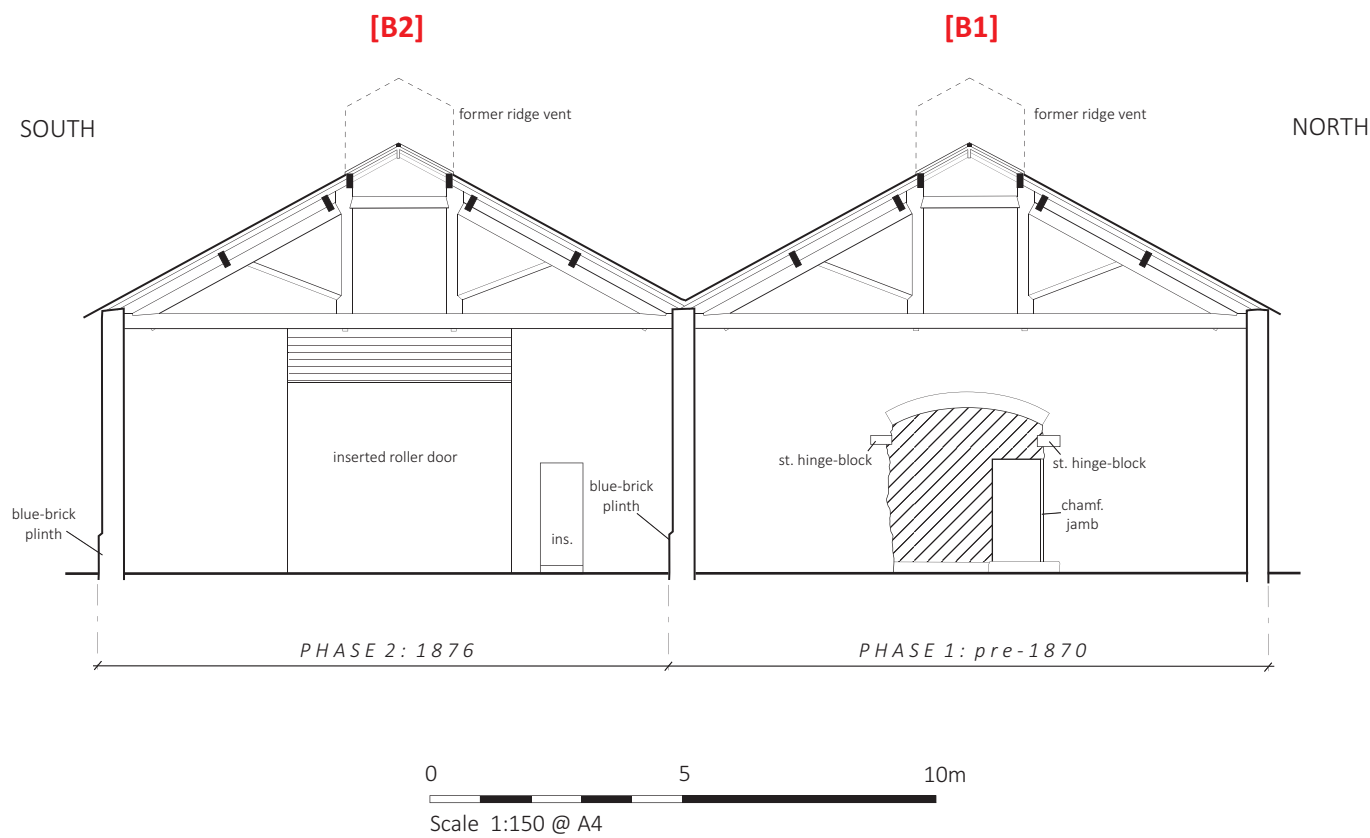


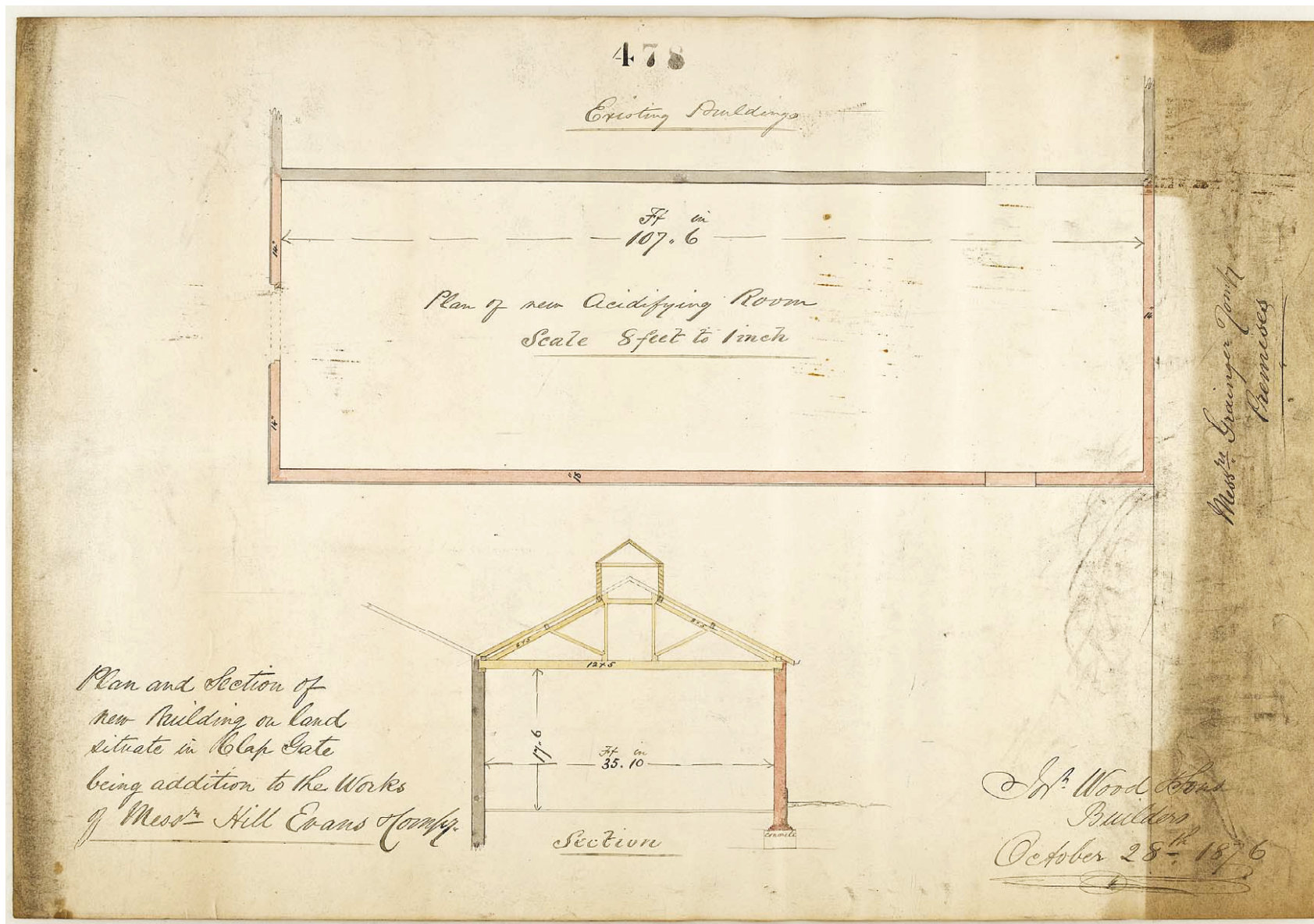
(a) Ground plan.



(b) Longitudinal cross-section of northern acidifying house at A-A

NB: for illustrative purposes only, do not scale from this drawing



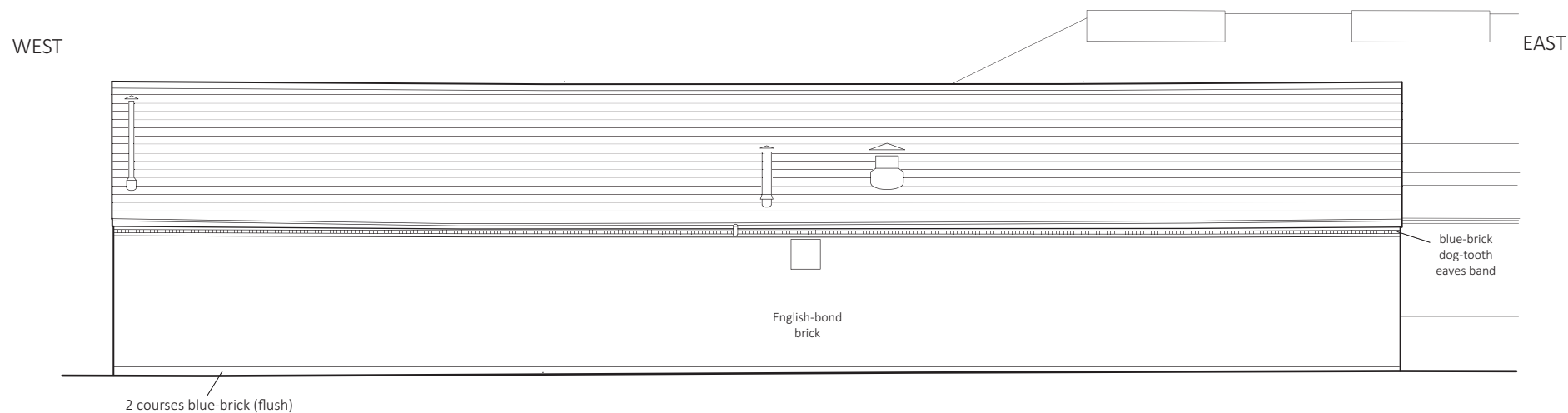


**Former Hill and Evans Vinegar Works
Lowesmoor, St Martin's Gate, Worcester**

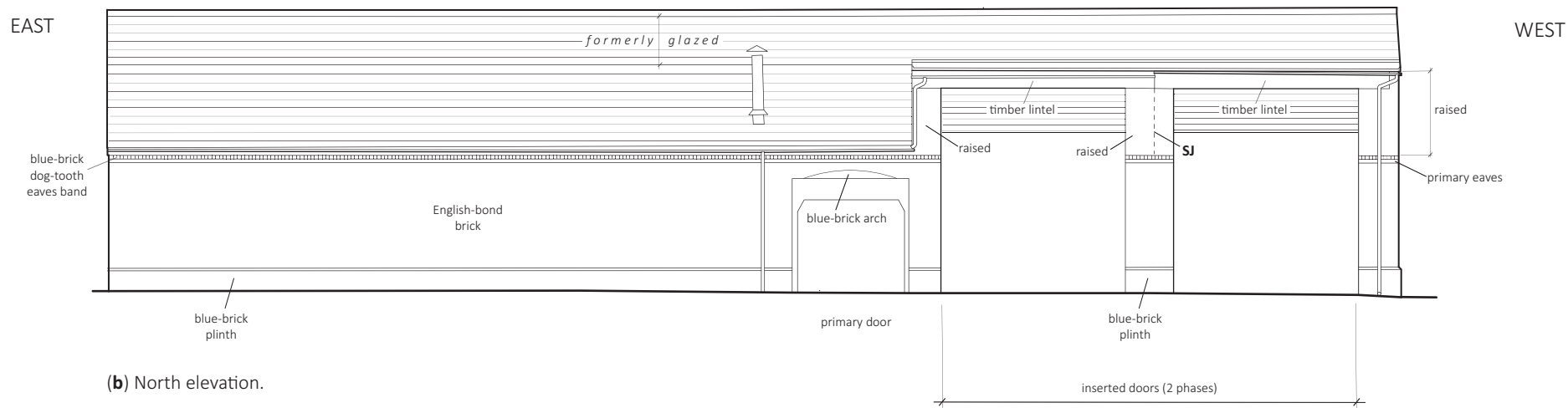
Figure 20: Planning application drawings re. Building B (acidifying shed), 28th October 1876

(WAAS BA 10827, ref. b.496.5, Planning Application No. 478;
Worcester City Archive Collection, reproduced by permission)

NB: for illustrative purposes only, do not scale from this drawing



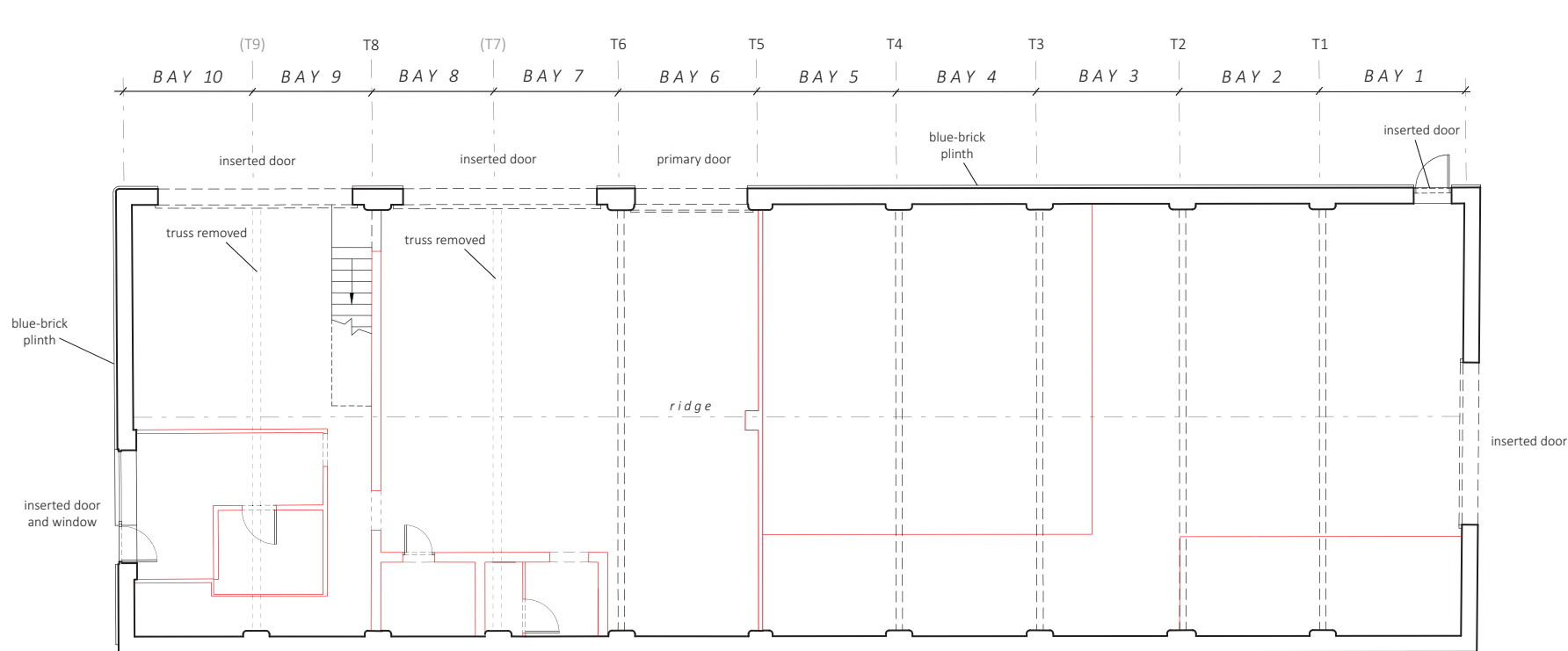
(a) South elevation.



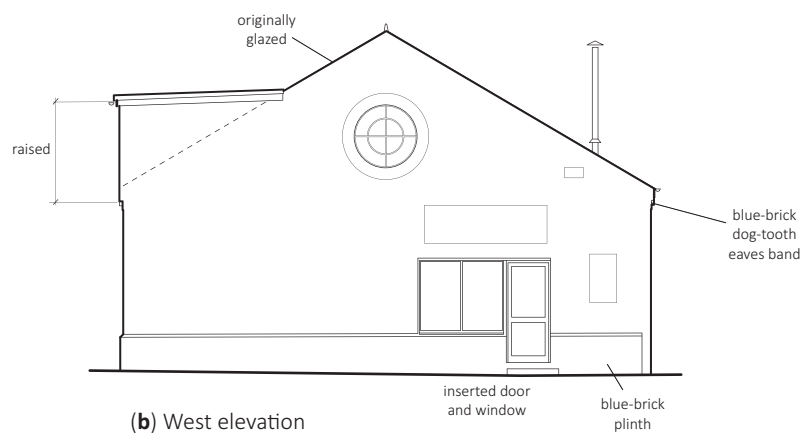
(b) North elevation.

0 5 10m
Scale 1:150 @ A4

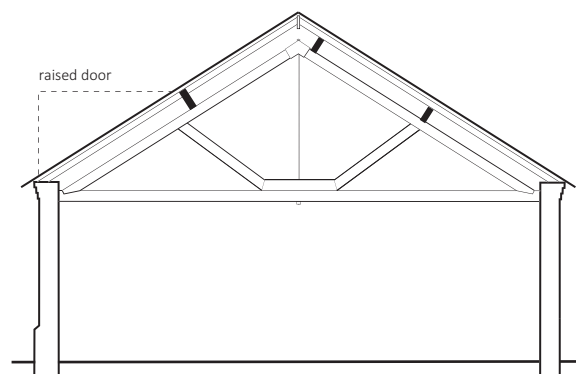
NB: for illustrative purposes only, do not scale from this drawing



(a) Ground plan.



(b) West elevation



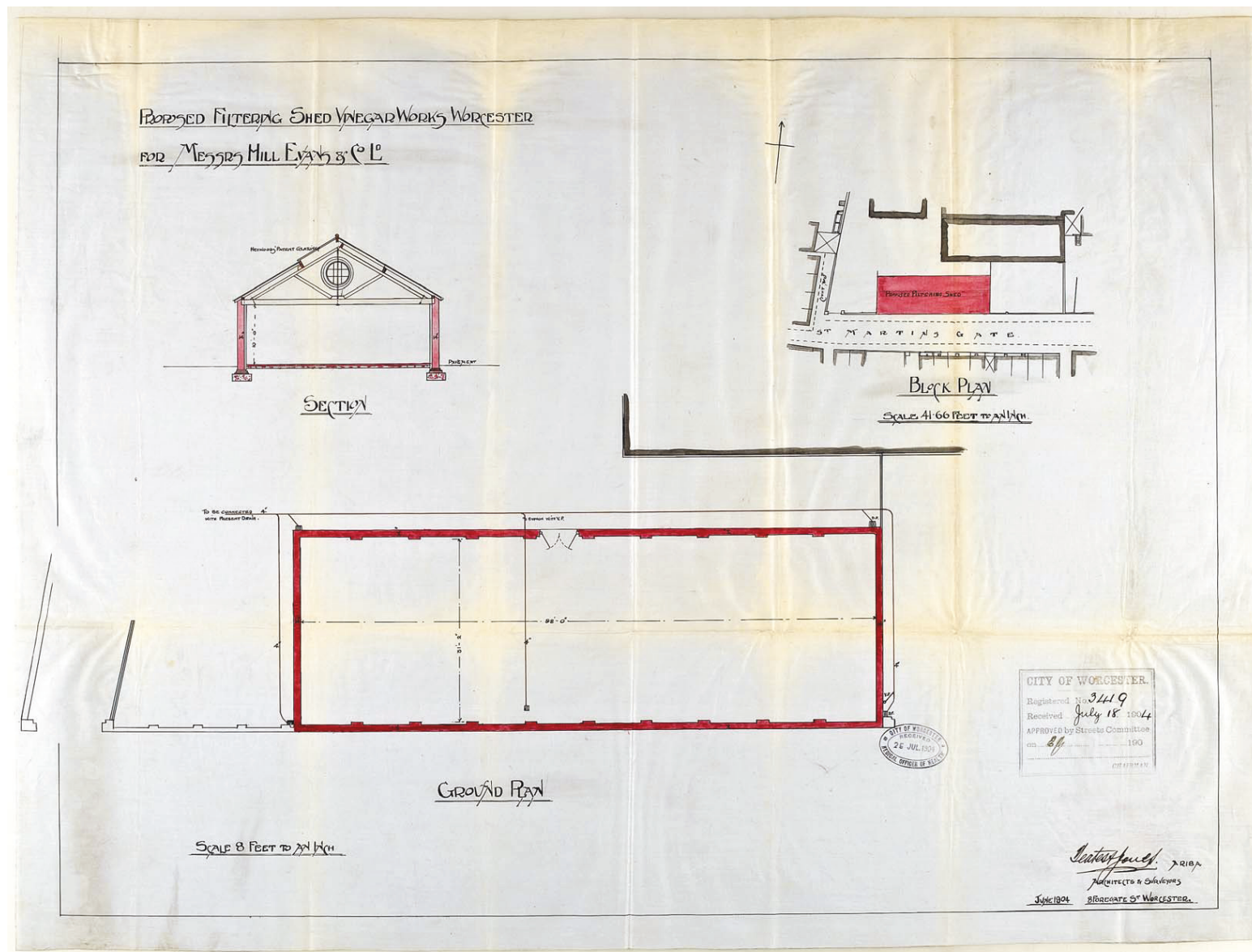
(c) Transverse cross-section

0 5 10m
Scale 1:150 @ A4

Former Hill and Evans Vinegar Works Lowesmoor, St Martin's Gate, Worcester

Figure 22: Building C, Filtering Shed; ground plan, west elevation and cross-section

(Based on Laser Surveys Drawing No. T 5578/4 Rev. 0 of March 2007)

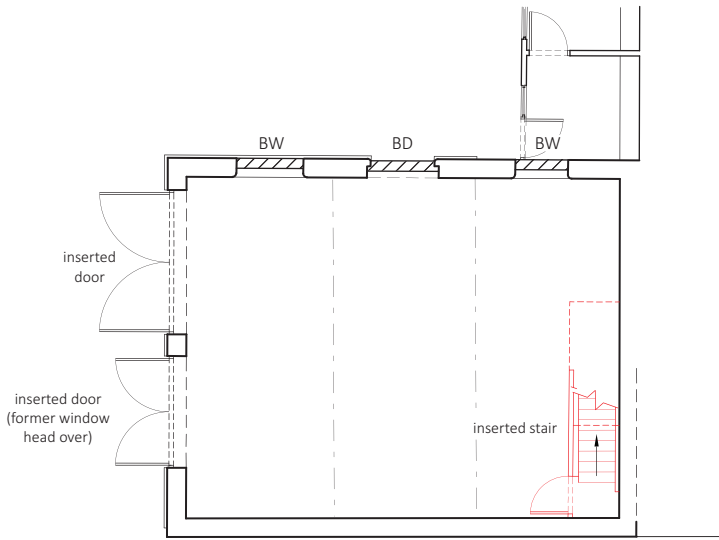


**Former Hill and Evans Vinegar Works
Lowesmoor, St Martin's Gate, Worcester**

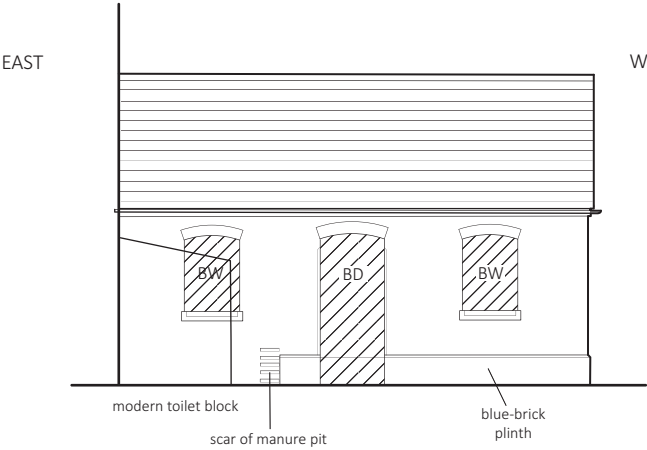
Figure 23: Planning application drawings re. Building C (filtering shed), 18th June 1904

(WAAS BA 10465, ref. b.496.5, Planning Application No. 3419;
Worcester City Archive Collection, reproduced by permission)

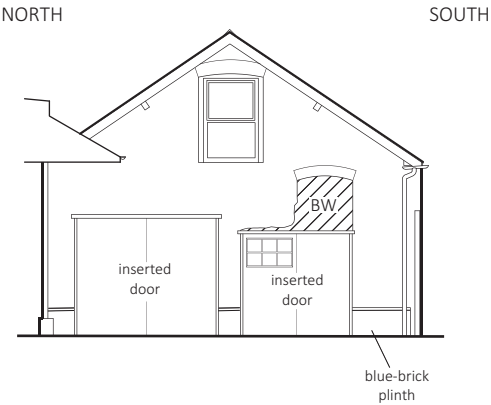
NB: for illustrative purposes only, **do not scale** from this drawing



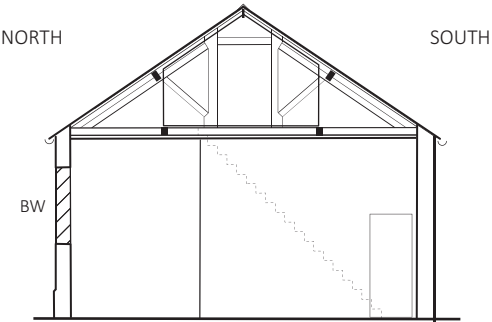
(a) Ground plan



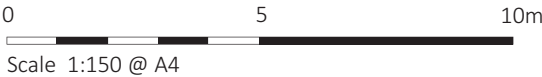
(b) North elevation



(c) West elevation

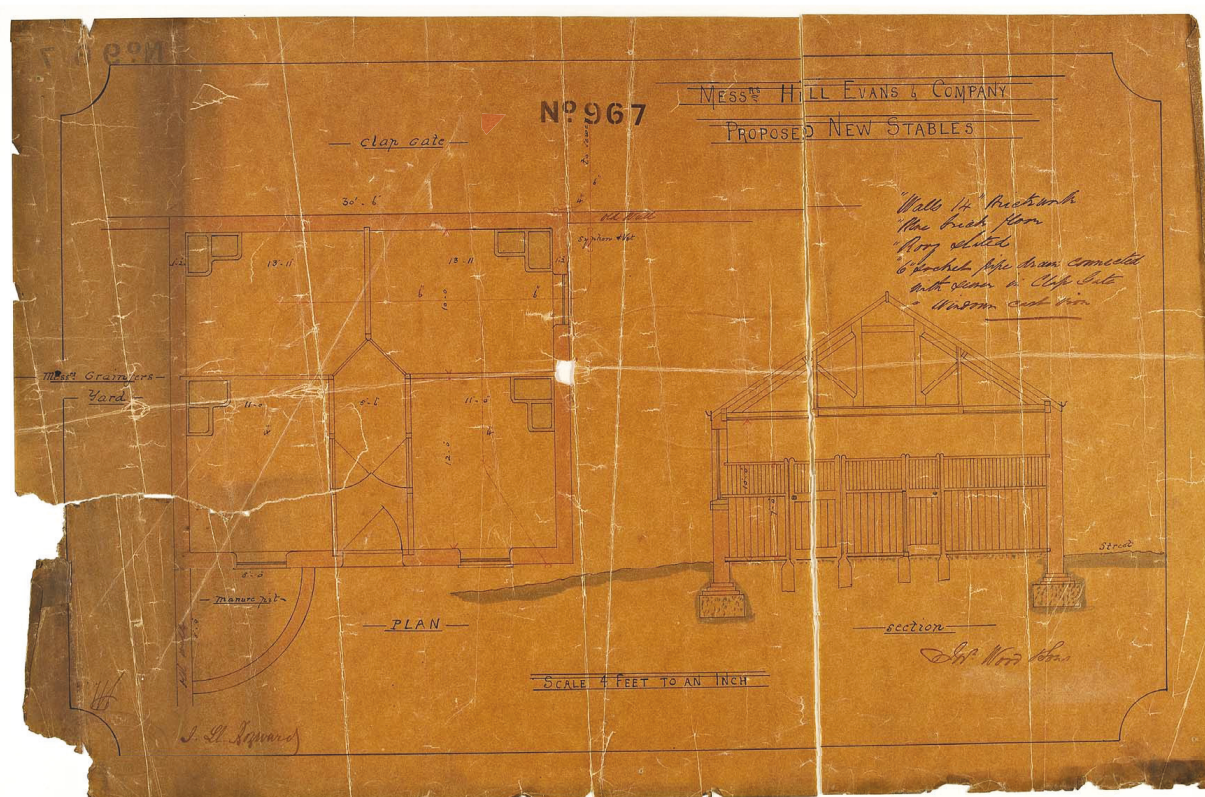
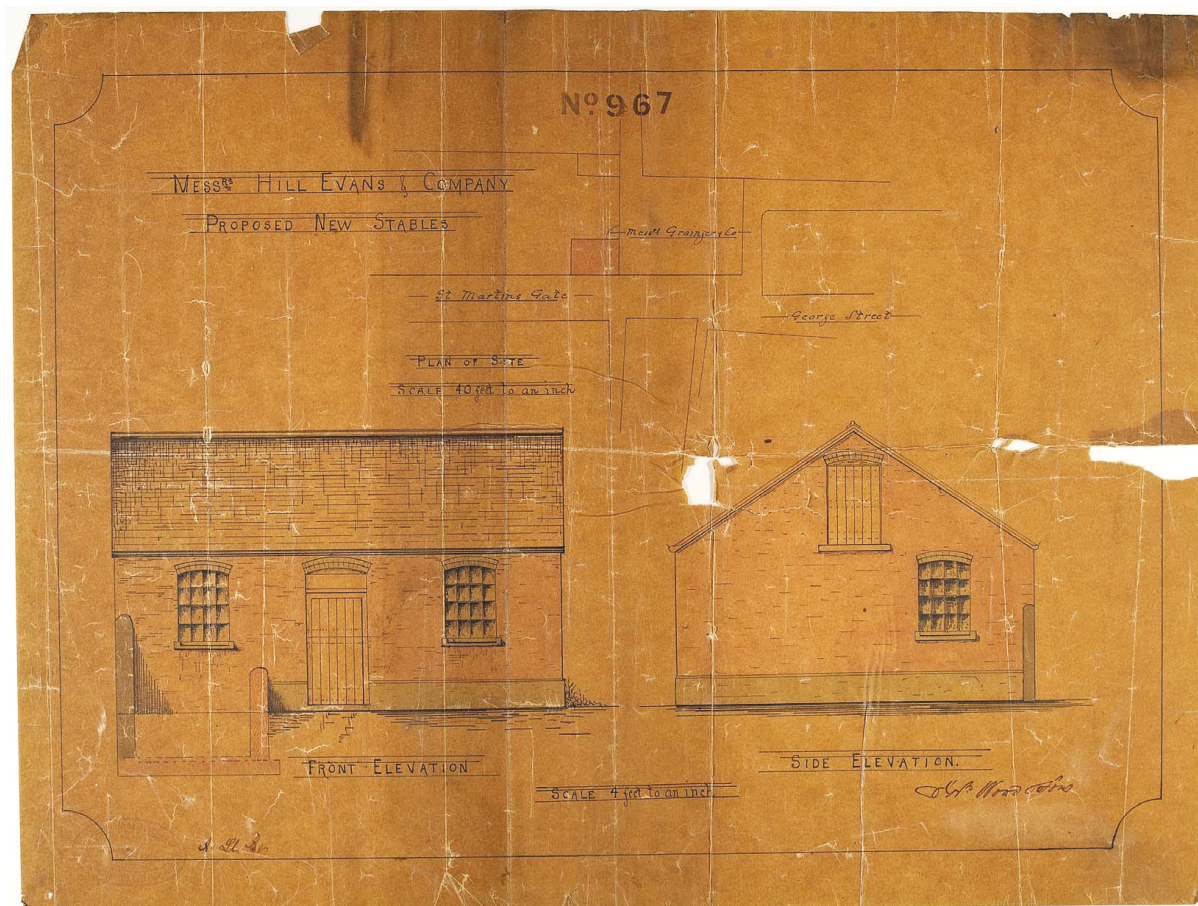


(d) Transverse cross-section



**Former Hill and Evans Vinegar Works
Lowesmoor, St Martin's Gate, Worcester**

Figure 24: Building D, Stables; plan, elevations and transverse cross-section
(Based on Laser Surveys Drawing No. T 5578/2 and /4, Rev. 0 of March 2007)



Former Hill and Evans Vinegar Works
Lowesmoor, St Martin's Gate, Worcester

Figure 25: Planning application drawings re. Building D (stables), 19th January 1885

(WAAS BA 10465, ref. b.496.5, Planning Application No. 967;
Worcester City Archive Collection reproduced by permission)



Plate 1: Panoramic view of site from south with recorded building labelled. Fermentation Shed and New Filling Room to centre background.



Plate 2: Granary; general view from south-east.



Plate 3: Granary; general view from north-west.



Plate 4: Granary; north elevation with superimposed blocked doorways to centre, formerly opening onto external lucam (see Figure 12b).



Plate 5: Granary; south elevation with secondary fire-escape stair. Central windows blocked for insertion of interior lift.



Plate 6: Typical primary window detail (NB: repaired cill).



Plate 7: Blocked GF window and blue-brick plinth.



Plate 8: Inserted garage doors at south end of east elevation.



Plate 9: Principal primary door at north end of east elevation.



Plate 10: Blocked door at 3F level, east elevation formerly serving raised walkway to adjacent range.

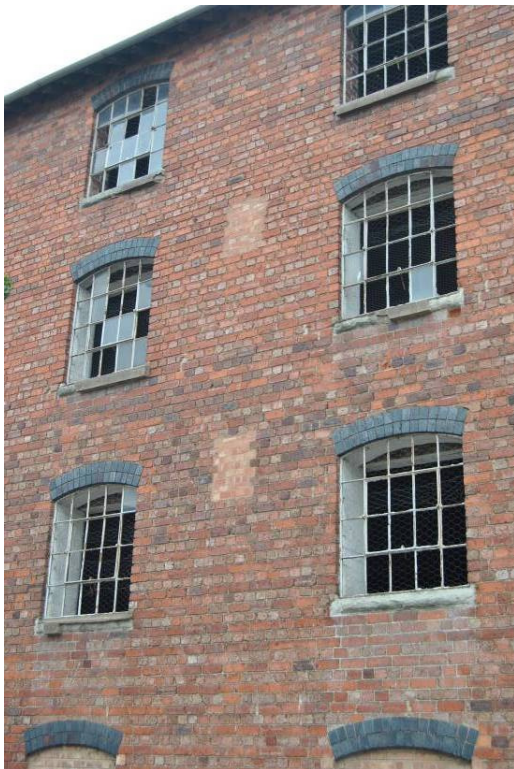


Plate 11: Areas of patching at bay intervals evidence insertion of secondary steel beams.



Plate 12: Ground floor looking north.



Plate 13: Detail of cross-section stanchion; **NB:** inserted blockwork walls beyond.



Plate 14: Head of stanchion with butt-jointed, timber longitudinal beam, strapped and bolted.



Plate 15: Studwork enclosing stair, with primary door to exterior (left) at base of lucam.



Plate 16: Inserted brickwork enclosing oil tank at north-west corner of ground floor.



Plate 17: Stair rises at north-east angle (GF-1F).



Plate 18: Stair rises at north-east angle (1F-2F).



Plate 19: First floor level looking south-west.



Plate 20: Second floor level looking north-east.



Plate 21: 1F stanchion removed for introduction of transverse steel beam.



Plate 22: Surviving primary stanchion (1F).



Plate 23: Detail of cutting through of primary longitudinal beam for insertion of transverse steels.



Plate 24: Plain 2-inch fillet skirting detail.



Plate 25: Surviving chute with steel closing plate.



Plate 26: 5-inch offset in north and east walls as walls narrow from 24in.-19in. at 2F level.



Plate 27: Ceiling hatch at 2F level.



Plate 28: Same floor hatch at 3F level.



Plate 29: Third floor level looking north-west.



Plate 30: Head of stair at 3F level.



Plate 31: Remains of high-level wall-box for shafting at Bay 2 (E) of third floor level.



Plate 32: Granary, king-bolt roof structure looking south above suspended ceiling.



Plate 33: Acidifying sheds **B1** and **B2** (centre) seen from south (Filtering Shed to foreground).



Plate 34: Acidifying Sheds, west elevation looking north-east **B1** (pre-1870) to left, **B2** (1876) to right, Fermenting Shed to background.



Plate 35: Blind south elevation of B2.



Plate 36: Shed B1 looking west.



Plate 37: Shed B1 looking east.



Plate 38: Full-height straight joint and blocked door in north wall of B1 (Bay 4/5).



Plate 39: Sequence of blocked doorway openings in north wall of **B1** (east end).



Plate 40: Blocked door at NE angle of **B1**, abutted by east wall.

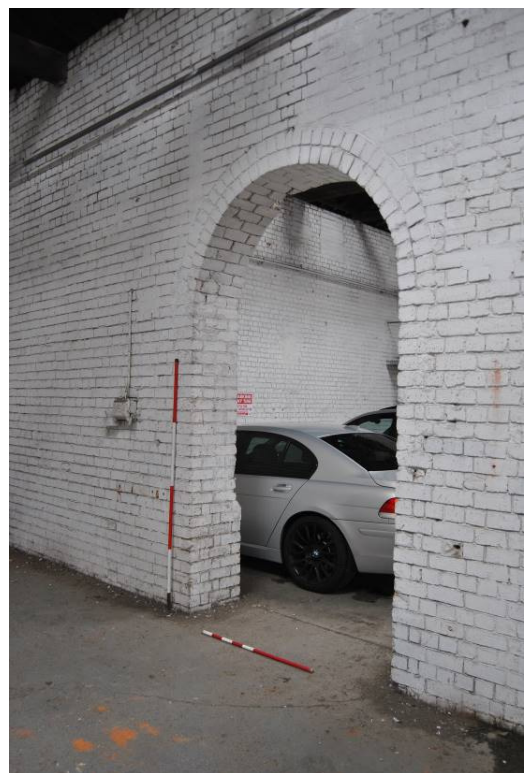


Plate 41: Primary door at east end, south wall **B1**.



Plate 42: Partially blocked doorway in western gable of **B1**, note stone hinge blocks and original chamfered jamb to right.



Plate 43: Wide inserted door between **B1** and **B2**.



Plate 44: Shed **B2** looking east.



Plate 45: Queen-post roof structure over B2 looking west.



Plate 46: Inserted roller door to west end, B2.



Plate 47: Primary door (partly blocked) and inserted store with raised platform (B2, SE angle).



Plate 48: Filtering Shed C, looking north-east, NB: lack of blue-brick plinth to street elevation.



Plate 49: Detail of chamfered blue-brick plinth.



Plate 50: Detail of blue-brick dog-tooth eaves band.



Plate 51: Filtering Shed, east elevation.



Plate 52: Oblique view of north-west angle; NB: raised roller door entrances to Bays 7-10.



Plate 53: Two-part cladding of northern roof-slope; upper section originally glazed (see Figure 23).



Plate 54: Straight-joint in brickwork of raised doorheads indicating two-phase development.



Plate 55: North elevation, primary doorway at Bay 6.



Plate 56: Roof truss T6, compare granary (Plate 37); NB: renewed rafter to upper north slope (left), originally glazed.



Plate 57: Bays 1/2 looking west.



Plate 58: Detail of edge-laid, herring-bone blue-brick floor (Bays 1/2).



Plate 59: Bays 6/7 looking south-west.



Plate 60: Bays 9/10 looking south-east.



Plate 61: Stables D; south and west elevations, oblique view looking north-east.



Plate 62: North elevation (oblique).

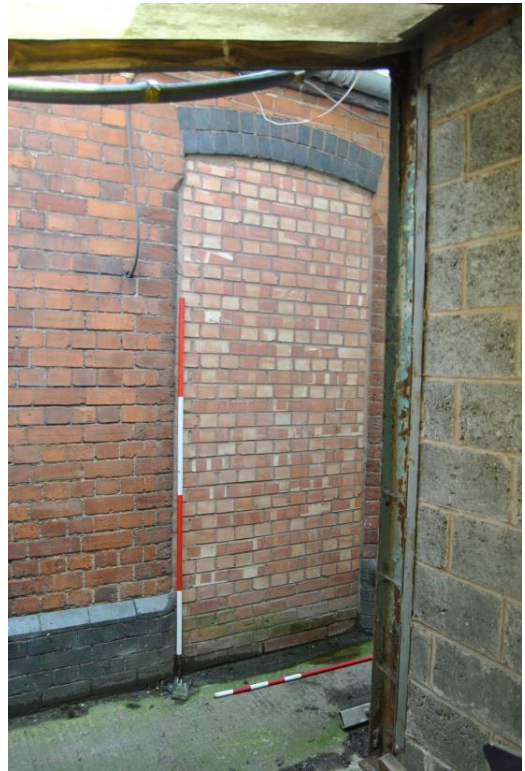


Plate 63: North elevation; blocked door.

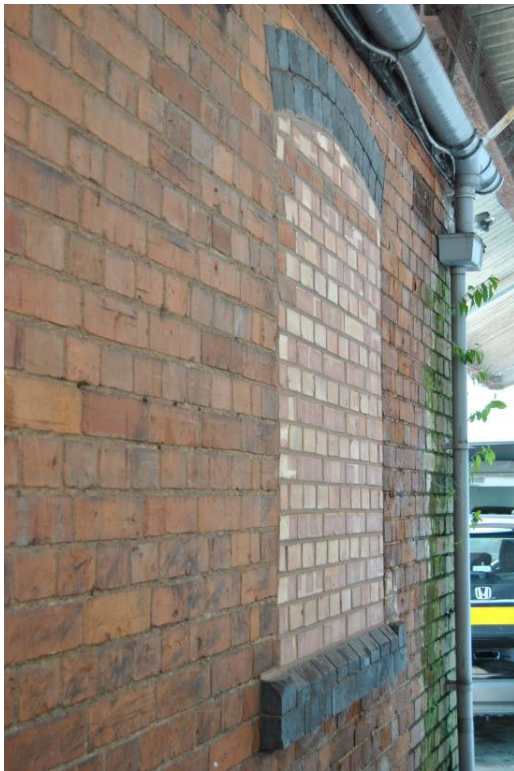


Plate 64: Blocked window.



Plate 65: Plinth east of door terminates to respect former manure pit (keyed in brickwork) – see Figure 25b.



Plate 66: Stables, west elevation.



Plate 67: Double-header arch of former window,
behind signage boards (see Figure 25a).

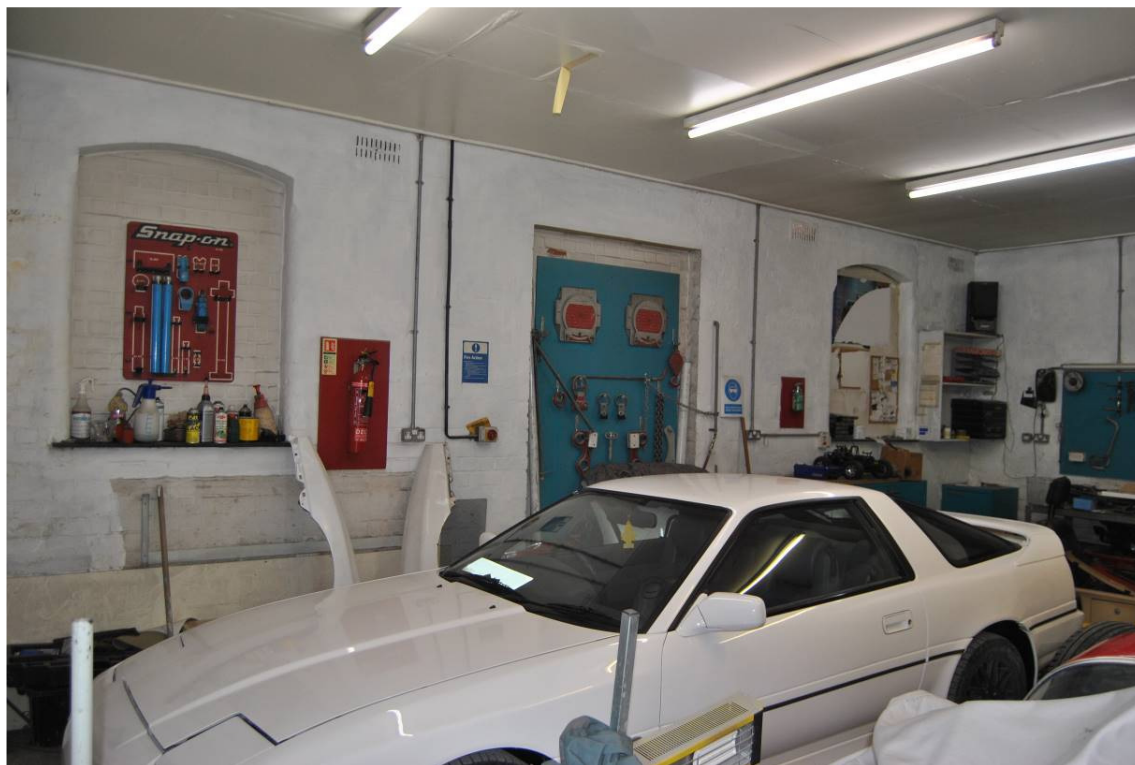


Plate 68: Interior of stables (GF) looking north-east.



Plate 69: Interior of stables (1F) looking west.



Plate 70: Infill block E looking north-east (NB: straight joint in west wall of Acidifying Sheds B1/2 behind).



Plate 71: Representative interior.

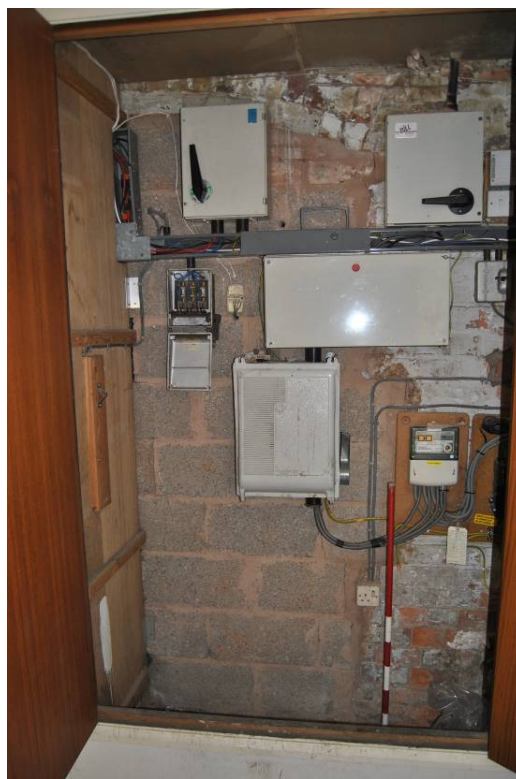


Plate 72: Blocked doorway (brick head, breeze-blocking) in south wall (back of cupboard).



Plate 73: Chamfered plinth of **B1** west wall, visible in corridor of infill block **E**.



Plate 74: Modern toilet block and covered area between Buildings **D** and **B2**.



Plate 75: Modern pent-roofed shed partly covering yard area between Building s **C**, **D** and **B2**.

APPENDIX A: Written Scheme of Investigation (WSI; Tyler 2015)

FORMER HILL, EVANS AND Co. WORKS

LOWESMOOR TRADING ESTATE, ST MARTIN'S GATE, WORCESTER

Historic Building Record

Planning Reference: P09D0106 (Condition 10)

1 PROJECT BACKGROUND

1.1 Introduction

- 1.1.1 The following document represents a Written Scheme of Investigation (WSI) for an Historic Building Record to be undertaken in respect of a number of surviving buildings of the former Hill, Evans and Co. works, at Lowesmoor Trading Estate, St Martin's Gate, Worcester (centred on former NGR SO 85300 55000).
- 1.1.2 Hill, Evans and Co. was founded in 1830 and was to become, at one time, the world's largest producer of vinegar producing two million gallons of malt vinegar a year.¹ The works closed in 1965; the surviving buildings are currently used for light industrial and commercial purposes.
- 1.1.3 The proposed development site, which extends to c.0.42 ha, is located to the eastern side of Worcester City centre, to the north side of St Martin's Gate, within an 'island' formed by City Walls / Silver Street, St Martin's Gate, Lowesmoor and Pheasant Street (see aerial photograph below), historically almost fully occupied by the buildings of the Hill & Evans works which extended to a total of six acres at its peak. The site has been the subject of a previous Conservation Statement, prepared by CgMs Consulting (CgMs 2006), which identified no designated heritage assets within the site boundary and concluded that, with the exception of the former granary, none of the surviving late-19th or early-20th century buildings were of any tangible architectural or historical interest. The remaining buildings on the site were assessed as being basic, utilitarian structures, 'intrinsically unimportant' with any significance having been 'robbed by modern alterations'.
- 1.1.4 However, although not statutorily listed, the former vinegar works buildings are included as a group on WCC's 'List of Buildings of Local Significance in Worcester'² and, being also located within the Lowesmoor Conservation Area (WCC CA13),³ they clearly represent 'non-designated heritage assets' under the terms of National Planning Policy Framework (NPPF; DCLG 2012).⁴

1.2 Planning Background

- 1.2.1 A planning application (ref. **P09D0106**)⁵ and Conservation Area consent application was submitted to Worcester City Council on 13th March 2009 in respect of the mixed-use redevelopment of the Lowesmoor site. Specifically the application involves the demolition of a series of utilitarian, single-storey, late-19th and early-20th-century brick buildings to facilitate the erection of a four-storey building comprising 4 no. ground floor class A3 units and a 128 bed hotel on the upper floors, and the conversion of the granary building to no.1 ground floor class A1

¹ http://news.bbc.co.uk/local/herefordandworcester/hi/people_and_places/history/newsid_8994000/8994975.stm

² <http://www.worcester.gov.uk/documents/10499/47612/Buildings+of+Local+Significance+List.pdf/bb7ec3a8-407e-4cde-b99c-751d71dfc27a>

³ <http://www.worcester.gov.uk/documents/10499/47612/Conservation+Area+Table.pdf/389a1126-44ca-4b1f-b33f-313533a49ab4>

⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

⁵ http://planning.worcester.gov.uk/OcellaWeb/viewDocument?file=dv_pl_files\P09D0106%2FAMended+description.pdf&module=pl

retail unit with 9 self-contained flats on the upper floors. The application was approved on 3rd September 2012.⁶ The programme of Historic Building Record outlined within this document has been required by Mr James Dinn MCIfA, the archaeological officer of Worcester City Council (WCC), as a condition (condition 10) of planning consent.

1.2.2 The full wording of the condition reads as follows

'10. Archaeological Investigation – Building Recording

No development shall take place until full details of a programme of archaeological building investigation and recording have been submitted to and approved in writing by the local planning authority and the approved scheme shall be carried out as approved. The details shall include:

- i. A comprehensive archaeological building investigation and record of all buildings and structures within the development site, and;*
- ii. A watching brief on demolitions and on intrusive works to retained buildings.*

For the following reason:-

*To allow the historical and archaeological potential of the site to be realised in accordance with Policy **BE21** of the City of Worcester Local Plan 2004 and the aims and interests that the National Planning Policy seeks to protect and promote with regard to heritage assets.'*

1.3 **Requirement for Work**

1.3.1 The historic building record has been required under the terms of **Policy BE.21** of the City of Worcester Local Plan, 2004.

1.3.2 Further, paragraph 141 of National Planning Policy Framework stipulates that, any permitted development affecting a heritage asset should include the provision to record that asset and that Local Planning Authorities should:

"...require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible."

2 **AIMS AND OBJECTIVES**

2.1 The aim of the historic building record is to provide a detailed visual record of the buildings to be demolished and to generate a descriptive and illustrative account of the buildings, including a brief discussion of their origin, history and development together with a summary of their character, date and techniques of construction. The record will be broadly commensurate with a Level 3 survey as defined by English Heritage in 'Understanding Historic Buildings: A Guide to Good Recording Practice' (EH, 2006; 14, §.5.5). In the light of the proposed demolitions, the project will essentially constitute a 'preservation by record'.

⁶

http://planning.worcester.gov.uk/OcellaWeb/viewDocument?file=dv_pl_files\P09D0106%2Fdecdnot20120910104142COPY.pdf&module=pl

3 METHODOLOGY

3.1 Documentary Research

- 3.1.1 As a Conservation Statement has previously been prepared in respect of the site (CgMs 2006), no significant programme of new archival research is envisaged at this stage. However, to expand upon previous work, and to enable the recorded structures to be placed within a general historical context, a 'structure-based' assessment comprising a rapid review of readily available published and unpublished documentary source material related to the buildings held by the Worcestershire County Record Office will be made. A standard search of WCC HER will be made, to include a review of historical planning applications in respect of the site.

3.2 Historic Building Record

The historic building record will comprise three elements; drawn, photographic and written recording, as follows:

Drawn Record

- 3.2.1 Overall measured plans of the buildings under consideration will be prepared on site, using supplied architects drawings as a baseline survey. Drawings will be checked on site for accuracy and will be enhanced/annotated to show features of architectural and historical/archaeological significance (blocked doors, windows, fireplaces, straight joints, evidence for phase breaks etc.) Principal elevations, again based upon supplied base survey, will be recorded to a similar level where appropriate.

Photographic Record

- 3.2.2 The photographic survey will comprise high resolution digital coverage using a Nikon D3000 digital single lens reflex camera. The record will extend to include both general and detail shots, contextual views and all accessible exterior and interior elevations, visible structural and decorative details (interior and exterior), general interior views of principal spaces. Where possible, photographs will include graded photographic scales. All photographs will be recorded on *pro-forma* recording sheets detailing subject, orientation, photographer and date.

Written Record

- 3.2.3 A written account of the buildings will be made as free text to accompany the drawn and photographic records. The recording will cover the general and detailed arrangements of the buildings, together with the character, date, materials and techniques of construction, and a summary of their origins and historical development as evident from a non-intrusive examination.

Watching Brief

- 3.2.4 An ongoing watching brief will be maintained upon demolitions and intrusive works to retained buildings as appropriate, so as to allow detail to be added to the base record outlined at §.3.2.1-3 above (for example, through the removal of abutting structures etc.).

4 REPORTING

- 4.1 Upon completion of supplementary archival research and associated fieldwork, a summary of the results of the study will be presented as a fully illustrated, interpretive report. The contents of the report to be as follows:

Text

- Non-technical summary

- Introduction and site location
- Aims and objectives
- Methodology
- Historical background
- General description of the recorded buildings and their features
- Discussion and conclusion
- List of sources consulted

Figures

- Location plan and a selection of historic maps / images where relevant
- Plans, elevations and/or cross-sections (as appropriate)
- A selection of colour plates

Appendices

- Copy of project WSI
- A register of project photographs with location plan
- CD containing copy of all digital images

5 STAFFING

- 5.1 Documentary research, site assessment and recording, and report preparation will be undertaken by Mr Ric Tyler MCIfA, working on behalf of CgMs Consulting.

6 TIMETABLE

- 6.1 Subject to approval of the approach outlined in the present WSI, it is envisaged that documentary research and fieldwork will be undertaken in the week commencing 13.07.2015 or soon thereafter. A draft report will be submitted to the planning archaeologist of Worcester City Council for approval, normally within 3 weeks of completion of fieldwork, with final report to follow in due course.

7 MONITORING

- 7.1 The Planning Archaeologist of Worcester City Council will be invited to monitor the project during the course of fieldwork (**NB:** fieldwork is expected to be completed within 1-3 days maximum in accordance with the timetable set out at §.6.1 above).

8 PROFESSIONAL STANDARDS

- 8.1 The project will follow the requirements set down in the *Standard and Guidance for Historic Environment Desk-Based Assessment* (CIfA, 2014a) and *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures* (CIfA, 2014b). Recording work will conform to guidelines set down by English Heritage's *Understanding Historic Buildings: a guide to good recording practice* (EH 2006) and the Association of Local Government Archaeological Officers' *Analysis and Recording for the Conservation and Control of Works to Historic Buildings*, (ALGAO 1997).
- 8.2 The *Code of Conduct of the Institute for Archaeologists* (CIfA, 2014c) will be adhered to at all times.

9 HEALTH AND SAFETY

- 9.1 All current health and safety legislation, regulations and guidance will be complied with during the course of the project.

10 REFERENCES

Association of Local Government Archaeological Officers (ALGAO), 1997. *Analysis and Recording for the Conservation and Control of Works to Historic Buildings*.

CgMs Consulting, 2006. 'Conservation Statement in respect of Lowesmoor, Worcester'. Unpubl. document prepared for Hampton Properties. CgMs ref. ND/JF/7417.

ClfA, 2014a. *Standard and Guidance for Historic Environment Desk-Based Assessment*.

CfA, 2014b. *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures*.

ClfA 2014c. *Code of Conduct*.

Department for Communities and Local Government (DCLG), 2012. *National Planning Policy Framework*.

English Heritage, 2006. *Understanding Historic Buildings: A Guide to Good Recording Practice*.

WSI prepared by:

Ric Tyler MCIfA
06.07.15

Approved by:

James Dinn BA MCIfA
07.07.15

APPENDIX B: Register of Project Drawings

Drg. No.	Subject	Format	Scale	Date	Recorder
2015_009/01	Building B, transverse cross-section	A3, pencil on film	1:100	15.07.15	R Tyler
2015_009/02	Building C, transverse cross-section	A3, pencil on film	1:100	15.07.15	R Tyler
2015_009/03	Building A, GF plan	A4, paper print out (annotated)	1:100	16.07.15	R Tyler
2015_009/04	Building A, 1F plan	A4, paper print out (annotated)	1:100	16.07.15	R Tyler
2015_009/05	Building A, 2F plan	A4, paper print out (annotated)	1:100	16.07.15	R Tyler
2015_009/06	Building A, 3F plan	A4, paper print out (annotated)	1:100	16.07.15	R Tyler
2015_009/07	Building A, East elevation	A4, paper print out (annotated)	1:100	16.07.15	R Tyler
2015_009/08	Building A, West elevation	A4, paper print out (annotated)	1:100	16.07.15	R Tyler
2015_009/09	Building A, north and south elevations	A4, paper print out (annotated)	1:100	16.07.15	R Tyler
2015_009/10	Building B/C/D/E plan	A4, paper print out (annotated)	1:200	15.07.15	R Tyler
2015_009/11	Building C/D elevations	A4, paper print out (annotated)	1:100	15.07.15	R Tyler

APPENDIX C: Register of Project Photographs

NB: All photographs taken with Nikon D3000 digital SLR camera, 10 mega-pixels. Photo locations are illustrated on the plans on the following pages while files are included in .jpg format on the CD appended at the back of this report. Photos marked with an asterisk (*) are reproduced as plates within the current document. See plans after table for photo locations.

Photo No.	Plate No.	Subject	Orientation	Date	Photographer
DSC_0001		Building C; street elevation looking north-east	→ NE	15.07.15	R Tyler
DSC_0002		General view of site from St Martin's Gate	→ NE	15.07.15	R Tyler
DSC_0003		General view of granary (A)	→ N	15.07.15	R Tyler
DSC_0004*	48	Building C; street elevation looking north-east	→ NE	15.07.15	R Tyler
DSC_0005		Building C; street elevation looking north-west	→ NW	15.07.15	R Tyler
DSC_0006		General view of site from St Martin's Gate	→ NW	15.07.15	R Tyler
DSC_0007		Building C; street elevation looking north-west	→ NW	15.07.15	R Tyler
DSC_0008		Building D looking north-east	→ NE	15.07.15	R Tyler
DSC_0009		Building C; bird's eye view from multi-storey carpark	→ NE	15.07.15	R Tyler
DSC_0010		Granary A; bird's eye view from multi-storey carpark	→ N	15.07.15	R Tyler
DSC_0011		General view of site; bird's eye view from multi-storey carpark	→ NE	15.07.15	R Tyler
DSC_0012		General view of site; bird's eye view from multi-storey carpark	→ N	15.07.15	R Tyler
DSC_0013		General view of site; bird's eye view from multi-storey carpark	→ NW	15.07.15	R Tyler
DSC_0014*	33	Acidifying sheds B; bird's eye view from multi-storey carpark	→ NE	15.07.15	R Tyler
DSC_0015		Building C; bird's eye view from multi-storey carpark	→ NE	15.07.15	R Tyler
DSC_0016		Stables D; bird's eye view from multi-storey carpark	→ NE	15.07.15	R Tyler
DSC_0019*	50	Building C; detail of dog-tooth eaves band	↑	15.07.15	R Tyler
DSC_0020		Building C; detail of dog-tooth eaves band	↑	15.07.15	R Tyler
DSC_0021		Building C, west gable end	→ E	15.07.15	R Tyler
DSC_0022		Building C, west gable end; detail of circular window	→ E	15.07.15	R Tyler
DSC_0023		Building C, west gable end; detail of inserted door and window	→ E	15.07.15	R Tyler
DSC_0025*	52	Building C, oblique view looking south-east	→ SE	15.07.15	R Tyler
DSC_0026		Building C, inserted high roller doors	→ S	15.07.15	R Tyler
DSC_0027*	49	Building C, detail of blue-brick plinth	↓	15.07.15	R Tyler
DSC_0028		Building C; detail of dog-tooth eaves band	↑	15.07.15	R Tyler
DSC_0029		Building C; pier of brick between inserted roller doors	→ S	15.07.15	R Tyler
DSC_0030*	54	Building C; detail of DSC_0029 showing straight joint	→ S	15.07.15	R Tyler
DSC_0031		Building C, north elevation; primary door at Bay 6	→ SE	15.07.15	R Tyler
DSC_0032		Building C, north elevation; primary door at Bay 6	→ SE	15.07.15	R Tyler
DSC_0033*	55	Building C, north elevation; primary door at Bay 6	→ S	15.07.15	R Tyler
DSC_0034		Building C; pier of brick to east of inserted roller door, Bay 7	→ S	15.07.15	R Tyler
DSC_0035		Building C, interior (Bays 9/10) looking south-east	→ SE	15.07.15	R Tyler
DSC_0036*	60	Building C, interior (Bays 9/10) looking south-east (stair to inserted upper floor)	→ SE	15.07.15	R Tyler
DSC_0037*	59	Building C, interior (Bays 7/8) looking south-east	→ SE	15.07.15	R Tyler
DSC_0038		Building C, interior (Bays 7/8) looking south-east	→ SE	15.07.15	R Tyler
DSC_0039*	56	Building C; detail of roof truss T6	↑	15.07.15	R Tyler
DSC_0040		Building C; detail of roof truss T6	↑	15.07.15	R Tyler
DSC_0041		Building C; detail of roof truss T6	↑	15.07.15	R Tyler
DSC_0042		Building C; detail of roof truss T5	↑	15.07.15	R Tyler
DSC_0043		Building C; blind section of north elevation	→ SE	15.07.15	R Tyler
DSC_0044		Looking east between Building B2 and C	→ E	15.07.15	R Tyler
DSC_0045*	35	Building B2, south wall oblique	→ NE	15.07.15	R Tyler
DSC_0046		Building B2, west elevation	→ E	15.07.15	R Tyler
DSC_0047*	34	Building B1/2 looking north-east	→ NE	15.07.15	R Tyler
DSC_0048		Straight-joint between B1 and B2	→ E	15.07.15	R Tyler
DSC_0049		Infill Block E looking E (with archaeological trench to foreground)	→ E	15.07.15	R Tyler
DSC_0050		Infill Block E looking north-east	→ NE	15.07.15	R Tyler
DSC_0051		Infill Block E looking north-east	→ NE	15.07.15	R Tyler
DSC_0052		Building B2, interior looking east	→ E	15.07.15	R Tyler
DSC_0053		Building B2, interior looking east	→ E	15.07.15	R Tyler
DSC_0054		Building B2, interior looking north-east	→ NE	15.07.15	R Tyler
DSC_0055*	43	Inserted doorway between B1 and B2	→ NW	15.07.15	R Tyler
DSC_0056		Detail of chamfered plinth to S wall B1 (formerly exterior)	→ NE	15.07.15	R Tyler

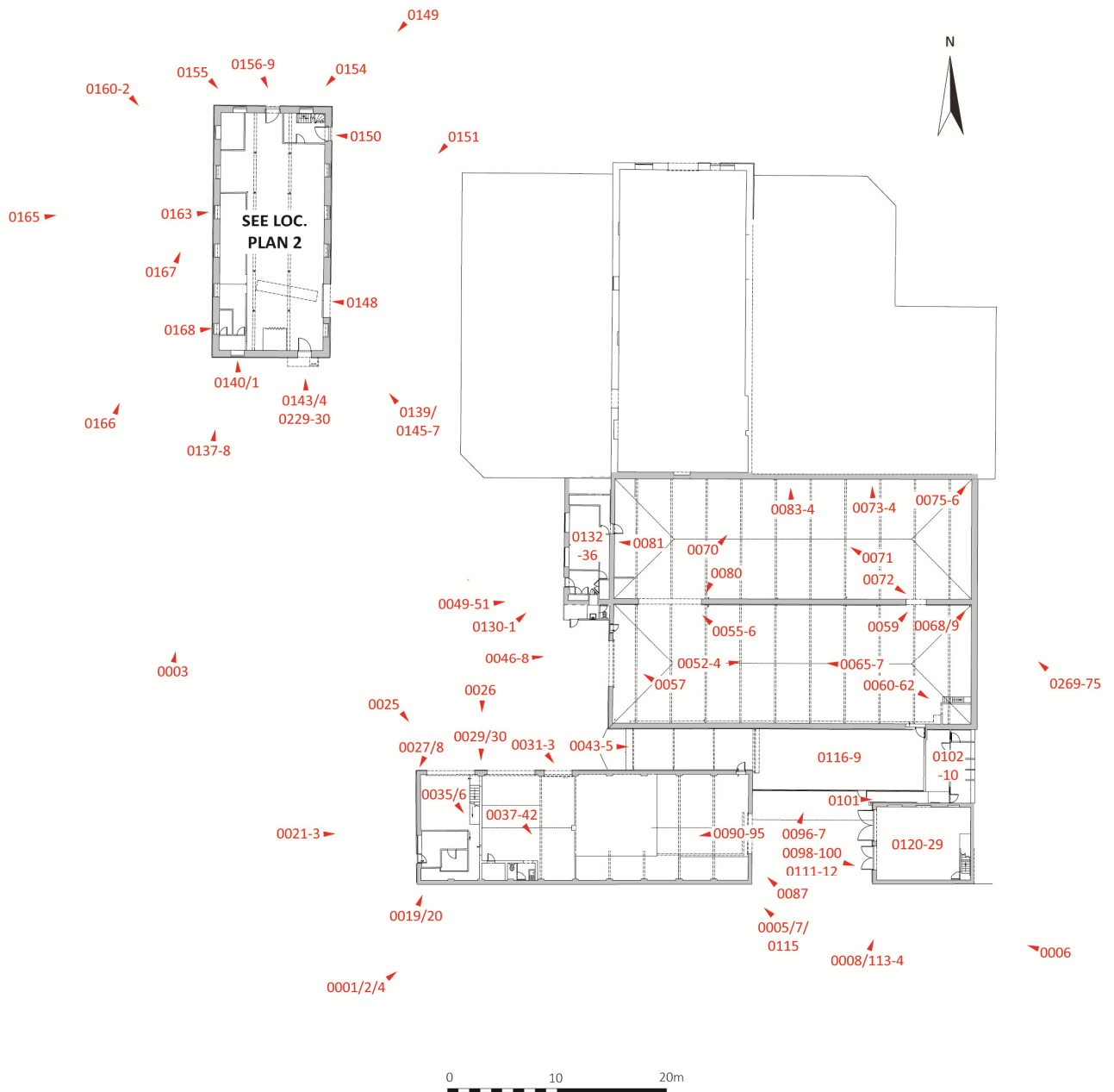
DSC_0057*	46	Building B2 , inserted double roller door	→ W	15.07.15	R Tyler
DSC_0058		Building B2, gantry crane	↑	15.07.15	R Tyler
DSC_0059		Building B1/2, connecting doorway	→ NE	15.07.15	R Tyler
DSC_0060		Building B2; inserted store and raised platform as SE angle	→ SE	15.07.15	R Tyler
DSC_0061*	47	Building B2; inserted store and raised platform as SE angle	→ SE	15.07.15	R Tyler
DSC_0062		Building B2; partly blocked and reduced door to south wall	→ S	15.07.15	R Tyler
DSC_0063		Building B2; roof structure	↑	15.07.15	R Tyler
DSC_0064		Building B2; roof structure	↑	15.07.15	R Tyler
DSC_0065*	45	Building B2; roof structure	↑	15.07.15	R Tyler
DSC_0066*	44	Building B2 looking west	→ W	15.07.15	R Tyler
DSC_0067		Building B2 looking west	→ W	15.07.15	R Tyler
DSC_0068		Building B2; chamfered plinth of B1 (south wall)	→ N	15.07.15	R Tyler
DSC_0069		Building B2; chamfered plinth of B1 (south wall)	→ N	15.07.15	R Tyler
DSC_0070*	37	Building B1 looking north-east	→ NE	15.07.15	R Tyler
DSC_0071*	36	Building B1 looking north-west	→ NW	15.07.15	R Tyler
DSC_0072*	41	Building B1. Original connecting door to B2	→ SE	15.07.15	R Tyler
DSC_0073		Building B1; blocked doors in north wall (E end)	→ NW	15.07.15	R Tyler
DSC_0074*	39	Building B1; blocked doors in north wall (E end)	→ N	15.07.15	R Tyler
DSC_0075*	40	Building B1; blocked door at E end, N wall; abutted by east wall	→ NE	15.07.15	R Tyler
DSC_0076		Building B1; blocked door at E end, N wall; abutted by east wall	→ NE	15.07.15	R Tyler
DSC_0079		Building B1; roof structure	↑	15.07.15	R Tyler
DSC_0080		Building B1, large inserted connecting door to B2	→ SW	15.07.15	R Tyler
DSC_0081*	42	Building B1; reduced doorway in W wall	→ W	15.07.15	R Tyler
DSC_0083*	38	Building B1; full-height straight joint in N wall (Bay 4/5)	→ N	15.07.15	R Tyler
DSC_0084		Building B1; full-height straight joint in N wall (Bay 4/5); detail	→ N	15.07.15	R Tyler
DSC_0085		Building B1; detail of skylight (former ridge vent)	↑	15.07.15	R Tyler
DSC_0086		Building B1; detail of skylight (former ridge vent)	↑	15.07.15	R Tyler
DSC_0087*	51	Building C, west gable end	→ E	15.07.15	R Tyler
DSC_0088		Building C; detail of dog-tooth eaves band	↑	15.07.15	R Tyler
DSC_0089		Building C, west gable end (oblique)	→ NW	15.07.15	R Tyler
DSC_0090*	57	Building C (east end); interior	→ W	15.07.15	R Tyler
DSC_0091*	58	Building C (east end); detail of blue-brick flooring	↓	15.07.15	R Tyler
DSC_0092		Building C (east end); detail of blue-brick flooring	↓	15.07.15	R Tyler
DSC_0093		Building C; detail of king-bolt roof truss	↑	15.07.15	R Tyler
DSC_0094		Building C (east end); detail of blue-brick flooring	↓	15.07.15	R Tyler
DSC_0095		Building C (east end); detail of blue-brick flooring	↓	15.07.15	R Tyler
DSC_0096*	75	Modern infill block between Buildings C,B2, and D	→ N	15.07.15	R Tyler
DSC_0097		Modern infill block between Buildings C,B2, and D	→ NE	15.07.15	R Tyler
DSC_0098*	66	Building D, west elevation	→ E	15.07.15	R Tyler
DSC_0099		Building D, chamfered plinth	↓	15.07.15	R Tyler
DSC_0100		Building D, chamfered plinth	↓	15.07.15	R Tyler
DSC_0101*	62	Building D, north elevation (oblique)	→ E	15.07.15	R Tyler
DSC_0103*	63	Building D, north elevation, blocked door	→ S	15.07.15	R Tyler
DSC_0104		Building D, north elevation, blocked door (detail of stopped bull-nosed jamb	→ S	15.07.15	R Tyler
DSC_0105*	64	Building D, north elevation, blocked window	→ SW	15.07.15	R Tyler
DSC_0106		Building D, north elevation, blocked window (abutted by toilet block)	→ SE	15.07.15	R Tyler
DSC_0107*	65	Building D; detail of toothed brickwork for former manure pit	→ S	15.07.15	R Tyler
DSC_0108*	74	Modern toilet block to north of stables D	→ N	15.07.15	R Tyler
DSC_0109		Modern toilet block to north of stables D	→ N	15.07.15	R Tyler
DSC_0110		Chamfered plinth to south wall B2	→ N	15.07.15	R Tyler
DSC_0111		Building D, west elevation	→ E	15.07.15	R Tyler
DSC_0112		Building D, west elevation	→ E	15.07.15	R Tyler
DSC_0113		Building D, oblique view looking north-east	→ NE	15.07.15	R Tyler
DSC_0114*	61	Building D, oblique view looking north-east	→ NE	15.07.15	R Tyler
DSC_0115		Building C, oblique view looking north-west	→ NW	15.07.15	R Tyler
DSC_0116		View within modern lean-to, looking west	→ W	15.07.15	R Tyler
DSC_0117		View within modern lean-to, looking east	→ E	15.07.15	R Tyler
DSC_0118		View within modern lean-to, looking west	→ W	15.07.15	R Tyler
DSC_0119		View within modern lean-to, looking east	→ W	15.07.15	R Tyler
DSC_0120*	68	Building D, interior (GF) looking north-west	→ NE	15.07.15	R Tyler
DSC_0121		Building D, interior (GF) looking west	→ W	15.07.15	R Tyler
DSC_0122*	67	Building D, west elevation; former window above inserted door	→ E	15.07.15	R Tyler
DSC_0123		Building D' former window in west wall (interior)	→ W	15.07.15	R Tyler

DSC_0124		Building D, interior (GF) door to stair	→ E	15.07.15	R Tyler
DSC_0125		Building D, interior (GF); stair	→ N	15.07.15	R Tyler
DSC_0126		Building D, interior (GF) looking north-west	→ NW	15.07.15	R Tyler
DSC_0127*	69	Building D, interior (1F) looking east	→ E	15.07.15	R Tyler
DSC_0128		Building D, interior (1F) looking east	→ E	15.07.15	R Tyler
DSC_0129		Building D, interior (1F) looking west	→ W	15.07.15	R Tyler
DSC_0130*	70	Building E looking north-east	→ NE	15.07.15	R Tyler
DSC_0131		Building E looking north-east	→ NE	15.07.15	R Tyler
DSC_0132*	72	Building E; blocked door in south wall	→ S	15.07.15	R Tyler
DSC_0133		Building E; blocked door in south wall	→ S	15.07.15	R Tyler
DSC_0134		Building E, representative interior	→ N	15.07.15	R Tyler
DSC_0135*	71	Building E, representative interior	→ SW	15.07.15	R Tyler
DSC_0136*	73	Building E, chamfered plinth of B1 vis. in passage	→ N	15.07.15	R Tyler
DSC_0137		Building A looking north-east	→ NE	16.07.15	R Tyler
DSC_0138		Building A looking north-east	→ NE	16.07.15	R Tyler
DSC_0139*	5	Building A looking north	→ N	16.07.15	R Tyler
DSC_0140*	7	Building A; detail of blocked GF window	---	16.07.15	R Tyler
DSC_0141		Building A; detail of blocked GF window	---	16.07.15	R Tyler
DSC_0142*	6	Building A, detail of open 1F window	↑	16.07.15	R Tyler
DSC_0143		Building A, detail of fire-escape stair to S elev	→ N	16.07.15	R Tyler
DSC_0144		Building A, detail of fire-escape stair to S elev	→ N	16.07.15	R Tyler
DSC_0145		Building A looking north-west	→ NW	16.07.15	R Tyler
DSC_0146*	2	Building A looking north-west	→ NW	16.07.15	R Tyler
DSC_0147		Building A looking north-west	→ NW	16.07.15	R Tyler
DSC_0148*	8	Building A, east elevation – inserted garage door	→ W	16.07.15	R Tyler
DSC_0149		Building A looking south-west	→ SW	16.07.15	R Tyler
DSC_0150*	9	Building A, pedestrian door to N end E elev	→ W	16.07.15	R Tyler
DSC_0151		Building A, east elevation	→ W	16.07.15	R Tyler
DSC_0152*	10	Building A, blocked loading door at 3F, E elev	↑	16.07.15	R Tyler
DSC_0153		Building A, detail of open window	↑	16.07.15	R Tyler
DSC_0154		Building A, north elevation	→ SW	16.07.15	R Tyler
DSC_0155*	4	Building A, north elevation	→ SE	16.07.15	R Tyler
DSC_0156		Building A, north elevation; detail of blocked loading doors	→ SW	16.07.15	R Tyler
DSC_0157		Building A, north elevation; detail of blocked loading doors	↑	16.07.15	R Tyler
DSC_0158		Building A, north elevation; detail of blocked loading doors	↑	16.07.15	R Tyler
DSC_0159		Building A, north elevation; detail of blocked loading doors	↑	16.07.15	R Tyler
DSC_0160		Building A looking south-east	→ SE	16.07.15	R Tyler
DSC_0161*	3	Building A looking south-east	→ SE	16.07.15	R Tyler
DSC_0162		Building A looking south-east	→ SE	16.07.15	R Tyler
DSC_0163		Building A; detail of blocked GF window	---	16.07.15	R Tyler
DSC_0164		Building A; detail of stone cill	---	16.07.15	R Tyler
DSC_0165		Building A, west elevation	→ E	16.07.15	R Tyler
DSC_0166		Building A looking north-east	→ NE	16.07.15	R Tyler
DSC_0167*	11	Building A, west elevation; detail of patching rel. insertion of transverse steel beams	↑	16.07.15	R Tyler
DSC_0168		Building A, west elevation; detail of window blocked in two phases	→ E	16.07.15	R Tyler
DSC_0169		Building A, detail of open window	↑	16.07.15	R Tyler
DSC_0170*	13	Building A, interior (GF); supporting column	→ SW	16.07.15	R Tyler
DSC_0171		Building A, interior (GF); supporting column, detail of head	↑	16.07.15	R Tyler
DSC_0172*	14	Building A, interior (GF); supporting column, detail of head	↑	16.07.15	R Tyler
DSC_0173		Building A, interior (GF); inserted garage doors and vehicle inspection pit	→ E	16.07.15	R Tyler
DSC_0174		Building A, interior (GF); inserted garage doors and vehicle inspection pit	→ E	16.07.15	R Tyler
DSC_0175*	12	Building A, interior (GF) looking north	→ N	16.07.15	R Tyler
DSC_0176		Building A, interior (GF); inserted elevator	→ S	16.07.15	R Tyler
DSC_0177		Building A, interior (GF); inserted elevator	→ S	16.07.15	R Tyler
DSC_0178		Building A, interior (GF) inserted partitions to west side of range	→ SW	16.07.15	R Tyler
DSC_0179		Building A, interior (GF) inserted partitions to west side of range	→ NW	16.07.15	R Tyler
DSC_0180*	16	Building A, interior (GF); brick enclosed oil tank at NW corner	→ NW	16.07.15	R Tyler
DSC_0181*	15	Building A, interior (GF); enclosed stair to NE corner	→ NE	16.07.15	R Tyler
DSC_0182*	17	Building A, stair (GF-1F)	→ NE	16.07.15	R Tyler
DSC_0183		Building A, stair (GF-1F)	→ E	16.07.15	R Tyler
DSC_0184		Building A, interior (1F) looking south	→ S	16.07.15	R Tyler

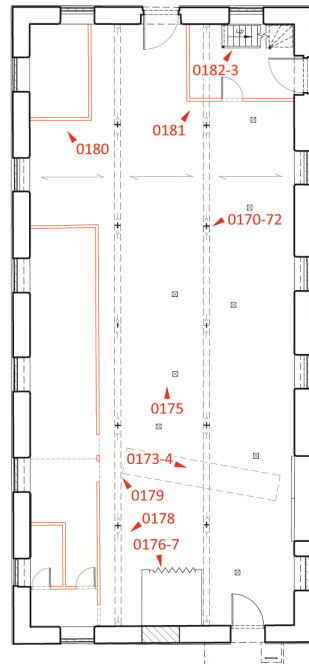
DSC_0185*	19	Building A, interior (1F) looking south	→ S	16.07.15	R Tyler
DSC_0186*	22	Building A, interior (1F); detail of supporting column	→ SW	16.07.15	R Tyler
DSC_0187*	21	Building A, interior (1F); detail of removed supporting column	→ NW	16.07.15	R Tyler
DSC_0188*	23	Building A, interior (1F); primary beam cut through for insertion of RSJ	↑	16.07.15	R Tyler
DSC_0189		Building A, interior (1F); patching to floor at location of removed primary column	↓	16.07.15	R Tyler
DSC_0190		Building A, interior (1F); patching to floor at location of removed primary column	↓	16.07.15	R Tyler
DSC_0191		Building A, interior (1F); inserted transverse steel	---	16.07.15	R Tyler
DSC_0192		Building A, interior (1F); inserted transverse steel	---	16.07.15	R Tyler
DSC_0193		Building A, interior (1F); detail of fillet skirt moulding	↓	16.07.15	R Tyler
DSC_0194*	24	Building A, interior (1F); detail of fillet skirt moulding	↓	16.07.15	R Tyler
DSC_0195		Building A; interior detail of window (1F)	---	16.07.15	R Tyler
DSC_0196		Building A; interior detail of window (1F)	---	16.07.15	R Tyler
DSC_0197		Building A, interior (1F); inserted elevator	→ S	16.07.15	R Tyler
DSC_0198		Building A, interior (1F); loading door to east of elevator (adapted from primary)	→ S	16.07.15	R Tyler
DSC_0199		Building A, interior (1F); loading door to east of elevator (adapted from primary)	→ S	16.07.15	R Tyler
DSC_0200		Building A, interior (1F) looking north	→ N	16.07.15	R Tyler
DSC_0201		Building A, interior (1F); detail of chute through floor	↑	16.07.15	R Tyler
DSC_0202		Building A, interior (1F); enclosed office/stair to Bay 1	→ NE	16.07.15	R Tyler
DSC_0203*	25	Building A, interior (1F); detail of chute through floor	↑	16.07.15	R Tyler
DSC_0204*	18	Building A, stair (1F-2F)	→ NE	16.07.15	R Tyler
DSC_0206		Building A, interior (2F) looking south-east	→ SE	16.07.15	R Tyler
DSC_0207		Building A, interior (2F) looking south-west	→ SW	16.07.15	R Tyler
DSC_0208*	20	Building A, interior (2F) looking north-east	→ NE	16.07.15	R Tyler
DSC_0209		Building A, interior (2F); detail of supporting column	---	16.07.15	R Tyler
DSC_0210		Building A, interior (2F); detail of supporting column head	↑	16.07.15	R Tyler
DSC_0211		Building A, interior (2F); inserted transverse steel	---	16.07.15	R Tyler
DSC_0212		Building A, interior (1F); blocked loading door to N elev.	→ N	16.07.15	R Tyler
DSC_0213		Building A, interior (1F); enclosed stair	→ NE	16.07.15	R Tyler
DSC_0214		Building A, interior (1F); detail of stop-chamfered timber beam	↑	16.07.15	R Tyler
DSC_0215		Building A, interior (2F); inserted transverse steel	↑	16.07.15	R Tyler
DSC_0216		Building A, interior (3F) looking south-west	→ SW	16.07.15	R Tyler
DSC_0217		Building A, interior (3F); detail of secondary 'torus' skirting	↓	16.07.15	R Tyler
DSC_0218		Building A, interior (3F); detail of king-bolt roof construction	↑	16.07.15	R Tyler
DSC_0219		Building A, interior (3F); detail of king-bolt roof construction	↑	16.07.15	R Tyler
DSC_0220		Building A, interior (3F); interior detail of window	→ SE	16.07.15	R Tyler
DSC_0221		Building A, interior (3F); interior detail of window	→ SE	16.07.15	R Tyler
DSC_0223*	29	Building A, interior (3F) looking north-west	→ NW	16.07.15	R Tyler
DSC_0224*	30	Building A, interior (3F); head of stair	→ N	16.07.15	R Tyler
DSC_0226		Building A, interior (2F); ceiling hatch	↑	16.07.15	R Tyler
DSC_0227		Building A, interior (2F); soffit of stair	↑	16.07.15	R Tyler
DSC_0229		Building A, detail of external fire-escape stair	→ NW	16.07.15	R Tyler
DSC_0230		Building A, detail of external fire-escape stair	→ NW	16.07.15	R Tyler
DSC_0231		Building A, interior (1F); ceiling hatch / chute	↑	16.07.15	R Tyler
DSC_0232		Building A, interior (1F); ceiling hatch / chute	↑	16.07.15	R Tyler
DSC_0233		Building A, interior (1F); ceiling hatch / chute	↑	16.07.15	R Tyler
DSC_0234		Building A, interior (1F); ceiling hatch / chute	↑	16.07.15	R Tyler
DSC_0235		Building A, interior (2F); inserted transverse steel	↑	16.07.15	R Tyler
DSC_0236		Building A, interior (2F); ceiling hatch	↑	16.07.15	R Tyler
DSC_0237*	27	Building A, interior (2F); ceiling hatch	↑	16.07.15	R Tyler
DSC_0238		Building A, interior (2F); ceiling hatch	↑	16.07.15	R Tyler
DSC_0239		Building A, interior (3F); floor hatch (closed)	↓	16.07.15	R Tyler
DSC_0240		Building A, interior (3F); floor hatch (open)	↓	16.07.15	R Tyler
DSC_0241*	28	Building A, interior (3F); floor hatch (open)	↓	16.07.15	R Tyler
DSC_0242		Building A, interior (3F); floor hatch handle	↓	16.07.15	R Tyler
DSC_0244		Building A, interior (3F); wall box to east wall (Bay1)	→ SE	16.07.15	R Tyler
DSC_0245*	31	Building A, interior (3F); detail of wall box	↑	16.07.15	R Tyler
DSC_0246		Building A, interior (3F); blocked loading door to N elev	→ NE	16.07.15	R Tyler
DSC_0247		Building A, interior (3F); bracket rel. former lucam	↑	16.07.15	R Tyler
DSC_0248		Building A, interior (3F); profile of lucam vis. in common rafters of N	↑	16.07.15	R Tyler

		hip			
DSC_0249*	32	Building A, interior (3F); detail of king-bolt roof construction	↑	16.07.15	R Tyler
DSC_0250		Building A, interior (3F); detail of king-bolt roof construction	↑	16.07.15	R Tyler
DSC_0251		Building A, interior (3F); tie resting on timber pad	↑	16.07.15	R Tyler
DSC_0252		Building A, interior (3F); inserted elevator	→ SW	16.07.15	R Tyler
DSC_0253		Building A, interior (3F); floor hatch (closed)	↓	16.07.15	R Tyler
DSC_0255		Building A, interior; offset in brickwork at 1F/2F (vis. in stairwell)	↓	16.07.15	R Tyler
DSC_0256*	26	Building A, interior; offset in brickwork at 1F/2F (vis. in stairwell)	↓	16.07.15	R Tyler
DSC_0257*	53	Building C; bi-partite roofing (upper part formerly glazed)	→ S	16.07.15	R Tyler
DSC_0258		Building C; bi-partite roofing (upper part formerly glazed)	→ S	16.07.15	R Tyler
DSC_0269		Building B, east elevation	→ NW	16.07.15	R Tyler
DSC_0272		Building B, east elevation	→ NW	16.07.15	R Tyler
DSC_0273		Building B, east elevation; SJ at B1/B2	→ W	16.07.15	R Tyler
DSC_0275		Building B, east elevation	→ SW	16.07.15	R Tyler

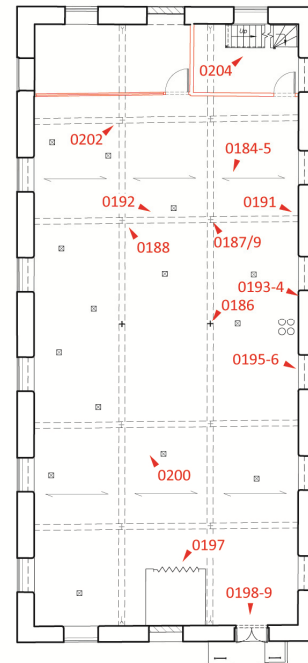
See overleaf for photo location plans



Hill, Evans and Co. Vinegar Works: Photo location plan 1

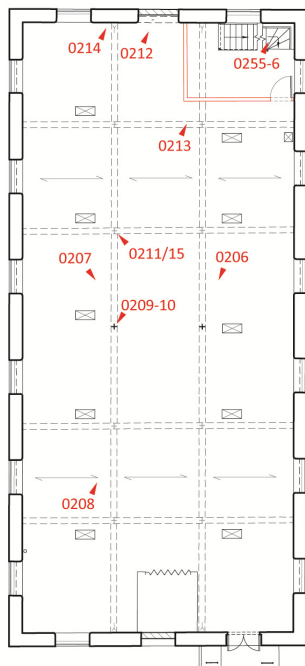


(a) Ground floor

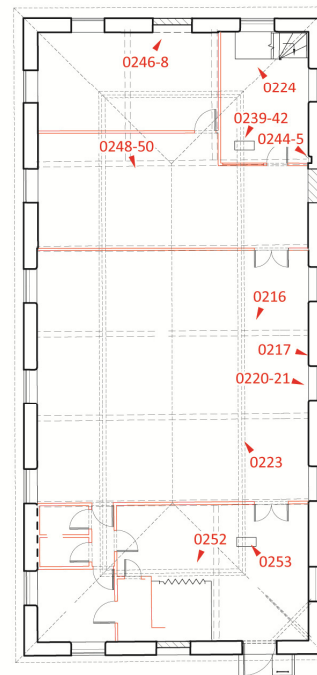


(b) First floor

0 5 10m



(c) Second floor



(d) Third floor

Hill, Evans and Co. Vinegar Works: Photo location plan 2 (*Granary interior*)

APPENDIX D: Transcription of Dr Strauss's Account, 1864

'Why it should be necessary to go either through a church or a newly built parochial school on our way to the manufactory is not quite clear; but, as we stand at the door of the building to which we have been directed, and notice its red brick and white facings, its pointed roof, its large windows, its swinging half-glass door, and above all, its extreme cleanliness (to say nothing of its size), we feel that there must be some preliminary ceremony of this kind to observe, and rub our shoes very carefully. Furtively peeping through the same glass door, however, we discover that this building is the counting-house – that the space which should be occupied by pews is filled with long and shining desks – that instead of a 'dim religious light', there are more windows in the roof, which throw everything into strong relief, and that the semi-ecclesiastical style of architecture is admirably adapted for business purposes. Note remaining here long, however, we are delivered to a patient guide, who informs us as we cross the yard that the manufacture of British wine was introduced at Worcester between eighty and ninety years ago; that Messrs. Hill Evans and Co. purchased the business in 1829; that it was at that time of very limited extent, but has now so greatly increased as to place the firm upon an equality with the oldest and largest manufactories of British wines in the kingdom.

Compared to the vinegar-works which were established by the firm in 1830, the manufacture of British wines in which these gentlemen engage scarcely seems extensive; but taken alone it affords some scope for reflection, since the vaults in which are stored orange, ginger, raisin, cherry, currant, and the rest, are of very great extent, lying indeed, beneath a large portion of the warehouses above, and consisting of eleven avenues some 240 feet in length, and capable of containing about 3000 butts or pipes of assorted British wines. The process of manufacturing the wine is not a complicated one, since the fruit having been once steeped, fermented, and pressed, it is only required to store and give it age and maturity, when it is fined ready for sending out.

Although Messrs. Hill, Evans and Co. originated the manufacture of vinegar in 1830, it was evident that there were vinegar-works in that city at a very much earlier date, since their present establishment includes the site of two small manufactories; and a row of about twenty houses, called Vinegar Row, has lately been pulled down by the firm to effect a public improvement. From the immense cellars of British wine we proceed at once to the inspection of the operations in the larger manufacture of vinegar.

Requesting that we 'begin at the beginning', and finding that the beginning is grain, we cross a yard where the new red buildings rise storey above storey like dock warehouses, and are taken to the granary floors, of which, beside the basement. There are three, together capable of containing some 8000 quarters of the grain from which the vinegar is composed. To the topmost room this grain is first hoisted by means of a crane, and through the traps in the boards, is afterwards shot into the lower floors, where heaps of barley and sacks of malt lie in all directions ready for unnumbered brewings.

The first process to which the grain is subject is, of course, grinding, and for this purpose it is taken to a floor where three great wooden hoppers receive respectively oats, barley and malt, and conduct them to the receivers of the mills below – mills formed of the ordinary circular stones revolving one upon the other in protecting iron boxes, and each furnished with a lever, by means of which the stones can be raised, for the purpose of cleaning and repairs. From these slowly revolving inveterate mills the crushed grain falls in flakes, hot with the friction, through metal chutes, into a wooden trough which runs the entire length of the room below. Through this trough passes a sort of endless band, furnished on its upper side with little open pockets, which as it passes through the meal, fill themselves and carry their contents up again, through a wooden shaft, there to empty themselves into another trough provided at the bottom with canvas funnels, beneath which are placed the sacks for filling, the meal being pushed along the channel by means of a revolving bar furnished with flanges at regular interval. These operations, as well as some others yet to be described, are effected by means of steam power; and in keeping with the scrupulous cleanliness which characterises the whole establishment, we notice that the engine room, through which we pass to the meal-room, is a large apartment in which there is nothing except the necessary appliances for working the engine. The engine itself looks like a highly magnified working model of some mechanical improvement, and is so bright and carefully kept that even the engine room of a crack steam-yacht might suffer by comparison. It is of forty horse power, and is constructed on the high pressure principle; but we are surprised that there is so little noise, and miss the usual clang and rattle of steam machinery – a circumstance partly accounted for by the fact that one of the driving wheels is of wood and the other of iron.

The full sacks are now removed to the meal-room, and beneath the meal-room, elevated on a timber stage or platform, and accessible by wooden steps leading to a surrounding gallery, stands the great mash-tun, surrounded at some distance by vats which are filled with water from a large main tank. On ascending to witness the first actual process of vinegar-making, we are forcibly reminded of the great tun at Heidelberg, which lies amidst its wooden beams and supports in a manner not dissimilar. Early in the morning the brewing commences; the tun is partially filled with water, and receives the meal through the shuts in the floor above. About 384 bushels of barley, 68 bushels of oats, and a like quantity of malt, in all 65 quarters of meal, is sufficient for a day's brew; and this, taking up the water, forms a 'gruel thick and slab', to which is added some water heated by means of steam-pipes passing through the vats. Four times, and each at an increased temperature, must this be added before the brewing is complete. While it steeps and seethes, a series of rakes, with flanges something like those of a paddle-wheel, revolve on a bar which crosses the tun, this bar itself revolving on an axis as though the whole concern were a sort of rude orrery adapted to a mechanical purpose. Over the whole surface of the seething liquid lies a great, dense, white, yeasty flake, and a pleasant odour arises which bespeaks the richness of the brew. As soon as the strength has been thoroughly extracted, the operation is complete, and the liquid portion of the mass is run off into tanks below. This liquid – aromatic, sweet, and gummy – is indeed 'sweet wort', with all its insidious property of intoxication. By this process the sugar and the diastase (formed in malting from the starch and the gluten of the grain) are dissolved, and the latter substance acting on the starch of the grain not malted, changes it first into a species of soluble gum, and, finally into saccharine matter. We now follow the operations which convert the sugar into alcohol by vinous fermentation; a task which involves a steady climbing of wooden stairs, and an amount of personal exertion which nothing but an intense interest in the subject could render endurable, for from the tanks into which it has been run from the mash-tun the wort is pumped through large copper pipes into an enormous tank which stands on the roof of the building, and is itself covered at some height above it by a raised roof of its own, supported by pillars, and leaving it open to the air all round. This is the 'receiving tank', and, after having paused a moment to take breath, and a bird's eye view of the neighbourhood at the same time, we venture to look into it, and see the wort which has been pumped in lying under a light, snowy froth. The way up has led along wooden galleries, intersected by great water-tanks, and, looking fearfully down into the floors which lie below, we prepare to retrace our steps. From the receiving-vat the liquid is allowed to run in pipes through the refrigerators, a series of tanks containing cold water, from which it at last escapes into the great shallow cooler which is sunk into the floor of the upper storey, and exactly resembles a swimming-bath, except that there are no boxes for undressing, and no bundles of corks floating on its surface. This bath is about 60 feet long and 30 feet wide, but only a foot in depth; and, instead of windows, the upper part of the walls next the roof is formed of open lattice-work. The temperature of the wort on leaving the receiving – cistern is about 100° ; by the time it leaves the last refrigerator it is reduced to 78° , and it remains in the bath until the temperature is about 63° . Its specific gravity is then 55° . Immediately under this great bath or tank lie the fermenting-vats, of which there are eight, each holding some 16,000 gallons, and, the wort once run into these, the barm is thrown in and the fermentation commences, the gravity falling to 0 if the operation is successfully conducted. The final process of acetous fermentation now claims attention, and we once more mount by fresh flights of ladder-like steps to the acidifying rooms, where two stories of enormous vats stand in tiers, divided by brick partitions and accessible by a gallery or platform of timber. Into these vats (and there are thirty of them, holding eight to twelve thousand gallons) the wort is thrown by pumps which force it through pipes running underground. Nearly one half of each vat (from the top downwards) is occupied by large bunches of besom or birch-twigs, upon the surface of which the wort is continually splashed and thrown by means of another arrangement of pumps which wait for its arrival from below. The reason of this is sufficiently obvious – acidification being effected by the combination of alcohol with the oxygen of the atmosphere, and the great exposure necessary for complete oxidation being secured by the large surface presented by the bunches of besom through which the air passes freely. In the old process of acidification, beside admixtures of sulphuric acid – presently to be more fully explained - it was customary to expose the vats of wort in large, open spaces, called vinegar fields or yards; but, as well as being less efficacious and slower in the operation, this led to considerable waste of the acetic ether, which even here is escaping with such pungent odour that we seem to have been suddenly confined in a gigantic 'vinaigrette', and feel as though we should have an immunity from faintness and sudden headache for the remainder of our lives. Even under the improves system adopted by Messrs. Hill, Evans and Co., the acidification is by no means a rapid process, since it takes nearly a month of this exposure to effect the chemical change which converts the liquid into unfinned vinegar. Hitherto our attention has been divided between 'machinery in motion', fermentation, tuns, pumps, cisterns, and vats, which we have been led to describe by the term 'enormous'. We are now led into a great range of warehouses, where everything is still, quiet, cool, and almost solemn – led to the contemplation of a fresh series of vats of such dimensions that the 'three men in a tub' of nursery celebrity, become miserable

pretenders before about thirty huge erections of hoops and staves capable of forming roomy barracks where 'the butchers, bakers, and candlestick-makers' of Worcester might find accommodation. Of these the first half-score receive the vinegar for the purpose of 'fining' and to this end contain a small quantity of beech-chips, which aid in clarifying the vinegar. Each of these vats will contain 18,000 to 20,000 gallons, and are a fitting preparation for their brethren, whose stupendous bulk is devoted to storing the vinegar in a department called the 'filling room'.... To say that the least of the twenty monsters holds 10,000 gallons, and that the five largest will contain 80,000 each, is saying little, for mere figures give but inadequate idea of space; it is, perhaps, more to the purpose to remark, that on the completion of one of the smaller size a party of four-and-twenty sat down to tea within its timber walls, and that the area of the larger would afford ample accommodation for half-a-dozen fashionable 'kettledrums'.

The vinegar in its pure state is of a pale-straw colour; but, as there is a fashion in these matters, and the British public prefer the usual brownish tinge, the colouring is effected by means of burnt sugar. On the other hand, our Scottish neighbours object even to the natural hue, and the vinegar supplied for the northern trade has to be so distilled that it may be rendered perfectly white.

Having left the store-vats and the filling-room where the vinegar is drawn off into casks, we pass into the cooperage, on our way back to the counting house. Stacks of casks from the ground to the high ceiling, piles of staves, traps and pitfalls of hoops, a continual sound of spoke-shaving and hammering show that the work is going gaily on. But we have not yet done with the vinegar; for it remains for us to see it put to one of its most legitimate and principal uses, and in a manner which is in some sort a guarantee of its excellent quality. In truth, the well-known Pickle company of Messrs Lewis, Webb and Co. is so near the vinegar-works that it seems like a natural supplement; and we go there at once to continue our observations by noting the practical application of all the processes by which we seem to have been malted, ground, mashed, heated, fermented, cooled, alcoholised, acidified, fined and stored. Indeed Messrs. Lewis, Webb and Co. have contracted with their neighbours to use no other vinegar than theirs for the pickles made in their warehouses; and they adhere to the principle of non-adulteration by steadily disregarding that artificial brilliant green colour in the pickled vegetables which is only to be obtained by hurtful ingredients.

Here in a great yard, which is, in fact, a sort of open wharf, lie casks full of cucumbers, cabbages, onions, and all the variety which are combined in the 'mixed pickles' of ordinary domestic economy. They are being steeped in brine, previous to the first pickling in spice and vinegar, which precedes their being bottled. A cucumber of pale yellowish green, which is undergoing the first pickling, is already beautifully crisp and cool, and the difference between the results of using the ordinary admixture of pyroligneous acid and vinegar and the pure malt vinegar is detected instantly by anybody who has been unfortunate enough to taste the former compound.

As a finale to our visit to Worcester and its vinegar works, we call on Messrs Lea and Perrins, the manufacturers of the celebrated 'Worcester Sauce', are conducted by one of the firm through the works, and learnt that hundreds of gallons of the vinegar manufactured by Messrs Hill, Evans and Co. are used in making this famous condiment, of which the public consume 2000 dozen bottles per week, while the firm pay £4000 per annum for the bottles in which the sauce is sold. And so, with brief but not insincere compliments, we take our leave.....'

Dr GLM Strauss et al., 1864. 'Messrs Hill Evans and Co. Vinegar Works, Worcester'; extract from *England's Workshops*.