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THURSTON GRANARY, STATION HILL, THURSTON, SUFFOLK

HISTORIC BUILDING RECORDING

Level 2

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NGR: TL 91913 65063	Report No: 4936			
District: Mid Suffolk	Site Code: AS			
Approved: Claire Halpin MClfA	Project No: 6272			
Signed:	Date: September 2015			

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Project details	
Project name	Thurston Granary, Station Hill, Thurston, Suffolk

In July 2015 Archaeological Solutions Ltd (AS) conducted historic building recording at Thurston Granary, Station Hill, Thurston, Suffolk (NGR TL 91913 65063; Figs.1 - 2). The recording was undertaken in advance of the proposed demolition of the granary complex and redevelopment of the site. The project was required to comply with a condition imposed on planning consent associated with a planning appeal (Mid Suffolk DC Planning Ref. 3181/13 & 2613/11) which requires a programme of archaeological work.

Technical analysis of the complex at Thurston Granary complements and enhances much of the documentary assessment and reveals that the mid-19th century complex survives in outline but that the original ranges have been almost entirely rebuilt so that only fragmentary remains of the outer walls survive as well as small clues within the later fabric. Following the mid-19th century phase, there appears to have been two or three substantial phases of rebuilding and remodelling before the large-scale redevelopment of the 1980s, as well as what must have been numerous gradual alterations undertaken over time. The physical fabric suggests two principal phases of remodelling in the 20th century, and the historic fabric is consistent with a date in the 1920s or 30s for the first phase and a mid-20th century phase, probably the 1950s or 60s, for the second. This fits well with the documentary evidence that records changes in ownership around these times; changes in ownership often precede upgrading of buildings.

	l at nd				
Project dates (fieldwork)	21 st -22 nd July				
Previous work (Y/N/?)	N	Future work	TBC		
P. number	6272	6272 Site code AS 1776			
Type of project	Historic I	Historic Building Recording			
Site status	-	-			
Current land use	Previous	Previous granary			
Planned development		Demolition			
Main features (+dates)	Mid-19 th rebuilt in	Mid-19 th century probable maltings and granary, much rebuilt in early 20 th century			
Significant finds (+dates)	-	-			
Project location					
County/ District/ Parish	Suffolk	Suffolk Mid Suffolk The		Thurston	
HER/ SMR for area	Suffolk C	Suffolk County Council Historic Environment Record			
Post code (if known)	-	-			
Area of site	1100m ²	1100m ²			
NGR	TL 9191.	TL 91913 65063			
Height AOD (min/max)	50m AO	50m AOD			
Project creators					
Brief issued by	Dr Richa	rd Hoggett, Archaeol	ogical Officer, S	SCC	
Project supervisor/s (PO)	Tansy C	Tansy Collins			
Funded by	John Old	John Oldknow			
Full title	Thurston Granary, Station Hill, Thurston, Suffolk; Historic Building Recording				
Authors	Wilson, I	Wilson, L.			
Report no.	4936	4936			
Date (of report)	September 2015				

THURSTON GRANARY, STATION HILL, THURSTON, SUFFOLK

HISTORIC BUILDING RECORDING

SUMMARY

In July 2015 Archaeological Solutions Ltd (AS) conducted historic building recording at Thurston Granary, Station Hill, Thurston, Suffolk (NGR TL 91913 65063; Figs.1 - 2). The recording was undertaken in advance of the proposed demolition of the granary complex and redevelopment of the site. The project was required to comply with a condition imposed on planning consent associated with a planning appeal (Mid Suffolk DC Planning Ref. 3181/13 & 2613/11) which requires a programme of archaeological work.

Technical analysis of the complex at Thurston Granary complements and enhances much of the documentary assessment and reveals that the mid-19th century complex survives in outline but that the original ranges have been almost entirely rebuilt so that only fragmentary remains of the outer walls survive as well as small clues within the later fabric. Following the mid-19th century phase, there appears to have been two or three substantial phases of rebuilding and remodelling before the large-scale redevelopment of the 1980s, as well as what must have been numerous gradual alterations undertaken over time. The physical fabric suggests two principal phases of remodelling in the 20th century, and the historic fabric is consistent with a date in the 1920s or 30s for the first phase and a mid-20th century phase, probably the 1950s or 60s, for the second. This fits well with the documentary evidence that records changes in ownership around these times; changes in ownership often precede upgrading of buildings.

1 INTRODUCTION

- 1.1 In August 2015 Archaeological Solutions Ltd (AS) carried out an historic building recording at Thurston Granary, Station Hill, Thurston, Suffolk (NGR TL 91913 65063; Figs.1 2). The recording was undertaken in advance of the proposed demolition of the granary and redevelopment of the site, and was required to comply with a planning condition imposed on appeal approval (Mid Suffolk DC Planning Ref. 3181/13 & 2613/11) which requires a programme of archaeological work. The project was carried out in accordance with a brief issued by Suffolk County Council Archaeological Services Conservation Team (SCCAS/CT, dated 9th June 2015), and a specification compiled by AS (dated 11th June 2015) and approved by SCCAS/CT.
- 1.2 The programme of historic building recording followed the procedures outlined in the Historic England (formerly English Heritage) document *Understanding Historic Buildings: A guide to good recording practice* (2006) and also conformed to the Chartered Institute for Archaeologists (CIfA) *Standard and guidance for the*

archaeological investigation and recording of standing buildings or structures (2014). The level of recording was to Level 2 as defined in the HE document.

- 1.3 The principal objectives of the project were to carry out:
- the detailed archaeological recording and analysis of the structures in their present form (to English Heritage/Historic England Level 2), with the resultant archive to be deposited at an appropriate location in order to form a long-term record of the complex prior to demolition.

Planning Policy Context

- 1.4 The National Planning Policy Framework (NPPF 2012) states that those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are heritage assets. The NPPF aims to deliver sustainable development by ensuring that policies and decisions that concern the historic environment recognise that heritage assets are a non-renewable resource, take account of the wider social, cultural, economic and environmental benefits of heritage conservation, and recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF requires applications to describe the significance of any heritage asset, including its setting that may be affected in proportion to the asset's importance and the potential impact of the proposal.
- 1.5 The NPPF aims to conserve England's heritage assets in a manner appropriate to their significance, with substantial harm to designated heritage assets (i.e. listed buildings, scheduled monuments) only permitted in exceptional circumstances when the public benefit of a proposal outweighs the conservation of the asset. The effect of proposals on non-designated heritage assets must be balanced against the scale of loss and significance of the asset, but non-designated heritage assets of demonstrably equivalent significance may be considered subject to the same policies as those that are designated. The NPPF states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets and to make this publicly available is a requirement of development management. This opportunity should be taken in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

2 DESCRIPTION OF THE SITE

- 2.1 Thurston is a small village located c.6.4km to the east of Bury St Edmunds in Suffolk. The Granary complex is located on Station Hill c.95m to the north-east of the original station building and immediately to the north of the railway tracks.
- 2.2 The site is a large irregular plot and apart from the assessment buildings a small number of modern structures have been added on the south side, and to the north, outside of the site, further units have been employed as part of a motor garage. The complex consists of a number of structures, rebuilt and changed over

time. Each has been given a distinct number for ease of description and are shown on Fig. 11.

3 METHODOLOGY

Information was sought from a variety of available sources, and reference was made to the Chartered Institute for Archaeologists' (ClfA) Standard and guidance for historic environment desk-based assessment (2014). The following material was consulted as part of the assessment;

Archaeological databases

3.1 The standard collation of all known archaeological sites and find spots within Thurston comes from the Suffolk Historic Environment Record (SHER). Where relevant, these sites and finds are discussed in Section 4.2.

Historical and cartographic sources

3.2 Documentary and cartographic sources can help to establish a geographical, topographical and historical context for archaeological remains on the site and in the surrounding area. The social and economic contexts in terms of land ownership and changes in land use can often also be inferred. The principal source for this type of evidence was the Suffolk Record Office (SRO), based in Bury St Edmunds. Relevant documents are listed in Appendix 2 and reproduced in Figs. 3-5.

Secondary sources

3.3 The principal sources for this type of evidence was Suffolk Record Office (SRO), based in Bury St Edmunds, and AS's own in-house library. Unpublished sources regarding the assessment area, such as previous field evaluation reports and desk-based assessments, have also been consulted. All sources are listed in the bibliography.

Fieldwork

- 3.4 The site was visited between the 21st and 22nd July 2015 in order to undertake the technical analysis and photographic survey. The written description and photographic recording was carried out by Tansy Collins and Kathren Henry. No floor plans exist for the buildings, so illustrative sketch plans have been produced in order to location the photographs and reproduced as Figs. 11-13.
- 3.5 The photographic recording was conducted using a Canon 60D digital SLR camera (18 megapixels) and included all general external views and general internal views. Shots were also taken of surviving fixtures and fittings as well as evidence for the development of the buildings. External lighting and weather conditions were good at the time of the survey. A scale was used wherever possible, and a flash was employed for internal shots. A pictorial index of the digital photography and selected colour plates are included below together with location plots (Figs. 11-13).

4 THE EVIDENCE

4.1 Topography, geology & soils

- 4.1.1 The village of Thurston lies within gently undulation agricultural land, with a slight rise in the land towards Thedwastre Hill c.250m to the east. The area is largely void of any major watercourses, a series of small ponds feed a single brook which runs past the eastern border of the village.
- 4.1.2 The underlying geology of the area consists of the Cage Group; sedimentary bedrock formed in the Quaternary and Neogene periods. The overlying soil is a freely draining Breckland sand of the Worlington association.

4.2 Archaeological and historical background

- 4.2.1 Thurston is mentioned in Domesday Book as 'Torstuna' which means Thors Farm. Later this evolved into the Anglo Saxon Thurestun, which later became 'Thurston'. For centuries the settlement consisted of scattered farms and farm workers cottages within the Thedwastre Hundred, a group of 24 parishes within Suffolk (Brooks 2006, 14). The Thedwastre Hundred meeting place is recorded as possibly being located to the south (THS Misc), however it is more likely to be on top of the hill to the east, now occupied by Thedwastre White House (Duffy 2006, 1).
- 4.2.2 The tithe apportionment demonstrates that the land was used as a plantation in the 1840s, owned by multiple landowners, but an area to the north was occupied by William Smith, a farmer and maltster (Thurston History Group 2000, 119). The railway line was opened in 1846 between Ipswich and Bury and the population of Thurston rose as it brought new employment opportunities (Brooks 2006, 14). The original Thurston station buildings are now listed as Grade II, designed by Frederick Barnes in the baroque style.
- 4.2.3 Documentary evidence provides no exact date for the construction of the original buildings, but the previous desk-based assessment suggests that they are 1840s or 50s in date (Brooks 2006, 23). Later, the buildings were known locally as the 'Red Buildings', probably when painted with red oxide (Brooks 2006, 15). William Smith is listed as the first corn merchant in 1855. In 1864 the firm began to be known as W & A Smith as William's son Alfred joined the family business. By 1900 the name changed to W & A Smith & P. Bacon but by 1904 was just Smith & Bacon (www.elymrc.org.uk). At this time Alfred had taken over the family malting business and lived at Thedwastre Place; the houses to the east of the granary (Thurston History Group 2000, 120). The business was taken over by Harold Clarke in 1922 following the death of Alfred Smith, and it was under Clarke's leadership the buildings were extensively altered. Clarke was a shrewd business man and apparently became one of the largest barley merchants in the county, selling to large brewing companies, for example Bass of Burton-on-Trent (Thurston History Group 2000, 120). The barley was purchased from local farmers at the Corn Exchange and brought to the granary to be cleaned and sorted into different grades, and at one time the workforce numbered over 30 (Ibid.). In the 1930s, the granary was apparently expanded with the addition of new floors to provide extra capacity and it

is thought that the ground floor was a warehouse with bays for storage either side of the central tunnel (Ibid.).

- 4.2.4 During Clarke's ownership a black sign with white lettering was used at the station entrance and lorries were painted blue and black with plain white lettering: "Harold Clarke, Barley Merchant, Thurston" (www.elymrc.org.uk). When barley was to be shipped out, grain wagons would be propelled into a tunnel at the rear and filled with barley through hatches. The space in the tunnel was very tight and in 1942 a granary worker was killed after being trapped between the tunnel and the loaded wagons, which were being drawn out of the building (Brooks 2006, 15). Despite the competition from transport by road in the 1950s the station maintained good trade; between September and March the barley traffic could be intense with a train in the morning and again in the evening collecting or delivering 8-10 grain wagons at a time for shipment to breweries in Wolverhampton (Brooks 2006, 16).
- 4.2.5 In the 1960s Kenneth Wilson (Southern) Limited took over the business until the granary closed in circa 1980 (www.elymrc.org.uk). By the 1980s the building had fallen into disrepair and was later refurbished and let out as small commercial units by Mablin-Handley Developments Ltd (Brooks 2006, 16).

4.3 Cartographic and pictorial evidence

- 4.3.1 Cartographic evidence provides some evidence for the development of the buildings. The tithe map shows the area prior to the construction of the railway and the assessment buildings. At this point, the area of the site lie within woodland between two isolated farmsteads, remnants of Malting Farm and Thedwastre Hill Farm (Fig. 3). The apportionment lists the Rev. Matthew Armstrong as landowner of the plot (No. 244) with himself as the occupier; it is described as the Thedwastre Still Plantation.
- 4.3.2 The 1884 first edition Ordnance Survey (OS) map shows the area much changed and is the first to show the local area following the construction of the railway (Fig. 4). The principal station building itself lies on the north side of the railway line and to the east a rectangular structure (later marked as a goods shed) has its own tram line leading through it from the railway siding. The Fox and Hounds public house lies to the north-west and a small number of probable workers' cottages lie to the west. The site is now occupied and in outline appears very similar to the plan form of that which exists today with a tramline or small railway extending between the buildings within the complex and east to the principal railway line. A small square structure lies to the west of the complex adjoining the entrance to the site from the road. To the immediate north of the site is Thedwastre Place where it is likely that the manager of the granary complex resided. A pump is also noted on the north side of the complex.
- 4.3.3 Little has altered by the time of the production of the second edition OS map in 1904 (Fig. 5) although a range has been added to the north-west of the small square structure adjoining the entrance to the site. This corresponds well to the plan form of Range 10. There are two pumps now shown, one on the north and one at the east end of the complex. Subsequent OS maps provide little evidence for any changes in plan form of the complex and a plan produced in 1950 depicting the

railway sidings shows the buildings much as they are shown in Fig. 5 (Fig. 6). Not all of the complex is depicted but what is shown suggest that the ranges have been extended to the east with a range that lies in the position of Range 4 (see below) as well as ranges that do not survive beyond.

4.3.4 Late OS maps show little change in the layout at the site, but there are a number of photographs survive from the 20th century that provide evidence for the alterations to the buildings. These have been reproduced as Figs. 7-10 and reflect the change from working granary complex in 1970 (Fig. 7: www.elymrc.org.uk), where multiple towers are visible that housed various hoppers and pipes for the transference of grain, once sorted into specific grades or types, throughout the buildings for storage in the various silos. Fig. 8 shows the complex in 1980 (Suffolk record office newspaper clippings, no newspaper name) which shows the complex much as seen in the previous figure, but here shows Range 10 on the left with paired double doors for carts perhaps. A photograph reproduced by the Thurston History Group (2000, 119) is labelled as taken in the 1970s, but it is likely that this was taken after 1980 (Fig. 8) and prior to the redevelopment of the site in the earlier 1980s. At this point, it can be seen that a lack of maintenance has seen the loss of one tower over Range 1 as well as the removal of a number of ephemeral open-sided units on the south. The final photograph (Fig. 10) was taken following the conversion of the buildings to office and light industrial use (East Anglian Daily Times, 5th December 1985) where is can be seen that all of the towers have been removed apart from a portion of that over Range 4.

5 THE BUILDINGS

- 5.1 As noted in the previous desk-based assessment the outline elements of a number of buildings of 1840s date survive within the existing granary complex, though they have been so heavily altered and rebuilt that the fragmentary remains are difficult to discern (Plate 1). The original 19th century ranges survive in the remaining pilastered brickwork of the outer walls, with later work represented in the use of Fletton bricks, pre-cast concrete elements as well as shuttered and poured concrete structures.
- 5.2 The numerous ranges have been ascribed numbers for ease of description (shown on Fig. 11-13) though in the centre of the complex the relationships between the ranges overlap somewhat with elements of pre-existing structures intruding into the later constructions. A lack of use in the early 1980s heralded a period of deterioration of the buildings and was following by substantial remodelling that included the loss of any early equipment or fixtures and fittings. Most areas have been compartmentalised with the introduction of blockwork and modern studwork partitions as well as new floors to create distinct commercial and light-industrial units and offices. These bear no relation to the historic development of the buildings and are only noted for context where their presence directly impacts on the historic structures. Many of the ranges are now contiguous or divided so that individual units are only accessible from the exterior. The ranges are mostly aligned north-west to south-east though for ease of description this has been reduced to east-west.

- 5.3 A number of buildings (Ranges 1, 2, 3, 6 and 7) retain elements of the mid19th century structures. Though much of the brickwork is painted white, where visible the earlier fabric is of red brick with straight skintles and is characterised by the presence of projecting pilasters with chamfered gault brick corners (Plate 2). In most areas where this brickwork survives, the pilasters only rise to mid-height so that either the brickwork above has been rebuilt, or the original buildings rose to this level. In general, later work appears to include phases of work in Fletton brick and pre-cast and shuttered and poured concrete.
- 5.4 There has evidently been substantial loss, with the removal of all the grain towers that either formed the upper areas of silos or contained hoppers and other equipment for the transference of grain, as well as many early floors and other fabric. However, enough survives to allow the form and construction of some areas to be reconstructed and other clues can provide a general impression of the function or form of particular ranges.
- 5.5 The buildings are described below according to their range numbers though where elements are clearly associated a consideration is given of the linked unit to allow a comprehensive understanding of each range.

Range 1

- 5.6 Building 1 lies at the western end of the complex close to the road. It retains mid-19th century fabric of the form noted above and shares this fabric most pertinently with Range 7, the north end of Range 6 as well as area of Range 3 at low level. It is rectangular in plan and aligned east-west, and although it has been largely rebuilt appears to generally occupy the extent of the historic range at this point.
- 5.7 As it exists, the building is largely constructed of brick (mostly painted white) and rises over two storeys to a pitched and gabled roof covered in what appears to be thin square cement tiles set in a diamond pattern on the north, and corrugated metal sheeting on the south. Though altered substantially on at least three occasions (the most recent being the 1980s remodelling), there are a number of elements that survive of each phase. Evidence within this range and part of Range 3 (west end) retains enough 19th century fabric to tentatively suggest that this range originally formed a maltings range. This evidence is reinforced by the rebuilding of much of the range in Fletton brick that bears features consistent with a maltings. Later alteration saw a change of use with its conversion to a granary range with the introduction of silos for storage that remain in part today.

Exterior

5.8 The west gable end faces Station Hill and is constructed of brick laid in Flemish bond, all painted so the fabric is not visible, but appears to be a mixture of phases (Plate 3). A high central entrance dominates the façade and continues as a tunnel extending through the entire building. The arch is of heavy shuttered concrete and this continues as shuttered concrete vaulting with large ribs along the length of the tunnel. To either side of the entrance, the ground floor has been much altered apart from outer brick piers and has been reconstructed in modern brick and pierced

with wide apertures containing double doors. Each double door has a small adjoining uPVC fixed light. At upper level, there are two blocked window apertures below cambered brick arches and in the gable end is a blocked occulus. Otherwise, this side is festooned with various commercial signs relating to the motor business.

- 5.9 The north side retains the most coherent evidence but the fabric here is again of varying phases (Plate 4). The brickwork on this side is all exposed and at lower level comprises a fairly creased 19th century red brick with straight skintles. This fabric spans five bays divided by projecting brick pilasters with chamfered corners though the east bay has been rebuilt and alterations are evident elsewhere. Much of this brickwork retains limewash but the pilasters are distinguished by gault brick corners. The pilasters rise to first floor level but evidence elsewhere appears to suggest they rose to the full-height of the original building. The most evident phase of work saw the range rebuilt in Fletton brickwork laid in English bond. This fabric spans the entire range at upper level as well as the lower east bay, while buttresses reinforce the rest of the elevation to the west. A series of blocked apertures are visible and although not as coherent as seen on the south (see below), three are visible at the original second floor level. All are small and set below cambered brick arches and have been blocked from the interior so that one original casement survives at the west end. This is a four-pane top-hung casement. At original first floor level three further apertures are present, though the western two are awkwardly inserted between two original pilasters, blocked as above and one top-hung casement survives. No similar apertures are visible at ground floor level between the original pilasters, but at the east end there are two, later blocked apertures that may obscure earlier examples. Otherwise, the elevation has a number of bolts for metal ties and a series of vertical metal girders attached on this side.
- 5.10 As noted, the south side remains fairly coherent and the brickwork is all painted so the fabric is not visible but appears to be largely of a single phase and reflects the appearance of a maltings range with three low floors (though only two exist internally). The brick is laid in English bond and on each floor there appears to have been four small apertures set below cambered brick arches (Plate 5). These have been blocked or obliterated by later insertions and can only be discerned from fragments of brick voussoirs truncated by a later doorway, or lines of queen closers adjoining a latterly rebuilt area. The only area this is not evident is in the second bay at first floor level where the brick has been rebuilt. A number of modern apertures pierce the elevation and contain uPVC windows and doors. Otherwise, there are multiple signs adorning the elevation.
- 5.11 Within the tunnel there is some reworking to the walls either side but the vaulting of the ceiling is all on one phase. The outer walls are of brick, all painted and laid in English bond. No blockings are visible from earlier apertures on either side but there are a number of window apertures and a doorway. These all appear inserted and are modern but may represent remodelling of former apertures. The ceiling is punctuated by nine four-centred arches cast in-situ so that impressions from the timber shuttering remain. This extends to the soffits of the ceiling between the arches and was clearly all cast in a single phase.

Interior

- 5.12 Though externally the window pattern indicates the presence of three fairly low floors, the interior is now divided with two floors and a number of individual compartments for office or light industrial use. This phase of alteration is entirely modern and carried out in the 1980s using softwood for the ceilings and blockwork for the internal partitions, while each unit is given access from the exterior through modern doors. Every floor surface is of concrete though it is not clear which phase of work this is part of.
- 5.13 Historic fabric is visible in places at ground floor level. For example, the former ground floor ceiling height is indicated by the presence of rendered outer wall surfaces to the height of the existing windows, above which a skin of blockwork has been applied. This appears to suggest an offset on which the floor joists rested and is located above the level of the small apertures. Little else of interest remains, though some fabric from the mid-20th century upgrading appears to survive such as a doorway from the south to Room GF04 that retains a brick threshold and concrete lintel.
- 5.14 The first floor of this range is divided by the central tunnel. The space to the north was not accessible but a view through a hole in the ceiling of Room GF01 shows it to be of the same form as that to the south. To the south, a modern staircase in Room GF03 leads to upper level that comprises a single space occupying the entire length of the range (FF01). The floor is entirely modern and bears no relation to its earlier use, and instead the remains of concrete silos are visible at this level from the secondary phase of work. What survives includes shuttered and poured concrete to the outer walls with the internal space formerly divided into eight silos (Plate 6). The concrete is reinforced and the shuttering was in large panels rather than lengths of timber. The lower walls and silo bases were, with much effort, broken out (presumably with the 1980s alterations). At upper level the concrete was poured around the pre-existing roof structure.
- 5.15 The roof structure itself is of typical early 20th century form, perhaps the 1920s or 30s. It is of double-framed king post construction utilising very slender circular sawn softwood members. The king post is slightly shouldered at the head which is pegged (the base is not visible), and slender raking struts rise from the king post to the principal rafters. Struts have been added for further reinforcement. There are two flights of purlins in each pitch supported on cleats, over which the common rafters ride to a ridgeboard.
- 5.16 At the east end of the range, further historic fabric survives. Here a single red brick arch is visible with 19th century red brick above and to the north, though there has been much replacement in Fletton brickwork, and above slender timberwork is infilled with Fletton brickwork (Plate 7).

Range 2

Exterior

At the east end on the south side of Range 1, Range 2 extends as two elements, both retaining brickwork of the original phase, but again much altered (Plate 8). A short element rises over two storeys, the corners framed by the chamfered brick pilasters to full-height. The ground floor is occupied by a modern uPVC shop front, but on the north side a section of brick arch springs from the pilaster and corresponds with a matching arch visible within that suggests an open throughway into which wagons were driven to be loaded. At upper level on the west is a modern uPVC window and the unit has a modern pent roof. To the south, the range continues as a single-storey flat-roofed element, though has been reduced from a hipped roof. The outer brickwork includes corner pilasters as elsewhere and incorporates further 19th century brickwork, laid in Flemish bond and now all painted. though there have been phases of patching and repair in later brick. Two original apertures are visible below gauged brick arches with cambered soffits. Both are blocked and three modern windows and one doorway are later insertions. The south side is framed by the chamfered brick piers, but is otherwise of plain painted brickwork with a modern uPVC shop entrance that replaces a small window visible in earlier photographs.

Interior

5.18 The interior of this range (GF11) is reached from the south and comprises a single open space with plain walls and the ceiling modern and underdrawn. An opening on the north side formerly led to Room GF10a but has been blocked, but a plinth to the east on this wall perhaps indicates the element to the north was an external wall.

Range 3

Exterior

5.19 This range lies on the south-east side of the complex to the east of Range 2 and forms a large distinct building of rectangular plan and aligned east-west. As with Range 1, it is entirely constructed of brick (all painted) of a number of phases. It rises over three storeys to a pitched roof (covered with tiles with modern velux roof lights) that extends approximately three-quarters the length of the range, the final quarter with a flat roof in the area of a former tower (Plate 9). The brickwork is again a mix of 19th century brick at lower level with rebuilding above and is all painted. The earlier brickwork is laid in Flemish bond and spans the ground and first floor levels divided into three wide bays by brick pilasters. Above, the second floor sees a change to brickwork laid in English bond with no pilasters. Most of the existing windows in the western two bays comprise two-light uPVC windows below plain lintels, apparently of concrete, the windows replacing windows visible in earlier photographs that show at least two two-light timber windows (each light with four panes). The eastern bay contains similar windows on the west, but single-pane uPVC lights on the east, the upper east example lies in the area of a lucam visible in

the earlier photographs (Figs. 7-9). The interior of the building is reached through modern doors in the outer bays reached down a series of steps from ground level.

5.20 The west gable end is only visible at upper level and comprises brickwork laid in Flemish bond with two windows with concrete lintels.

Interior

- 5.21 Historic fabric within this range is fairly ephemeral but at ground floor level is open with the ground floor of Range 6. Within the southern area, the upper floor is supported on a series of I-profile steel columns and beams, mostly boxed-in and only visible where modern cladding has been removed. The remaining partitions are generally of modern blockwork.
- 5.22 The first floor is given access from the external flight of steps on the east that leads into Range 6 and for the most part modern partitions define a series of small rooms. Within this modern fabric, a number of I-profile steel stanchions are visible, particularly in the western space (FF14) where the stanchions are well-expressed though boxed-in and earlier fabric survives within the west wall.
- 5.23 The north side of the west wall has two brick piers with chamfered corners that frame a blocked aperture and lie above an archway noted above for Range 2, the south examples enlarged with later brickwork with the construction of Range 3. To the south, there is again some alteration with a solder course of brick visible above a large timber set in the brickwork and strapped at the south end.
- 5.24 The final floor is open to the roof structure, but also open to Range 6 to the north. The existing partition between the two ranges is modern and it is likely that when built the two spaces were laid out as one. The structural elements here include a series of I-profile metal stanchions that support a longitudinal wall-plate that in turn supports both roof structures. The outer walls are again of painted brick and contain the windows noted from the exterior with concrete lintels.
- 5.25 The roof structure itself is of very similar form to that over Range 1 and survives in very good condition, here spanning five bays (Plate 10). The trusses follow the double-framed king post system noted above, but here the shouldered heads are nailed instead of pegged. The tie-beam is strapped and bolted to the king-post, and the principal rafters and tie-beams are similarly strapped. There is a single purlin in each pitch supported on cleats, and although the roof pitches to the rear are lined, the common rafters must ride over to a ridgeboard at the apex.

Ranges 4 and 5

Exterior

5.26 Attached to the east side of Range 3 is a truncated tower range (Plate 16). It is square in plan and of painted brick at lower level, all laid in Flemish bond, but where exposed is consistent with a 20th century date. At low level on the south, two blocked apertures are visible below slender painted lintels. Set immediately above is

a large loading aperture with a concrete lintel and containing modern uPVC doors, as well as a small uPVC window to the west below a concrete lintel.

- 5.27 The interior at ground floor level is given access at the east end though a fireresistant metal door. This has a manufacturer's plaque of the company Bolton Brady formerly based in Bolton. The tower itself rises above the western portion of the unit and houses the remains of silos and this element appears constructed of pre-cast concrete slabs. This formerly rose to higher level.
- 5.28 At the east end, a single-storey range is attached (Range 5). This is clad in modern corrugated metal sheeting but within has a series of structural concrete columns. From here the east elevation of Range 4 is visible where a blocked aperture lies above and below is a low wide aperture framed by a concrete lintel and within the ceiling of the unit is visible and of reinforced shuttered concrete.
- 5.29 The north side of Range 4 reflects the two elements including the tower and low unit to the east where a further fire-resistant door lies within a formerly larger aperture. This side is punctuated by two concrete stanchions of the same form as in Range 5. In this area at ground level a raised platform is of poor quality concrete, poured in-situ with corrugated metal sheet shuttering.

Interior

- 5.30 The interior of this range, given access through the fire-resistant doors largely consists of a single space and incorporates the only surviving tower structure that formerly rose to higher level. At ground floor level, the outer brickwork is all painted and contains a number of blocked apertures, but of relevance is the system of concrete posts and beams that supported the first floor above and subsequently the silo. The columns and beams have chamfered corners and the impressions of the timber shuttering is visible from the in-situ pouring of the concrete.
- 5.31 The upper area is given access from the first floor of Range 3 on the west. At this level the outer walls are of painted brick with some blockings visible. The concrete columns rise from lower level and support a massive concrete structure above forming three silos (Plate 12). Impressions of the shuttering are visible within the concrete and this demonstrates that the lower sections of the silos used timber shuttering, while above the plain open surfaces utilised large plain sheeting of some form.

Range 6

Exterior

- 5.32 This range lies in the centre of the complex between Ranges 2 and 3 on the south and 7 and 9 on the north and contains a long throughway on its north side that continues the tunnel of Range 1 (Plate 13).
- 5.33 Only the east elevation of Range 6 is visible where it frames and oversails the tunnel. This area is again constructed of brick all heavily rebuilt and altered, though 19th century fabric survives marked by a chamfered brick pier on the south side of

the tunnel entrance with brickwork to the south laid in Flemish bond and an almost entirely entombed further pier to the south at the junction with Ranges 3 and 4. The tunnel entrance is high and a steel RSJ forms a lintel. To the south at first floor level is a small uPVC window and a similarly modern door gives access to the interior. This is reached up a series of blockwork and concrete steps below which some Fletton brickwork is visible as elsewhere.

5.34 Within the tunnel, the south side contains the same palimpsest of different brick fabrics, blockings and insertions. Some early brickwork is visible but mostly is much later and the existing windows and doors are all modern and mostly uPVC at ground floor level but with modern timber casements at first floor level, some of which are reduced in size from loading doors. Otherwise there are occasional metal fixings and a pintle is visible.

Interior

- 5.35 As noted above, the ground floor of this range is open with and only given access from Range 3 to the south, while the north side of the range is occupied by the tunnel. The remaining rooms retain only two elements of note. There is a single circular iron stanchion in Room GF18, and on the west side of this space the brick wall contains two blocked apertures below brick arches, much the same as the arch visible at the east end of Range 1 at upper level.
- 5.36 At upper level, the range is reached from the external steps noted above and again the internal partitions are modern. However, Room FF04 retains some evidence within the outer brick walls on the north and south, though is largely incoherent. Scars remain for former internal walls and elsewhere there are stumps of timber that might be rafter feet, perhaps indicating the former roof level of this range and also suggesting that this range did not formerly oversail the tunnel on the north.
- 5.37 The second floor is open from Range 3 to the south and is of similar construction at this level though is narrower and extend further west to abut Range 1. At this end, the formerly external gable end of Range 1 is all covered in rough-cast render but where this has fallen away slender timber studwork is visible with brick (mostly Flettons) infill. In the south-west corner rafter feet protrude, these surviving from a lost roof to the south that formerly lay over Range 2 (Plate 14).
- 5.38 The roof of this range is of identical king-post form as that seen in adjoining Range 3, though here is ceiled at purlin level in modern materials. It spans seven bays.

Ranges 7 and 8

Exterior

5.39 These ranges include two small units between Ranges 1 and 9 (Plate 15). They have been almost entirely altered but retain some evidence of their earlier form. Range 7 comprises a pent-roofed unit with the roof pitch descending from Range 6 to the south. The outer north wall of the range is visible from within Range

8 where the brickwork continues from Range 1 with identical 19th century pilasters, all now painted.

- 5.40 Within the tunnel, the south side of Range 7 is visible and is contiguous with the surrounding fabric but again much altered. Here, there is a double door and window, the door lying opposite a further doorway on the south side of the tunnel. Above, a probable loading aperture has been infilled with blockwork. The roof is steeply-pitched and clad in grey slate.
- 5.41 Range 8 extends as a low single-storey unit with a shallow pitched roof covered with corrugated metal sheeting. This forms a motor workshop and is open-fronted on the north side with modern brick piers. However, even here 19th century fabric survives at the west end in the form of red brickwork and a brick pilaster of gault brick. In addition a wide brick arch has been infilled with modern fabric, but appears to match the arches seen within Range 2 to the south.

Interior

5.42 The interior of Range 7 has a raised concrete floor but on the north, 19th century brick (heavily painted) survives. The south side is of later brickwork and blockwork lines the remaining walls. A modern staircase on the south given access to a room housed in the pent-roofed area of Range 7 that again is much remodelled, and on the west to Range 1 displays the original brick pilasters with some Fletton brick above, a blocked loading doorway, and areas of roughcast render indicating this wall was once external at high level. Other partitions are modern at the east end and the roof structure is lined in modern boarding but above simple rafters are visible.

Range 9

Exterior

- 5.43 Range 9 lies on the north side of the complex and abuts Ranges 7 and 8 on the west. It is part of the 1930s phase of work but is again a rebuilding of an earlier range (Plate 16). The building is rectangular in plan, aligned east-west and rises over four storeys with attic space. It is of regular and consistent construction in Fletton brick (unpainted on the north and west) with a change in bonding pattern between second and third floor level from English bond at lower level and Flemish bond at upper but all of a single phase. As with other ranges, there has been much alteration with original apertures blocked or bricked up from within.
- 5.44 The west gable end is obscured at ground floor level by Ranges 7 and 8, apart from a short section at the north end that contains a window. Otherwise the windows vary in size at each floor but are all similar with the same splayed concrete voussoirs. There are three on each floor, and all are blocked apart from the north example at each floor which have been bricked up from within and retain the original windows. These are metal-framed casements and consist of four eight-pane lights with a narrow central light of four panes with a small opening pane at the top.

- 5.45 The north elevation continues the brickwork form as on the west with English bond Fletton brickwork at lower level and Flemish bond above. The window pattern changes on this side with almost continuous glazing at ground, first and second floor with each floor divided by a continuous concrete lintel along the entire length of the building. At each level are nine long windows extending along the length of the building, apart from the third floor which is of plain brickwork. As on the west side, a number of windows have been bricked up.
- 5.46 The interior of the tunnel presents the south side of Range 9 although retains at some earlier fabric. The brickwork is largely laid in English bond and is continuous from Range 7 to the west. Again fragments of earlier brickwork is visible, but in general is pierced by a number of apertures with steel lintels. Further blocked loading apertures lie above. At the east end, earlier brickwork is laid in Flemish bond and all painted as elsewhere. This may remain from the 19th century phase or the earlier 20th century phase and contains a small blocked aperture with a brick arch over. There is an area of rebuilt brickwork and finally a stretch of earlier brick with an inserted doorway. This brick is heavily scarred from passing carts (reminiscent of the earlier documents that record the tunnel as only just accommodating the carts). At first floor level two windows have steel lintels and one to the east with a concrete lintel.

Interior

- 5.47 Internally, no fabric survives from the earlier building positioned in this area on the 19th century maps, though as noted above some external fabric survives on the exterior in the south-east corner.
- 5.48 As with all other ranges, the interior has been divided by modern partitions into offices and compartments. The outer walls consist of the earlier 20th century Fletton brick construction and between the modern partitions the original internal construction is expressed. At ground floor level, this is of ten pre-cast concrete columns supporting a system of steel beams of I-profile and dividing the range into six bays. These columns were pre-cast and not poured in-situ and display chamfered and stopped edges (Plate 17).
- 5.49 The eastern two bays have been altered, perhaps in the 1950s or 60s with the introduction of large concrete columns visible at ground floor level that rise through the floors to upper level and support a massive concrete silo. These large columns have chamfered corners, but were poured in situ and the impressions of the shuttering are visible (Plate 18). These do not respect the positions of the windows on the north side.
- 5.50 At first floor level, the ten stanchions for the later silos continue in the same form. However, the original structural concrete columns instead continue at this level with steel I-profile stanchions. All partitions are modern with new WCs and staircases. The second floor of this range again continues the form with boxed-in I-profile stanchions to the west, but to the east the massive columns rise to support the base of the concrete silo. The pattern of the timber shuttering is very well expressed here. Otherwise, there are two hatches in the soffit of the silo base that would have connected to pipework to transfer the grain around the complex.

5.51 This range rises higher than any other range within the complex and the final, third floor is open to the roof structure. The outer walls are of exposed Flettons with the blocked apertures noted from the exterior visible, while the silo continues in the east bays at this level with the concrete clearly poured around the timberwork of the roof structure. As with the roof structures over Range 3 and 6, the roof here is of double-framed slender king-post form, with four trusses dividing the space into five bays and here the common rafters are exposed and not underdrawn as elsewhere (Plate 19).

Range 10

- 5.52 Range 10 is the only building that is independent of the main complex and lies on the north-west side of the site. It adjoins the road but is set higher than road level so that it is given access from the south-east and currently forms a pharmacy.
- 5.53 The range is a low single storey range extending north-east to south-west with a pitched roof and a single tall chimney stack. It is constructed of a mix of flintwork to the road and brick elsewhere, while the south-east side is entirely modern and replaces the double doors visible in early photographs.

6 DISCUSSION

- 6.1 Technical analysis of the complex at Thurston Granary complements and enhances much of the documentary assessment and reveals that the mid-19th century complex survives in outline but that the original ranges have been almost entirely rebuilt so that only fragmentary remains of the outer walls survive as well as small clues within the later fabric. Following the mid-19th century phase, there appears to have been two or three substantial phases of rebuilding and remodelling before the large-scale redevelopment of the 1980s, as well as what must have been numerous gradual alterations undertaken over time. The physical fabric suggests two principal phases of remodelling in the 20th century, and the historic fabric is consistent with a date in the 1920s or 30s for the first phase and a mid-20th century phase, probably the 1950s or 60s, for the second. This fits well with the documentary evidence that records changes in ownership around these times; changes in ownership often precede upgrading of buildings.
- 6.2 Of the original buildings, original fabric includes a typical 19th century red brick used for the outer walls, which are punctuated by brick pilasters and given decorative effect with the use of chamfered gault brick for the corners. This may provide a clue as to the date for construction. The use of red brick with gault brick dressings can be seen on the former railway station building that was built in 1846 by Frederick Barnes of Ipswich (https://www.historicengland.org.uk/listing/the-list Entry no. 1032434). It can be suggested that the original granary buildings were constructed at the same time at the railway was first introduced, in 1846, or perhaps very slightly later and was clearly part of the general development of the area that occurred alongside the introduction of the railway and railway building as well as the Fox and Hounds public house.

- 6.3 This original fabric is seen in many of the original ranges including Ranges 1, 2, 3, 6, and 7, but additional fabric survives at the east end of Range 1 at upper level and within the west end of Range 6. These small brick arches appear to define a distinct structure at the end of Range 1, and may form the remains of a kiln structure attached to a maltings. They are not entirely of typical form but a subsequent phase of work associated with Range 1 may reinforce this suggestion, where three low floors were present with multiple small apertures for ventilation. Again the evidence is not entirely clear, as cartographic evidence suggests that a tunnel or division existed within Range 1 in 1884 prior to it's rebuilding in Fletton brick and prior to the insertion of the existing tunnel with its concrete ribbed ceiling.
- 6.4 This second phase was carried out in the early 20th century, and the fabric and construction is consistent with a date in the 1920s or 30s and saw many of the 19th century buildings rebuilt or heightened in Fletton brickwork and most ranges reroofed. This work likely took place under the ownership of Harold Clarke who greatly increased the fortunes of the granary complex.
- 6.5 Some concrete was used in the earlier 20th century phase, particularly the poured concrete of the tunnel and upper silos in Range 1 and the columns in Range 9, and this work was of good quality with care and attention paid to its execution, for example with the use of chamfered and stopped corners to the columns. A major phase of work in the middle of the century, however, saw the introduction of new, massive concrete silos in the east end of Range 9 and within Range 4. This was also of poured concrete but was clearly designed for strength in order to support the weight of a greater quantity of grain than previously and is demonstrated through the creation of huge columns, almost twice the size of those used in the previous phase and without the stopped chamfers of the earlier work.
- 6.6 The 1980s saw the end of the granary as a commercial venture, and subsequently the loss of much historic fabric that would have allowed a more detailed evolution to be reconstructed. Nevertheless, what survives reflects the repeated and rapid expansion and development of a business that was established at a time of great potential alongside the introduction of the railway in Thurston.

ACKNOWLEDGEMENTS

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SSEW 1983 Soil Survey of England and Wales: Legend for the 1:250,000 Soil Map of England and Wales Harpenden, Rothamsted Experimental Station/Lawes Agricultural Trust

Thurston History Group 2000 Thurston, Suffolk 1800-1970

Web resources

www.elymrc.org.uk

https://www.historicengland.org.uk/listing/the-list

APPENDIX 1 CARTOGRAPHIC SOURCES

Date	Description	Fig No.	Scale	Location
1841	Tithe map of Thurston	3	-	SRO
1884	First Edition Ordnance Survey map; sheet	4	25": 1 mile	SRO
	XLV.5			
1904	Second Edition Ordnance Survey map;	5	25": 1 mile	SRO
	sheet XLV.5			

APPENDIX 2 TITHE APPORTIONMENT

No	Landow	ner	Owner	Description	Cultivation	Quantity (A. R. P)
243	Rev.	Matthew	John	Thedwastre	Arable	13. 0. 0
	Armstrong		Last	still		
244	Rev.	Matthew	Himself	Thedwastre	Plantation	5. 0. 0
	Armstrong			still plantation		
254	Bennett	Philip	William	Thedwastre	Arable	3. 1. 13
	Esq.	-	Smith	still		

PLATES



Plate 1 View of the complex, taken from the south-west (DP 02)



Plate 2 Detail of the north elevation (Range 1) showing original brick pilaster with chamfered gault brick corners, taken from the north (DP 59)



Plate 3 West elevation of Range 1, taken from the west (DP 73)



Plate 4 North elevation of Range 1, taken from the north (DP 55)



Plate 5 South elevation of Range 1, taken from the south (DP 3)



Plate 6 First floor of Range 1 (FF01) showing removed lower concrete structure of the silos, taken from the west (DP 120)



Plate 7 First floor of Range 1 (FF01) showing east wall with earlier brick arch infilled and much rebuilt in Flettons, taken from the west (DP 127)



Plate 8 West elevation of Range 2, taken from the west (DP 10)



Plate 9 West elevation of Range 3, taken from the south-east (DP 14)



Plate 10 Second floor of Range 3 (SF01) showing the king post roof trusses, taken from the south-west (DP 182)



Plate 11 View of the south side of the complex, taken from the south-east (DP 16)



Plate 12 First floor of Range 4 (FF13) showing the underside of the concrete hoppers supported on large concrete columns, taken from the south-east (DP 163)



Plate 13 East side of Range 6 showing the tunnel and replacement uPVC windows, taken from the east (DP 31)



Plate 14 Second floor of Range 6 (SF04) showing the south wall (west end) where the stumps of rafters survive from a lost adjoining roof structure, taken from the northeast (DP 190)



Plate 15 View of Range 8 with the roof pitches of Ranges 7 and 6 above, taken from the north (DP 67)



Plate 16 View of Range 9, taken from the north-west (DP 63)



Plate 17 Detail of an original pre-cast concrete column in Range 9 (GF21), taken from the south (DP 97)



Plate 18 Interior of Range 9 showing pre-cast concrete pillar system supporting the structure above as well as concrete columns of larger profile inserted at the east end (GF21-22), taken from the south (DP 96)



Plate 19 Third floor of Range 9 (TF01) showing king-post roof truss, taken from the north-east (DP 154)

PHOTOGRAPHIC INDEX



DP 1
West elevation of Range 1, taken from the southwest



DP 3 South elevation of Range 1, taken from the south



DP 5
Detail of the south elevation (Range 1) showing blocked aperture at low level, taken from the south



DP 2 View of the complex, taken from the south-west



DP 4
Detail of the south elevation (Range 1) showing small blocked apertures marking three original floor levels, taken from the south



DP 6
Detail of the south elevation (Range 1) showing small blocked apertures marking three original floor levels, taken from the south



DP 7

Detail of the south elevation (Range 1) showing top of cambered brick arch to a blocked aperture, taken from the south



DP 9

West elevation of Range 6 (north end), taken from the west



DP 11

Detail of the west elevation of Range 2 showing 19th century brickwork and brick voussoir over the window aperture, taken from the north-west



DP 8

Detail of the south elevation (Range 1) showing left side of a blocked aperture later truncated by a doorway, taken from the south



DP 10

West elevation of Range 2, taken from the west



DP 12

South elevation of Ranges 1, 2 and part of Range 3, taken from the south



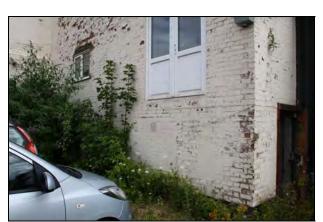
DP 13

South elevation of Ranges 2 and 3 with the tower (Range 4) rising on the right, taken from the southwest



DP 15

Detail of the brickwork on the south side of Range 3 showing earlier lower brickwork and pilaster and later brickwork above, taken from the south



DP 17

Detail of the south side of Range 4 showing blocked aperture at low level, taken from the south-east



West elevation of Range 3, taken from the southeast



View of the south side of the complex, taken from the south-east



DP 18

Detail of the east side of Range 4 showing fire resistant door, taken from the east



DP 19

Manufacturer's plaque on the fire resistant door on the east side of Range 4, taken from the east



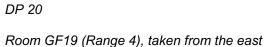
DP 21

Room GF19 (Range 4), taken from the south-east



DP 23

Room GF27 (Range 9), taken from the east





DP 22

South wall of Room GF19 (Range 4) showing blocked apertures, taken from the north



DP 24

West side of Room GF27 (Range 5) showing blocked apertures on the east side of Range 4 at upper level, taken from the south-east



DP 25

East side of Range 4 at low level showing reinforced concrete ceiling, taken from the south



DP 27

North elevation of Range 4 (west side), taken from the north-east



DP 29

Detail of the north side of Range 4 showing fire resistant door, taken from the north



DP 26

East side of Range 4 at low level showing reinforced concrete ceiling, taken from the south



DP 28

North elevation of Range 4 (east side), taken from the north



DP 30

Manufacturer's plaque on the fire resistant door on the north side of Range 4, taken from the north



DP 31 East side of Range 6 showing the tunnel and replacement uPVC windows, taken from the east



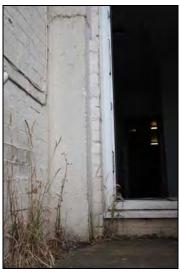
DP 33 Steps on the east side of Range 6 leading to first floor level, taken from the east



DP 35 View of Range 6 (left) abutting Range 9 (right), taken from the east



DP 32
Detail of the east side of Range 6 showing earlier brickwork at low level with corner pier, taken from the east



DP 34
Detail of the east side of Range 6 showing earlier brickwork at first floor level, taken from the east



DP 36
East end of Range 9, taken from the south-east



DP 37

Steps on the east side of Range 9 leading to first floor level, taken from the south-east



South elevation of Range 9 (east end) showing scarring from the movement of vehicles along the tunnel, taken from the south



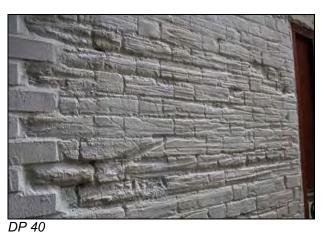
View of the tunnel below Ranges 6 and 1, taken from the east

DP 41



East end of Range 9 at upper level showing alterations including the rebuilding of the corner and blocked apertures, taken from the south-east

DP 38



Scarring on the south elevation of Range 9 (east end) from the movement of vehicles along the tunnel, taken from the south-west



View of the tunnel below Ranges 6 and 1 , taken from the east

DP 42



DP 43 View of the tunnel below Ranges 6 and 1 , taken from the east



DP 45
View of the tunnel below Ranges 1 and 6, taken from the west



DP 47 Detail of the brickwork on the south side of the tunnel (Range 1), taken from the north



DP 44 South side of the tunnel (Range 6), taken from the north-west



DP 46 View of the tunnel below Range 1 showing shuttered concrete arches, taken from the east



DP 48
View of the tunnel below Range 1 showing shuttered concrete arches, taken from the east



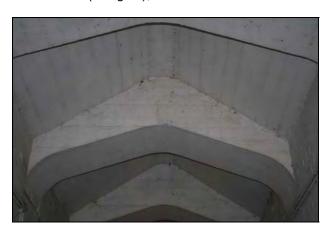
DP 49

Detail of the south side of the tunnel (Range 6: west end) showing earlier aperture infilled with smaller doorway, taken from the north-east



DP 51

Detail of the shuttered concrete vaulting and arches in the tunnel (Range 1), taken from the east



DP 53

Detail of the shuttered concrete vaulting and arches in the tunnel (Range 1), taken from the east



DP 50

Detail of the north side of the tunnel (Range 6: west end) showing wide aperture, taken from the southeast



DP 52

Detail of the shuttered concrete vaulting and arches in the tunnel (Range 1), taken from the east



DP 54

Detail of the shuttered concrete arches in the tunnel (Range 1), taken from the south



DP 55

North elevation of Range 1, taken from the north



DP 56

Detail of the north elevation (Range 1) showing original brickwork and pilasters with later Fletton brick construction, taken from the north



DP 57

Detail of the north elevation (Range 1) showing original brickwork and pilasters with later Fletton brick construction and small windows, taken from the north



DP 58

Detail of the north elevation (Range 1) showing original brickwork, taken from the north



DP 59

Detail of the north elevation (Range 1) showing original brick pilaster with chamfered yellow brick corners, taken from the north



DP 60

Detail of the north elevation (Range 1) showing small window added as part of the secondary building phase, taken from the north



DP 61

West elevation of Range 9 (left) and north elevation of Range 1 (right) with Range 8 visible in the centre, taken from the west



DP 62

View of Ranges 9 and 1 with Ranges 8 and 7 visible between, taken from the north-west



DP 63

View of Range 9, taken from the north-west



DP 64

Metal-framed window on the west elevation of Range 9 (second floor) bricked up from within, taken from the west



DP 65

West elevation (Range 9) showing blocked window apertures, taken from the west



DP 66

North elevation (Range 9) showing narrow windows bricked up from within, taken from the north



DP 67

View of Range 8 with the roof pitches of Ranges 7 and 6 above, taken from the north



DP 69

South wall of Room GF09 (Range 8) showing brick pilasters, taken from the north-west



DP 71

West elevation of Range 8 showing brickwork pilaster with a large adjoining brick arch, taken from the west



DP 68

South wall of Room GF09 (Range 8) showing brick pilasters, taken from the north



DP 70

View of the roof over Range 7 abutting Range 1 on the right, taken from the north



DP 7

View of Range 1 with Ranges 7 and 8 on the left, taken from the north-west



DP 73

West elevation of Range 1, taken from the west



DP 74

South elevation of Ranges 3 and 4, taken from the south



DP 75

South-east elevation of Range 10 with Range 1 to the right, taken from the south-east



DP 76

South-east elevation of Range 10, taken from the south-east



DP 77

North-west elevation of Range 10, taken from the north-west



DP 78

Room GF01 (Range 1), taken from the east



DP 79

Room GF01 (Range 1), taken from the west



DP 81

Room GF03 (Range 1), taken from the west



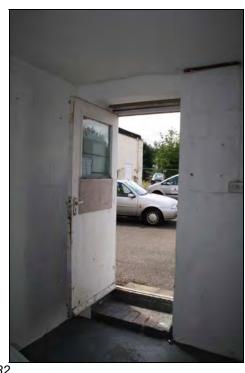
DP 83

Brick threshold in the doorway on the east side of Room GF04 (Range 1), taken from the north-west



DP 80

Room GF03 (Range 1), taken from the east



DP 82

Doorway on the east side of Room GF04 (Range 1), taken from the north-west



DP 84

Pre-cast concrete lintels over the doorway on the east side of Room GF04 (Range 1), taken from the north-west



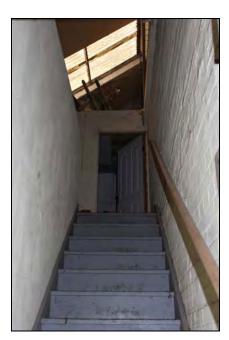
DP 85

Blockwork internal walls and inner skin (Range 1: GF04), taken from the south-west



DP 87

Room GF08 (Range 7) showing both brickwork and blockwork walls, taken from the west



DP 89

Modern staircase inserted on the south side of Room GF08 (Range 7), taken from the west



DP 86

Blockwork internal walls with blockwork added above the lower brickwork on the right (Range 1: GF02), taken from the west



DP 88

Room GF08 (Range 7) showing brick wall at the west end and raised concrete floor, taken from the east



DP 90

Interior of Range 9 showing pre-cast concrete pillar system supporting the structure above (GF24-25), taken from the north-west



DP 91

Interior of Range 9 showing pre-cast concrete pillar system (left) and blockwork wall (GF24), taken from the south-west



DP 93

Narrow windows on the north side of Room GF24 (Range 9, taken from the south



DP 95

Interior of Range 9 showing pre-cast concrete pillar system supporting the structure above (GF26 and 24), taken from the south



DP 92

Metal-framed window on the west side of Room GF24 (Range 9), taken from the east



DP 94

Interior of Range 9 showing pre-cast concrete pillar system supporting the structure above (GF24 and 26), taken from the north-west



DP 96

Interior of Range 9 showing pre-cast concrete pillar system supporting the structure above as well as concrete columns of larger profile inserted at the east end (GF21-22), taken from the south



DP 97 Detail of an original pre-cast concrete column in Range 9 (GF21), taken from the south



DP 99
Detail of one of a system of ceiling beams supporting the floor above (Range 9: GF21) showing I-profile joist, taken from the south-west



DP 101
East end of Room GF22 (Range 9) showing
combination of original and later concrete columns
with double doors to the exterior, taken from the
west



DP 98
Detail of an original pre-cast concrete column in Range 9 (GF21) showing chamfered and stopped corners, taken from the south



DP 100 North side of Room GF23 (Range 9) showing external brick wall and narrow windows, taken from the south-east



DP 102 North side of Room GF22 (Range 9) showing external brick wall and narrow windows bisected by later concrete columns, taken from the south



DP 103

Interior of Room GF11 (Range 2), taken from the south



DP 105

Blocked brick arch on the east side of Room GF10 (Range 6) relating to the buildings former use as a maltings, taken from the west



DP 107

Blocked brick arch on the east side of Room GF10 (Range 6) relating to the building's former use as a maltings, taken from the west



DP 104

Brick plinth on the north side of Room GF11 (Range 2), taken from the south-west



DP 106

Brickwork of at least two phases in Room GF10 (Range 6), taken from the north-west



DP 108

Large brick arch on the east side of Range 2 (GF10a), taken from the west



DP 109

Interior of Room GF11 (Range 2), taken from the north



DP 111

Interior of Range 3 (GF12) with boxed-in steel joists supporting the floor above, taken from the southwest



DP 113

Interior of Range 3 (GF12) showing boxed-in steel joists supporting the floor above, taken from the south-west



DP 110

South elevation of Range 3 (east end) showing brick pilaster on the corner, taken from the southwest



DP 112

Interior of Range 3 (GF15), taken from the southwest



DP 114

Blocked brick arches in Range 6 (GF18) associated with the building's former use as a maltings, taken from the east



DP 115

Brick pier and corbel in Range 6 (GF18) supporting the boxed-in joist above, taken from the north-east



DP 117

Interior of Range 6 (GF14), taken from the south



DP 119

First floor of Range 1 (FF01) showing interior of a concrete silo, taken from the south



DP 116

Interior of Range 6 (GF18) showing modern partitions and early circular stanchion supporting the ceiling above, taken from the west



DP 118

Interior of Range 6 (GF13), taken from the south



DP 120

First floor of Range 1 (FF01) showing removed lower concrete structure of the silos, taken from the west



DP 121

First floor of Range 1 (FF01) showing removed lower structure of the silos exposing the reinforced concrete fabric, taken from the north-east



DP 123

First floor of Range 1 (FF01) showing interior of a concrete silo, taken from the south



DP 125

View of the roof structure over Range 1 (FF01) with the later concrete formed around the pre-existing timber, taken from the south



DP 122

First floor of Range 1 (FF01) showing interior of a concrete silo where the concrete was formed around the pre-existing roof truss, taken from the north-east



DP 124

First floor of Range 1 (FF01) showing interior of a concrete silo where the concrete was formed around the pre-existing roof truss, taken from the north-east



DP 126

View of the roof structure over Range 1 (FF01) with the later concrete formed around the pre-existing timber, taken from the south



DP 127

First floor of Range 1 (FF01) showing east wall with earlier brick arch infilled and much rebuilt in Flettons, taken from the west



DP 129

First floor of Range 1 (FF01) showing concrete walkway at the east end, taken from the south



DP 131

First floor of Range 9 (FF16) showing boxed in Iprofile stanchion and large concrete column, taken from the south-east



DP 128

First floor of Range 1 (FF01) showing east gable end showing brickwork infilling timber studwork and blocked doorway formerly leading from the east onto the concrete walkway, taken from the southwest



DP 130

Upper floor of Range 7 (FF02) showing much altered and rebuilt west wall, taken from the east



DP 132

First floor of Range 9 (FF17) showing large concrete columns inserted into the building, taken from the south-west



DP 133

First floor of Range 9 (FF17) showing large concrete columns either side of a modern door and a blocked window, taken from the south-west



DP 135

First floor of Range 9 (FF22) showing boxed in Iprofile steel stanchions and modern internal partitions, taken from the south-east



DP 137

First floor of Range 9 (FF24) showing south wall with blocked loading door, taken from the north



DP 134

First floor of Range 9 (FF17) showing large concrete columns added on the right and modern internal partitions, taken from the east



DP 136

First floor of Range 9 (FF21) showing south wall with various alterations such as blockwork infilling a loading door, taken from the north-east



DP 138

Second floor of Range 9 (SF07) showing boxed in Iprofile steel stanchions, taken from the south-east



Second floor of Range 9 (SF11) showing the underside of the concrete hoppers supported on the large concrete columns, taken from the north



DP 141

Second floor of Range 9 (SF011) showing the underside of the concrete hoppers supported on the large concrete columns, taken from the south



DP 143

Second floor of Range 9 (SF09) showing rebuilt south wall with modern blockwork behind a brick pier, taken from the north



DP 140

Second floor of Range 9 (SF11) showing the underside of the concrete hoppers supported on the large concrete columns, taken from the north



DP 142

Second floor of Range 9 (SF09) showing rebuilt south wall with modern blockwork behind a brick pier, taken from the north



DP 144

Staircase inserted into Range 9 to give access from second floor to third floor level, taken from the east



DP 145

Second floor of Range 9 (SF011) showing the underside of the concrete hoppers supported on the large concrete columns, taken from the west



DP 146

Second floor of Range 9 (SF07) showing boxed in Iprofile steel stanchions, taken from the north-east



DP 147

Second floor of Range 9 (SF07) showing boxed in Iprofile steel stanchions, taken from the north-west



DP 148

Second floor of Range 9 (SF07) showing boxed in Iprofile steel stanchions, taken from the south-west



DP 149

Third floor of Range 9 (TF01) showing outer Fletton brick walls with blocked apertures, taken from the east



DP 150

Third floor of Range 9 (TF01) showing detail of a roof truss with metal strapping securing the principal rafter and tie-beam, taken from the west



DP 151

Sample of Fletton brickwork on the west side of Range 9 (TF01), taken from the east



DP 152

Third floor of Range 9 (TF01) showing detail of a roof truss with metal strapping securing the king post and tie-beam, taken from the east



DP 153

Third floor of Range 9 (TF01) showing king-post roof truss, taken from the north-east



DP 154

Third floor of Range 9 (TF01) showing king-post roof truss, taken from the north-east



DP 155

Third floor of Range 9 (TF01), taken from the north



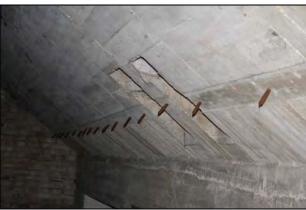
DP 156

Third floor of Range 9 (TF01), taken from the southeast



DP 157

Third floor of Range 9 (TF01) showing west side of the concrete hoppers, taken from the south



DP 158

Third floor of Range 9 (TF01) showing the west side of the concrete hoppers, taken from the south



DP 159

Third floor of Range 9 (TF01) in the area of the concrete hoppers showing the impressions of the timber shuttering and timber remaining from the installation of the concrete, taken from the west



DP 160

First floor of Range 6 open with Range 3 (FF09), taken from the north



DP 161

First floor of Range 4 (FF13) showing the underside of the concrete hoppers supported on large concrete columns, taken from the south-west



DP 162

First floor of Range 4 (FF13) showing the underside of the concrete hoppers supported on large concrete columns, taken from the south-east



DP 163

First floor of Range 4 (FF13) showing the underside of the concrete hoppers supported on large concrete columns, taken from the south-east



DP 165

First floor of Range 3 (FF12), taken from the north



DP 167

First floor of Range 3 (FF10) showing modern internal partitions, taken from the east



DP 164

First floor of Range 4 (FF13) showing the west wall with brickwork and modern blockwork to the left, taken from the east



DP 166

First floor of Range 3 (FF16), taken from the southwest



DP 168

First floor of Range 3 (FF14), taken from the northeast



DP 169

First floor of Range 3 (FF14) showing the altered west wall (north end), taken from the east



DP 171

First floor of Range 3 (FF14) showing an original chamfered brick pilaster of a formerly external wall entombed within a later brick pier, taken from the south-east



DP 173

Detail of the first floor of Range 3 (FF14) showing the altered west wall (south end) with metal strapping to the timber elements, taken from the east



DP 70

First floor of Range 3 (FF14) showing an original chamfered brick pilaster of a formerly external wall entombed within a later brick pier, taken from the north-east



DP 172

First floor of Range 3 (FF14) showing the altered west wall (south end), taken from the east



DP 174

First floor of Range 3 (FF14), taken from the southwest



DP 175

First floor of Range 3 (FF14), taken from the northwest



DP 177

First floor of Range 6 (FF04) showing evidence for a lower roof structure, taken from the north-east



DP 179

First floor of Range 6 open with Range 3 (FF09), taken from the south



DP 176

First floor of Range 6 (FF04), taken from the east



DP 178

First floor of Range 6 (FF04), taken from the southwest



DP 180

Second floor of Range 3 (SF02), taken from the north-west



DP 181

Second floor of Range 3 (SF01), taken from the west



DP 183

Second floor of Range 3 (SF01) showing detail of a roof truss with metal strapping securing the principal rafter and tie-beam, taken from the west



DP 185

Second floor of Range 3 (SF01) showing detail of a roof truss with timber cleat supporting the purlin, taken from the south-west



DP 182

Second floor of Range 3 (SF01) showing the king post roof trusses, taken from the south-west



DP 184

Second floor of Range 3 (SF01) showing detail of a roof truss with metal strapping securing the king post and tie-beam, taken from the west



DP 186

Second floor of Range 3 (SF01) showing detail of a timber bolted to a truss (later enclosed by modern partitions), taken from the west



DP 187

Second floor of Range 3 (SF06) showing modern partitions and area open to Range 6, taken from the south



DP 189

Second floor of Range 6 (SF04), taken from the west



DP 191

Second floor of Range 6 (SF04) showing pulley system for lifting goods through the floors, taken from the west



DP 188

Second floor of Range 3 (SF01) showing slender partition between this range and Range 6, taken from the south



DP 190

Second floor of Range 6 (SF04) showing the south wall (west end) where the stumps of rafters survive from a lost adjoining roof structure, taken from the north-east



DP 192

Second floor of Range 6 (SF03) showing west end enclosed by the modern staircase on the left, taken from the north



DP 193

Second floor of Range 6 (SF03) showing west end with rough-cast render over slender studwork infilled with Fletton bricks, taken from the east



DP 194

Second floor of Range 6 (SF03) showing the south wall (west end) where the stumps of rafters survive from a lost adjoining roof structure, taken from the north



DP 195

Second floor of Range 6 (SF04), taken from the east



DP 196

Detail of the north roof pitch on the second floor of Range 6 (SF04), taken from the south



DP 197

Detail of the north wall on the second floor of Range 6 (SF04) showing slender I-profile stanchions later infilled with blockwork and other fabric, taken from the south



DP 198

Second floor of Range 6 (SF04) showing detail of a roof truss with metal strapping securing the principal rafter and tie-beam, taken from the west



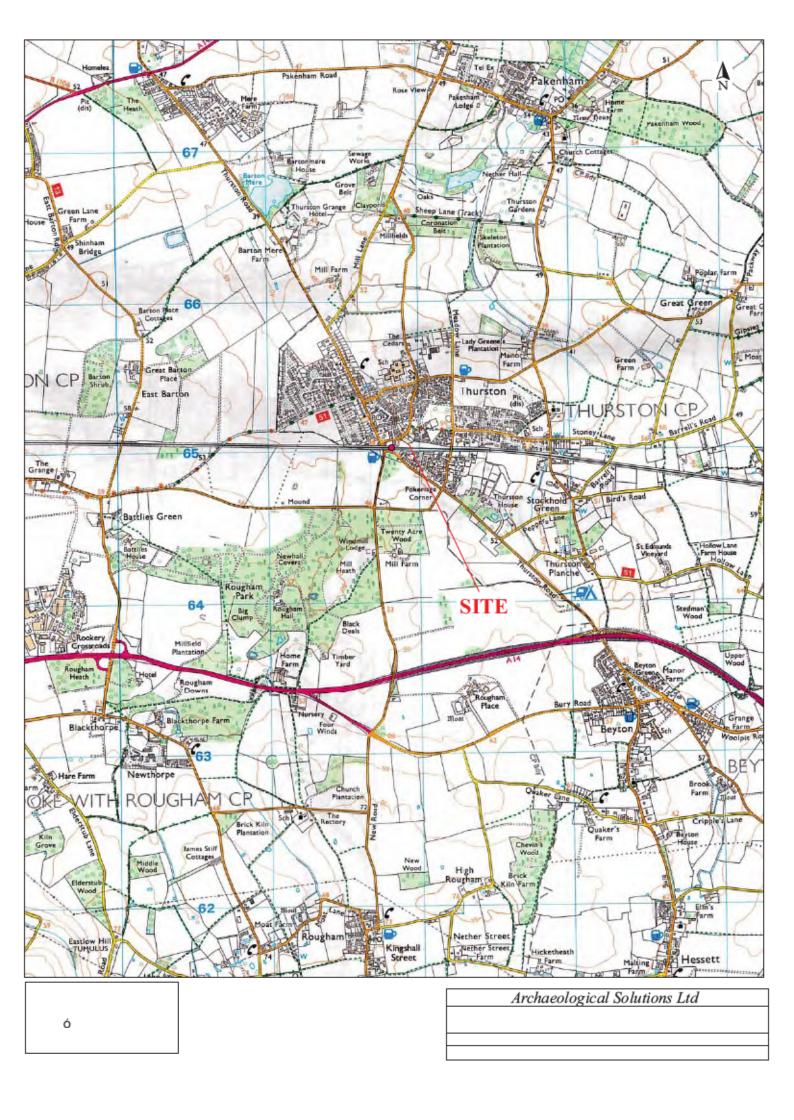
DP 199

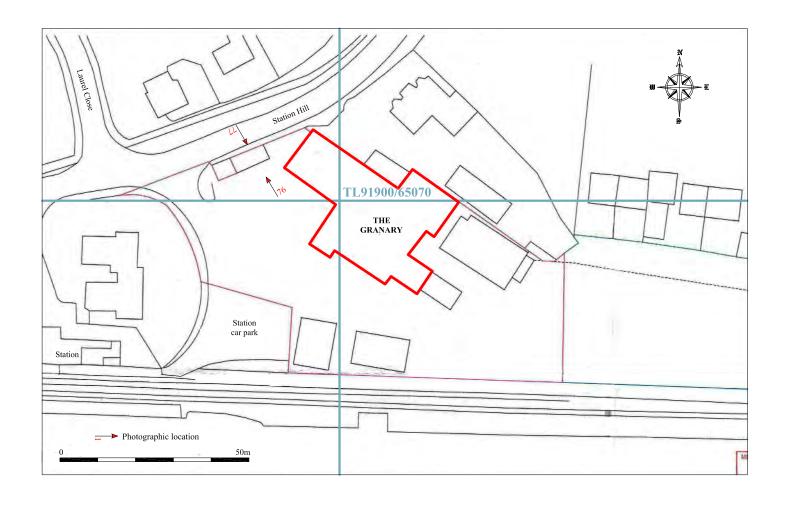
Second floor of Range 6 (SF04) showing the king post roof trusses underdrawn at purlin level, taken from the north-east



DP 200

Second floor of Range 6 (SF05), taken from the west





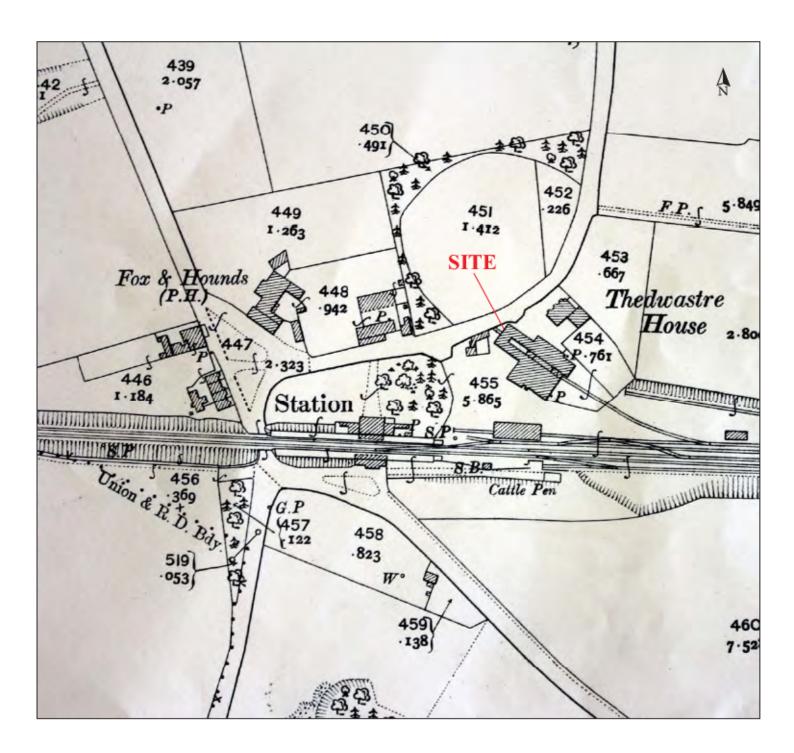
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Detailed site location plan Fig. 2 Detailed site Scale 1:1000 at A4 Thurston Granary, Suffolk (P6272)

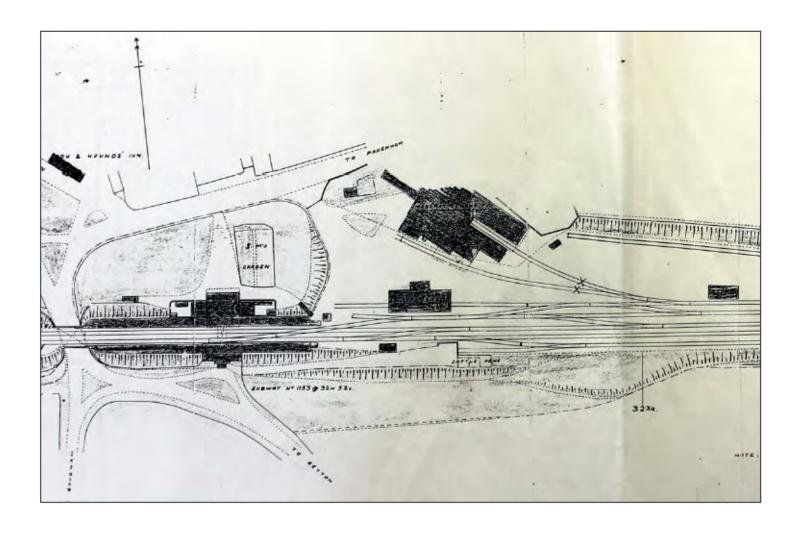


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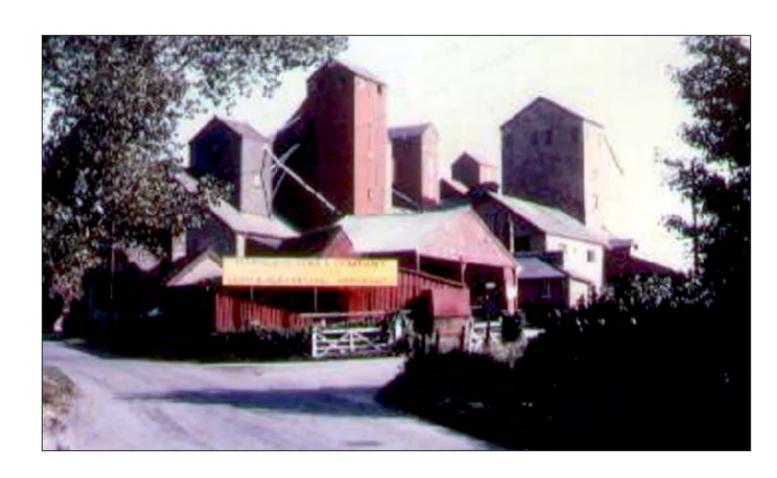


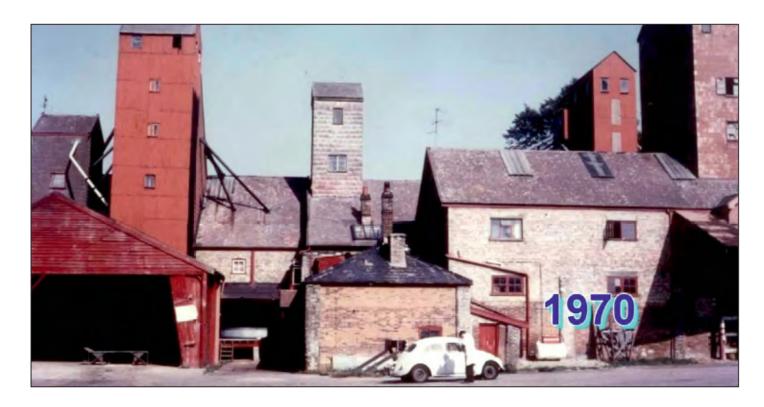


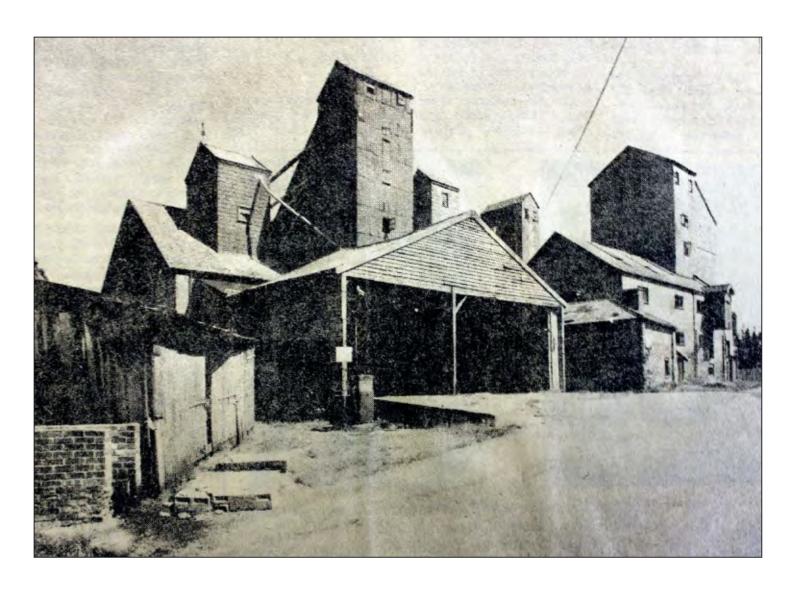
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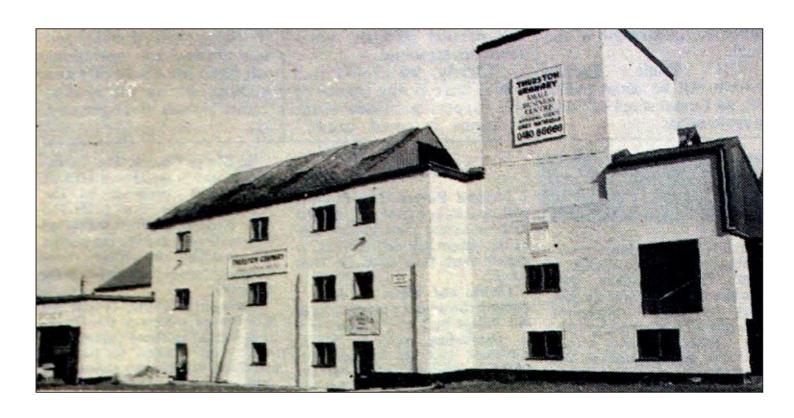


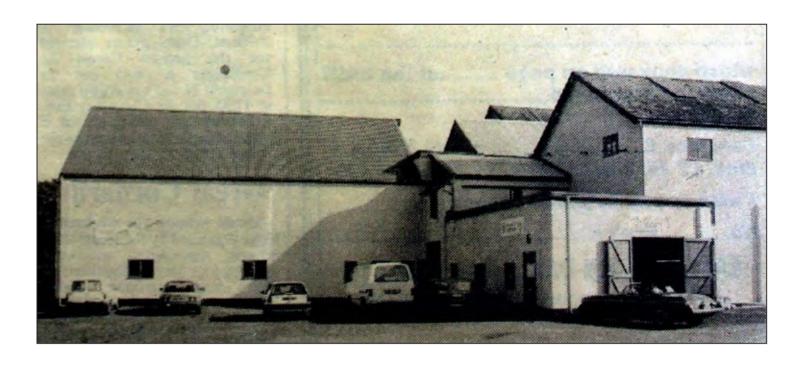


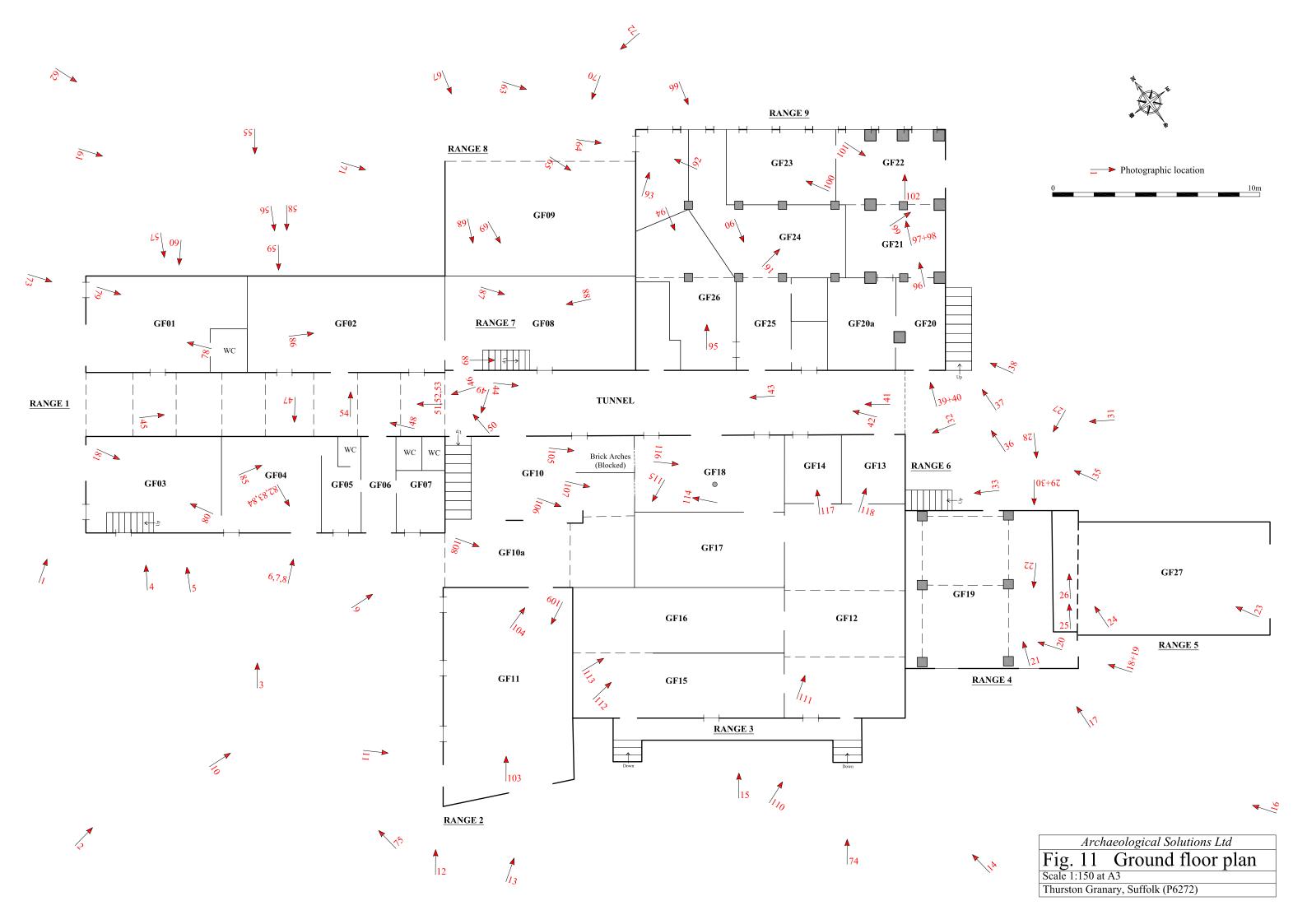


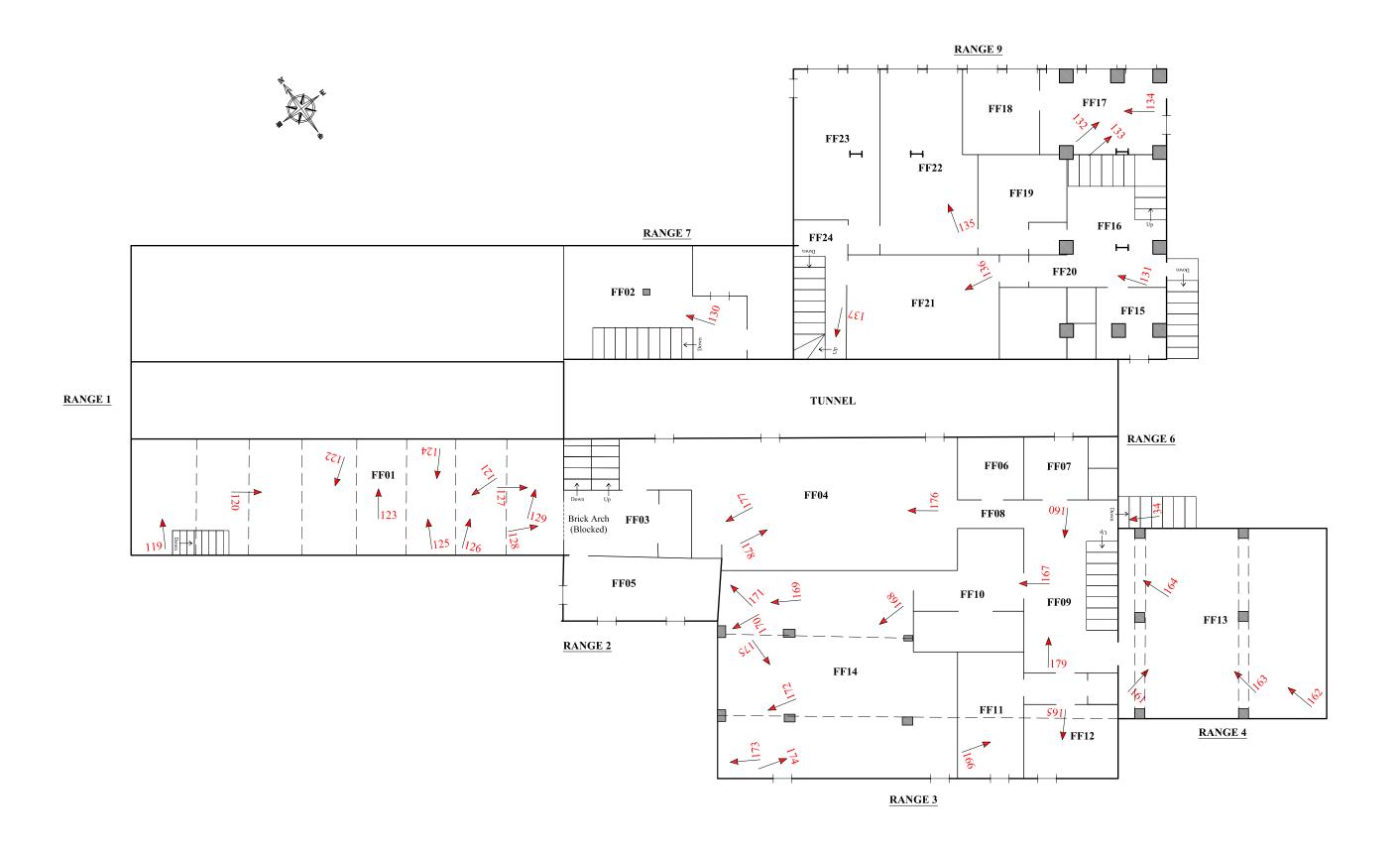


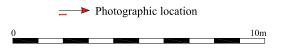
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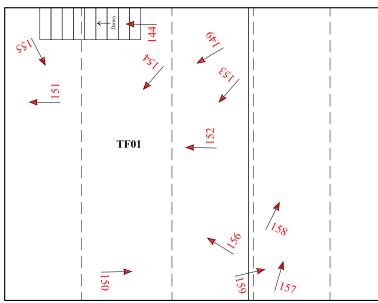


Archaeological Solutions Ltd Fig. 12 First floor plan
Scale 1:150 at A3

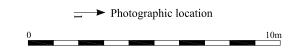
Thurston Granary, Suffolk (P6272)







Third floor



Archaeological Solutions Ltd Fig. 13 Second & third floor plans Scale 1:150 at A3 Thurston Granary, Suffolk (P6272)