

Listed Building App. ref. DC/23/0779 Manston Hall, Whepstead IP29 4TN

Condition 3:

No works affecting the existing timber frame shall take place until a detailed frame survey of that part of the frame where work has been carried out showing the timbers to be retained, missing timbers to be reinstated, decayed/damaged timbers to be replaced and timbers to be removed together with a specification for all jointing and materials to be used shall be submitted to and approved in writing by the Local Planning Authority. The presumption is that all sound timber should be retained and new sections scarfed in unless otherwise agreed in writing by the Local Planning Authority.

SURVEY OF FRAME AND PROPOSED REPAIRS, in accordance with Condition 3 of App. ref. DC/23/0779 Manston Hall, Whepstead IP29 4TN

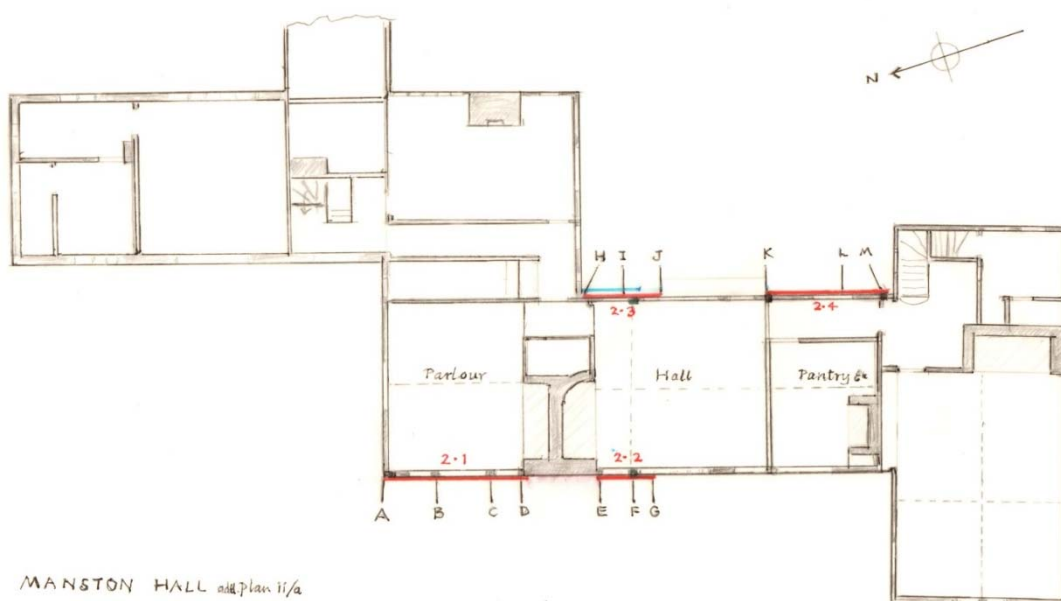
Assessment of Condition of Extant fabric relative to Sole-Plate Repair

The approach outlined here, results from former Conservation Officer, Mike McConnell's advice as well as direct consultation with Rick Lewis, of Traditional Oak Carpentry, who is set to undertake the work in Spring 2024.

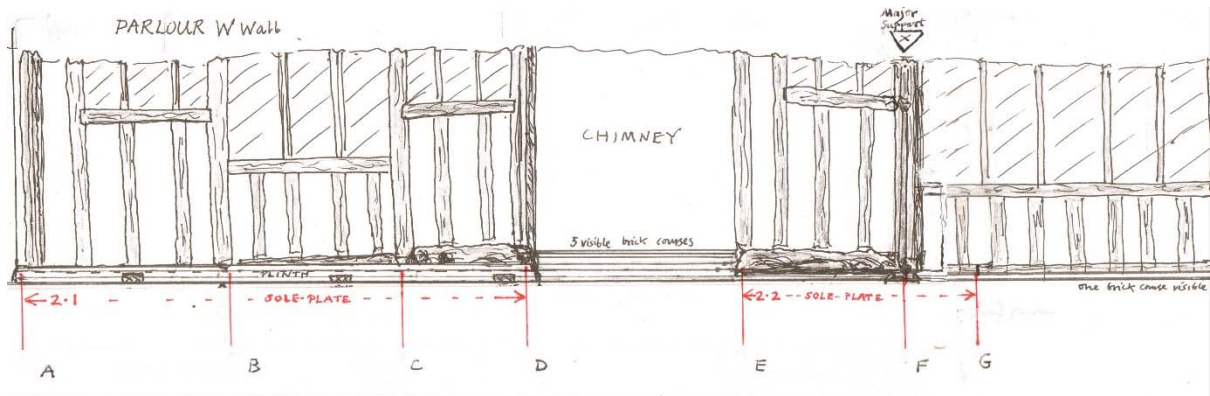
PRIORITY- to conserve as much ancient fabric as possible. Only where repair is essential will new sections of oak be used for repairs to the timber-frame. The timber used will be of appropriate cross-section, with *green-oak* being used for most entirely new components and *air-dried oak* for any patch repairs to avoid problematic shrinkage and subsequent water ingress.

WEST FAÇADE of the 16th century section, Parlour, see sole-plate 2.1

[see: f-1 plan iia, f-2]



f-1



f-2

EXTANT FABRIC – Parlour, Sole-plate 2.1 (A to D)

The Parlour sole-plate, which has rotated by about 45° slopes markedly from south to north. From **A** to **B** it disappears behind the wall-like plinth. From **C** to **D** there is a thicker projecting section on the exterior. [see: f-1 plan iia, f-2, f-3, f-4, f-5, f-6]

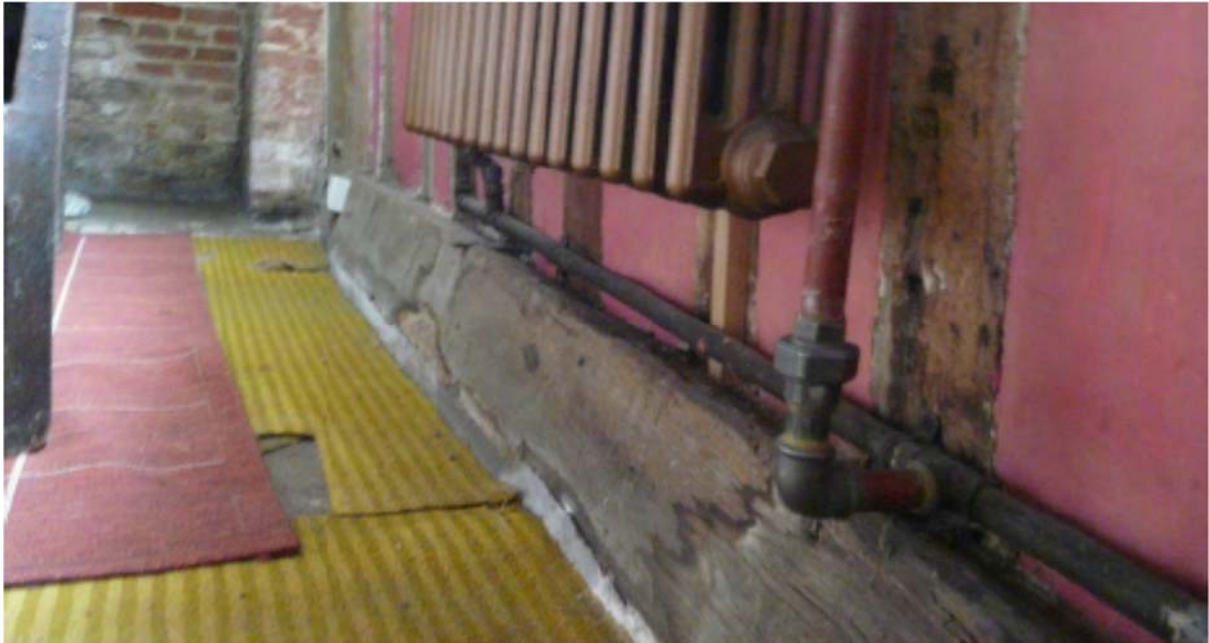


f-3



f-4

On the exterior a substantial **repair**, using scarfed-in sections of *green-oak*, is required. [see **F-3, F-4**]. The aim remains, for as much as possible of the **existing fabric**, to be retained depending on its condition and fitness for purpose.



f-5



f-6

Proposed Dimensions of Timber for repairs - 2.1

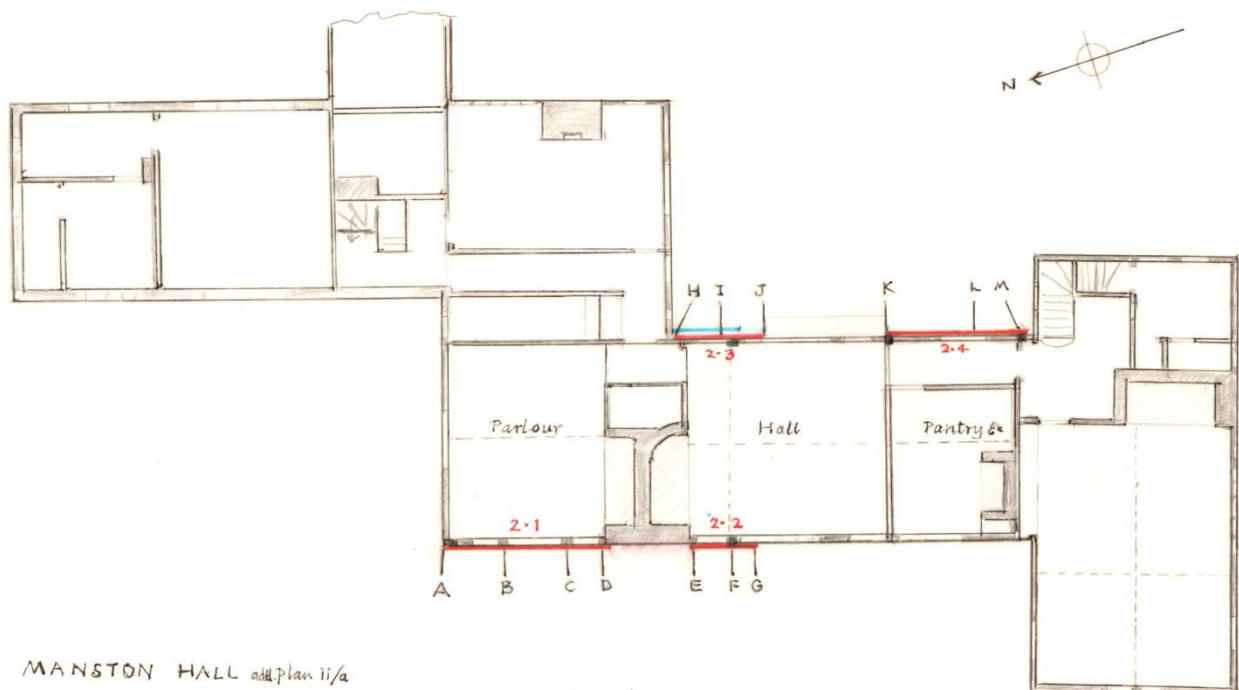
These will all be formed from *green-oak*, or *air-dried oak* where appropriate, repairs to use *Halved Joints* The proposed dimensions are based on the evidence provided by extant fabric.

A-D Sole-plate [Original 16th C – *interior measurement*] timber **230 x 150 mm** internal length **4140mm**. Insert *Green Oak repairs* using *Halved Joints*.

A-C Sole-plate [Original 16th C – *exterior evidence*] Will need **major repair** to sections currently below parapet of brick plinth - from timber **230 x 150mm**, length **3400 mm**.

C-D Sole-plate [Original 16th C – *exterior evidence*] Here the **retention** of, all *visible extant timber* is intended but *scarfed in repair* will be needed behind raised brick plinth– nominal original dimensions. **230 x 180 mm** length **1200 mm**

A-D Studs approx. size of original timbers **150 x 100mm** to use for sections needing *scarfed in repairs*, at the base. These repairs will be *proportionate* and use simple **halved joints** fixed with **hidden stainless steel fixings**.



f-1

EXTANT FABRIC – Hall Bay **E-G**, **Sole-plate 2.2**

[see: f-1 plan iia **E-G** and f-2, f-7, f-8]

Interior evidence suggests less rotation of the original sole-plate than in the Parlour. But there is a substantial length from **E-F** which, standing proud of the stud wall, has deteriorated especially at the base. (see: f-2, f-7) This impacts on the **stability** of the *major upright support* for the cross beam in the Hall – at **F**.

Exterior evidence reveals **decay** caused by damp and **voids** suggesting rodent activity. Downward pressure exerted by the weight of *major upright support* – **F** is apparent inside. [see: f-8]



f-7 **E-F-G**



f-8 **F**

Proposed Dimensions of Timber for repairs - 2.2

This **sole-plate** carries the *load* of the *major upright support \x/* at **F** and given the condition of the **sole-plate** beneath this, a substantial length needs to be **replaced**.

Dimensions of Timber for repairs:

E-G - Sole-plate [*interior evidence*] timber nominally **230 x 150 mm length 1800mm**

E-F(G)- Sole-plate [*exterior evidence*] timber nominally **230 x 180 mm length 1800mm.**

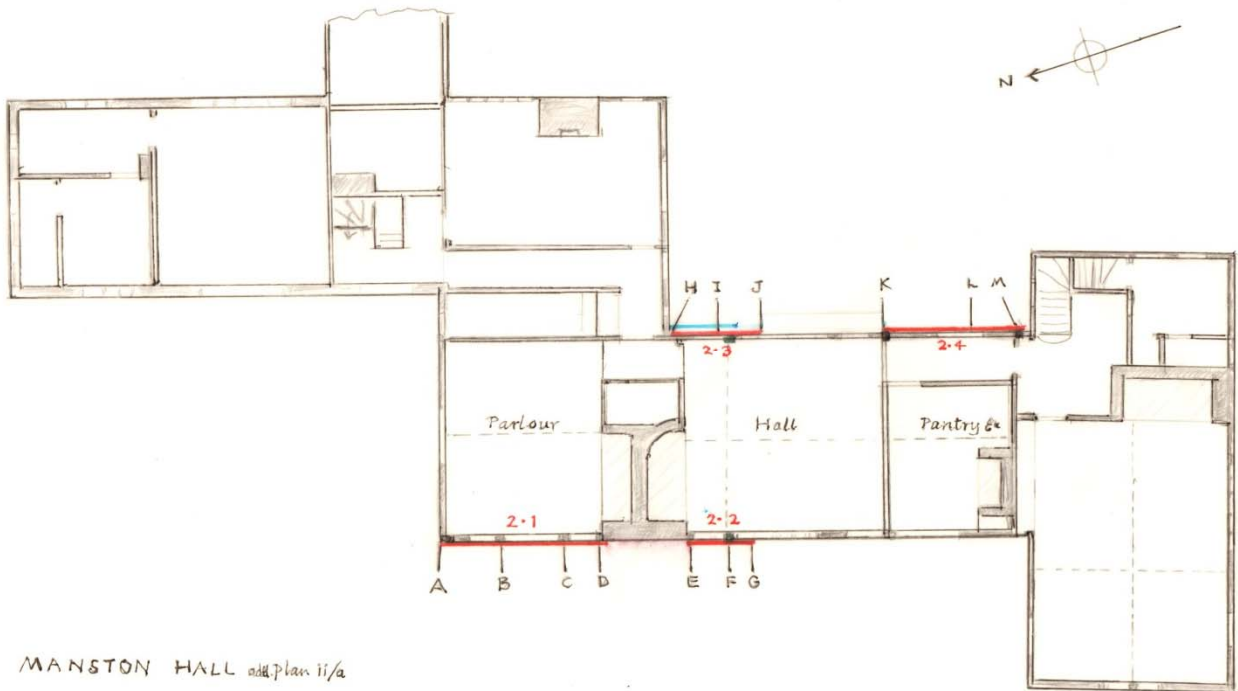
E-F – Post *Major Upright Support \x/* at **F** – of nominal section **290 x 290mm** will need *scarfed in repair* to base, using *vertical halved joints*; fixing by being *tenoned* to the new **soleplate**. n.b. *retain/recreate* carved detail to front.

E- F - **Studs** - of nominal section **150 x 100mm**. Up to **x 3** need *scarfed in* proportionate *repairs* to base, again using *vertical halved joints*, fixed by *tenons* or *hidden stainless steel fixings*, as appropriate to the new sole-plate.

EAST FAÇADE of the 16th C. section, Chimney/Hall area - sole-plates 2.3, 2.4

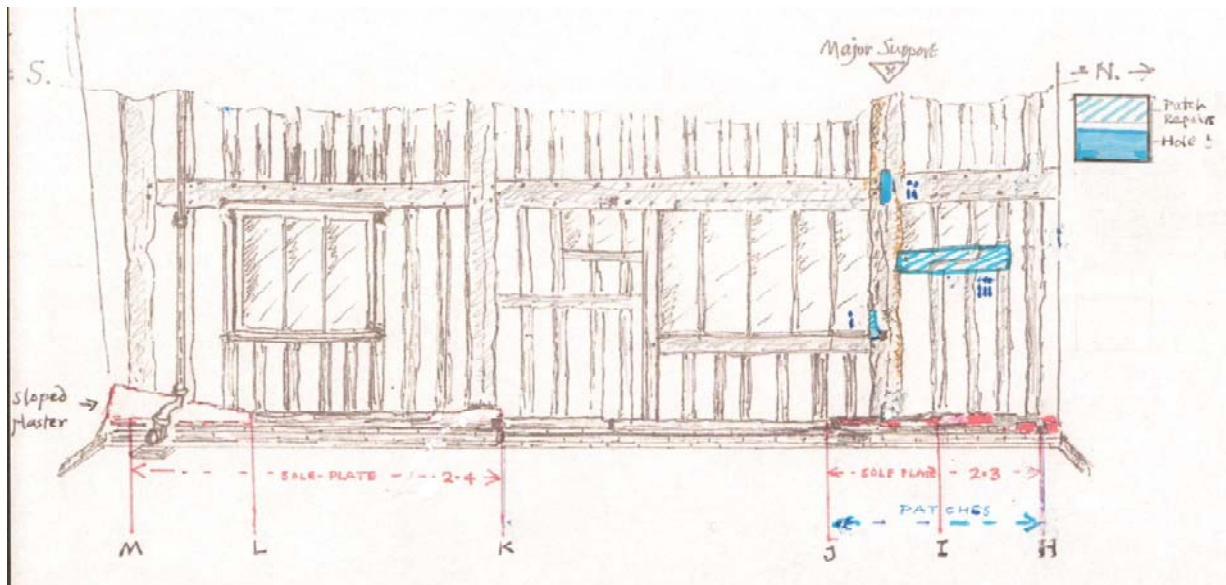
[see: f-1 plan iia, f-9, f-10, f-12, f-15] **H-J**

The East Façade is of similar structure to the West side but it has no jetty. The timber frame is exposed both inside and out. Also the Parlour bay and most of the Chimney bay were transformed into internal space following the addition of projecting East wing of 18th/19th century date.



MANSTON HALL add plan ii/a

f-1



f-9

EXTANT FABRIC – Chimney H-I and Hall I-J area - *Sole-plate 2.3*

[see 2.3 on, f-1 plan iia, f-9, f-10, f-11, f-13] H-J

At the North End, H-J both on the **interior** and **exterior**, there are considerable losses and concrete filled holes in the **sole-plate**, particularly from H-I. Here, penetration by water running off the roofs meeting at the angle where the 18th/19thC wing joins [see: f-1 plan iia], and holes in the timber frame (evidently made to support a lean-to structure) explain the *poor/decayed condition* of the extant fabric.

Replacement of the whole **sole-plate H-J** is necessary.



f-10



f-11 H-I-J / 2.3



f-13 H-I-J / 2.3

Chimney H-I and Hall I-J area

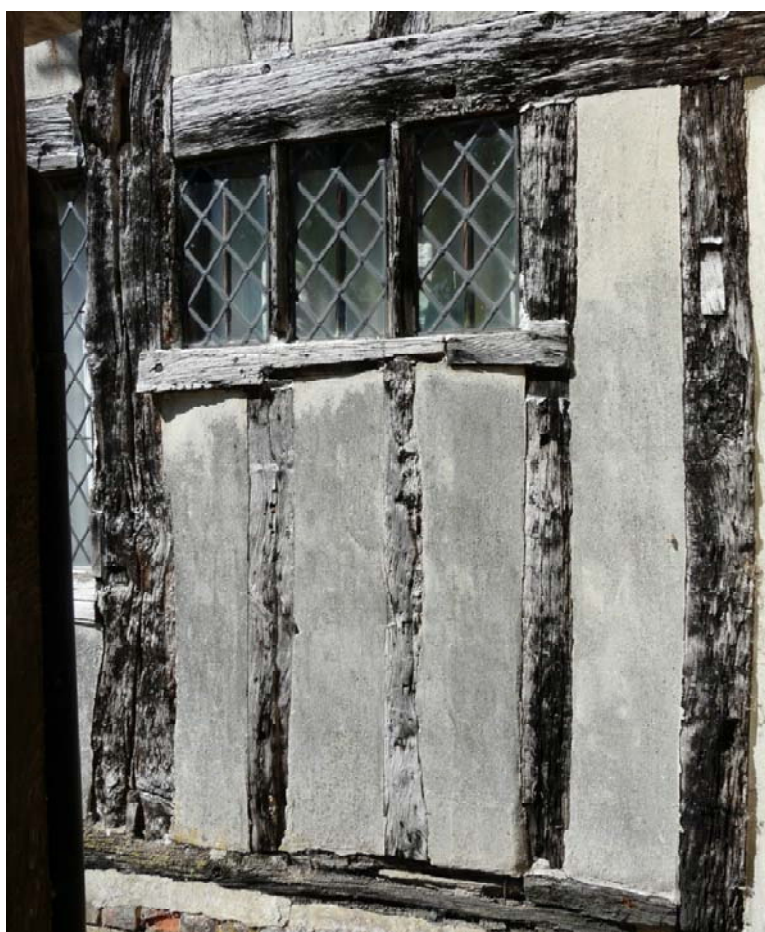
Proposed Dimensions of Timber for repairs. – 2.3

H-J sole-plate - Fit *new, Green Oak sole-plate* using *Halved joints*. Will need **new** length of **1200mm** of nominal section **120 x 180 mm** timber.

Up to x 4 **Studs** of nominal section **150 x 100mm** will need scarfed-in *repair* to base and all to be joined using *vertical halved joints*, fixed by *tenons* or *hidden stainless steel fixings*, as appropriate, to the new sole-plate. [f-9, f-10, f-11, f-12, f-13].

Other Timber dimensions

Major upright support, \x/, between **I** and **J** is of nominal section **230 x 230mm**. This will also need fixing with *hidden stainless steel fixings* to the new sole-plate. [f-11, f-12, f-13].



f-12

EXTANT FABRIC – Buttery/Pantry area, K-M - Sole-plate 2.4

[see 2.4 on, f-1 plan iia, f-9, f-10, f-15, f-16]

Internally - the original **sole-plate** survives about **170 mm** from the floor to full length. However, of this only about **50-60mm** is visible at the top – the rest hidden by skirting. Also internally, the last section of infill before the southernmost support of the 16th C. house shows *plaster affected by damp*.

Externally - the wall leans out, at the base. As on the west façade, the original **sole-plate** must have rotated

L-M is the location where no *exterior sole-plate* remains visible. All is covered by sloped *render*. [see: **f-16**] *hidden stainless steel fixings* to the new sole-plate

This *external render* will be **removed** and a **new** section of **sole-plate** will be **inserted** and **jointed**, as appropriate, while using *hidden stainless steel fixings* to the timbers above. [**f-15, f-16**]



f-15 **K**



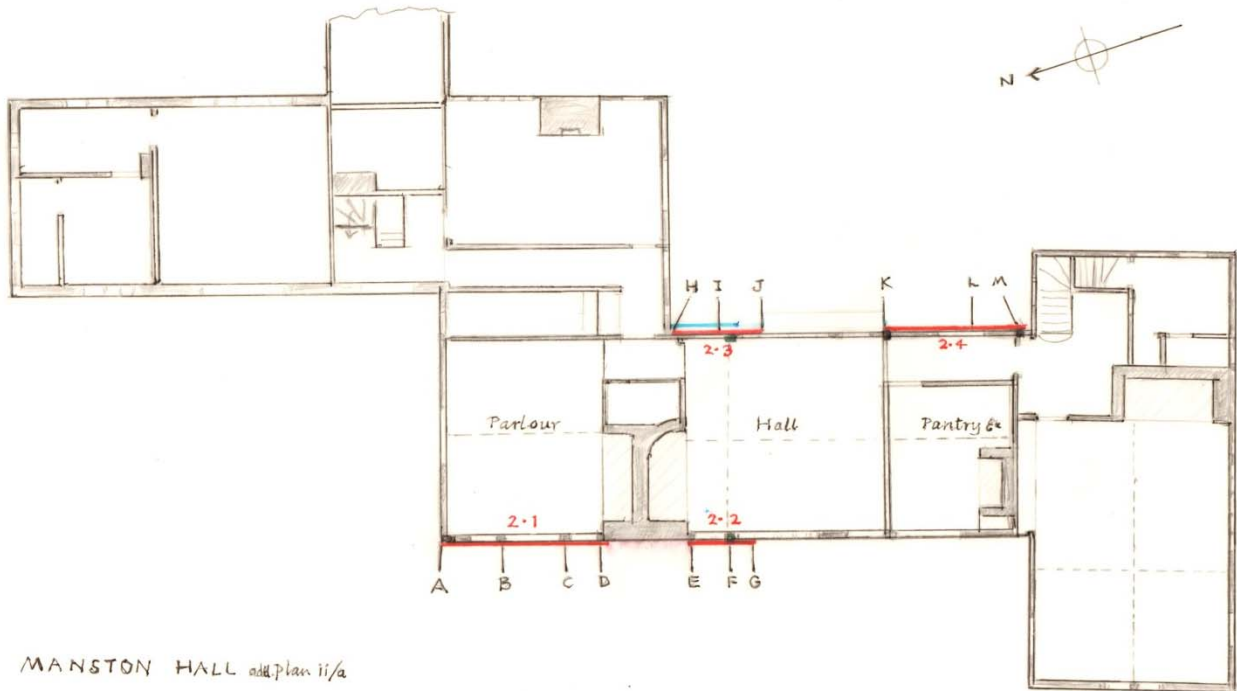
f-16

Proposed Dimensions of Timber for repairs. – 2.4

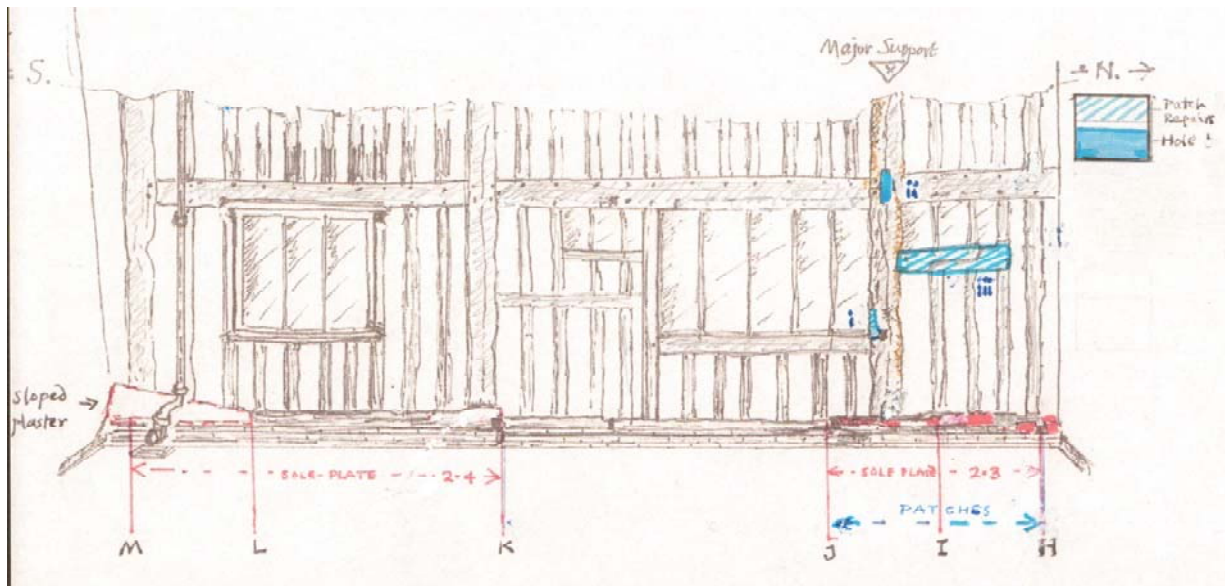
Sole-plate here, of nominal section **150 x 200 mm**. The *South end* of the East façade, runs for **3700mm** from **K-M**. [**f-9, f-10, f-15, f-16**]

PATCH REPAIRS - East exterior wall of 16th C section

Extant Fabric relevant to - Small patch repairs/insertion plates [see 2.3 on, f-1 plan iia, and H-J on f-9 also f-10, f-12, f-13]



f-1



f-9

The blue line, marked at the northern end of this elevation, [see f-1 plan iia] shows the location of some failing 'surface' repairs on the frame. [see: f-12, f-13] Also, the Major upright support (marked \x/) is similarly affected.



f-12



f-13

Timber for patch repairs

Small patch Repairs/ Insertions &c [see **H-J** on f-1 plan iia, on diagram f-9 and close-up photos f-12, f-13, f-13].

Replace/part replace x 3 'nailed on' **patch repairs** [see diagram: f-9.- N.B. the details marked with **blue** roman numerals **i** to **iii**].

Proposed Dimensions of Timber for patch repairs

All **repairs** will be formed from precisely cut *air-dried oak*, **30mm – 50mm** thick, and cutting out only enough from the retained fabric to form a flat plane to fix the patch. These patches will be fixed with *marine adhesive (Sikaflex 291i)* and *stainless steel screws*, pelleted over with *oak pellets*.

i] *Irregular upright and small* – location: lower right hand side/corner of *5 light Hall window* [size: **35mm x 35mm** and approx. **190mm** high [see: f-9, f-10].

ii] Replace x 2 **patches** with *New Cill front to small high window*, at North end of Hall. Replace whole external *cill* to match that extant on West side of Hall, W. [f-9, f-10, f-12]. *Original complete size 120mm w x 1110mm h x 100 mm depth of studs* [Extant dimensions: In two parts: - to South, possibly *original but damaged and cut down 110mm x 830mm*: - to North, nailed on, crude old repair, **100mm x 280 mm**]

iii] Insert, using *air-dried oak*, 1 **vertical block** - to **protect junction** of **wall-plates & Major upright support \x/** - location: at N. end Hall E. façade. -size: **75 mm w x 220mm h x 50mm d.** [see: f-9, f-13]