

Wellow Wood Cottage, Wellow Wood Road, West Wellow, Romsey.

Initial thoughts.

I visited the property on Tuesday 19th September 2023 to assess the current condition of the historic framed carpentry post-fire. The property is a Listed building, Grade II, and my input has been requested by Andrew Robbins of Bedfords Surveyors. As a specialist carpenter with 35 years experience in repairs to Suffolk timber buildings of the 14th – 18th centuries, fire damaged framed buildings are an all-too regular occurrence in our workload. I hope to be able to inform the repairs process that will be a component of the rebuilding of the family home that has been lost in this tragic event. While the vernacular buildings of Hampshire are very different to what we see here in Suffolk, the repairs process for heavy carpentry remains in essence the same.

The house is of several phases, but this document will only consider the historic framed building that forms the core of the property. It is aligned approximately east-west and is of three bays with a single-storey lean-to at the west end.

The building has lost almost all of the historic roof framing above wall plate level with only a handful of rafters and some of the purlin plus two trusses – adjacent to the stack and on the east gable. The wall frames are largely intact but with a few areas of fire damage and some scorching. While the floor boarding has some damage, the floor framing is untouched by the fire, although the large amounts of water used to extinguish the fire have caused a large amount of mould to bloom on the timbers, particularly areas of sapwood.

It is evident that some years prior to the fire the frame had been repaired to a high standard, although these repairs *perhaps* gave rise to the loss of a storey post on the south wall. This missing post would have confirmed that the frame was of three bays – possibly with two bays forming an “open hall” but the only remaining evidence for this is the post in the north wall.

The post has a jowl – a flared section of timber at the top of the post which is used to form a tenon (also mostly intact) and joint into the underside of a tie beam. **If** there was a tie beam here, then the first floor is most likely a later insertion. The wall plate directly above this post has also been repaired (late 19th/early 20th century?) which has sadly removed the lap-dovetail joinery for any tie beam, so we’ll never know for certain, but this does give hints at the former layout and use of the building as well as possibly suggesting an earlier construction date. The only other detail that could have corroborated this is a truss on top of the *possible* tie beam which in turn would have given the opportunity for the purlins to be scarfed at this point – exactly as we see in the truss to the east of this position. If any photographs survive showing the purlins within this bedroom, we might expect to see splinting, or metalwork to fix them together once the possible truss was removed.

If this wasn’t the case, then the purlins to this bay would need to be almost 5m in length – not uncommon in a historic building, but invariably deflected due to the span. It may then prove difficult to reconcile the reinstatement of these purlins in an “authentic” cross-section and get anywhere close to satisfying the building regulations!

The tie beam to the west gable has lost maybe 55% of its length to fire damage but it can easily be repaired with a new section scarfed into it, albeit the remaining 45% will likely require a face patch to the outside as well. Once this, and the lighter damage to the studs below (including the oddly positioned (reused?) jowl post) have been repaired then a new truss can be built comprising of a pair of truncated principals and a collar. The remaining truss to the east gable should serve as a pattern for this new frame and ideally would have tapered principals and a curved collar as well as a pair of studs to the tie beam – evidenced by the mortices in the upper face of the tie.

This simple truss would then support the purlins – an entirely new run for the north side, and a new section, scarfed to the remaining purlin in the easternmost bay and supported by the truss adjacent to the stack. Ideally the new timbers would mimic the remaining section and have a *waney edge* here and there BUT be flat on the upper face.

The remaining sections of rafter can be retained but an entirely new roof frame could be easily built in modern softwood timbers with a bolted collar above the purlin level. If the timbers can be deep enough and the roof framing be made strong enough to need little, or nothing, from the purlins, then the issue of purlin deflection perhaps becomes a moot point. In fact, the purlins could be fixed to the rafters to create an even stronger matrix and mitigate sag in the purlins. The depth of the new thatch has already been flagged up as being visually different to the many layers of historic thatch now lost – if this can be leveraged to allow for deeper rafter sections than usual, then perhaps these details can combine to gain as much for each agenda as possible?

At the top of the stairwell, a small section of timber boarded wall remains – this appears to be black poplar, commonly used within the 18th and 19th century and likely dates from this era. It *may* also give weight to the alterations at first floor level including the loss of a tie beam and even the insertion of the whole floor frame.

Almost opposite the stairwell there is an area of heavy charring to the tie beam, principal, collar and the top of the jowl post. All of these sections look like they could be repaired with little more than face patches – that is to say, cutting back through the bulk of the charred surface to sound timber, creating a flat surface, and then fixing a new (air dried) timber of appropriate size to restore the section. I would suggest using a high-grade marine adhesive such as Sikaflex 291i and stainless-steel fixings (heavy gauge screws or even M10 coachscrews), pelleted to hide anything obviously modern.

Further excavation may call such an approach into question, and some elements may be better to have an appropriate scarf repair or even be replaced, but a face patch is the first and foremost approach to take and will be conservative with historic fabric. This is patient and careful carpentry work and will require highly competent craftsmen for satisfactory execution but is not unreasonable, and to the right person it is fairly straightforward to carry out.

On the ground floor the western lean-to has lost all rafters, although it was unclear quite how old these were, and the lower wall framing appears to be much simpler and presumably later than the rest of the framing. The central post is badly charred and will need a scarf repair; in addition, the underside of the wall plate is charred – until the render is removed it may be hard to assess the best course of action with this timber – it could probably be repaired, albeit not easily in-situ but whether it is pragmatic to do so is debatable.

Within the two ground floor rooms the floor framing is basically intact, certainly there is no obvious damage from the fire, although as previously noted, the large amounts of water used to extinguish the fire and the high moisture content of all surrounding building fabric have created a fantastic ecosystem for various moulds to flourish. If these moisture levels persist, then fungal spores will eventually settle, and the small-section timbers of the joists could easily and quickly lose their capability. Every effort must now be made to bring down the moisture levels – ironically, I noted the outlet of the dehumidifier was laying on the floor and discharging water into the concrete floor and a masonry wall (I rectified this by repositioning it to discharge into the toilet).

The span of the walls at eaves level appears to have been about 4m but have spread by about 160mm in the middle of the larger bay. Much of this movement appears to have happened on the

south wall, evidenced by the new, larger section clamp/ledge fitted to support most of the floor joists within the westernmost room.

This area of the front elevation has been rebuilt at some point (late 20th/early 21st century) to a good standard but as noted earlier, it may have swept away the upper section of a jowled post (presumably the lower half was removed by the window?). For some reason, these two rooms have had low-level paneling installed – it may be to mask something considered ugly, or in poor condition but even if entirely innocent it will currently be retaining moisture and reducing airflow so at the very least, I would suggest some degree of opening up for both ventilation and further inspection.

Finally, a little beyond the brief of someone considering the historic carpentry but of obvious concern is the remaining historic infill panels. These are woven panels of wattles, clad in a clay/straw daub mix and should be retained and repaired wherever possible. Some mention of these must be made to the eventual contractors and they should be encouraged to work carefully around them and use simple sheet materials to shutter them into position if any are found to be loose while carpentry repairs are carried out. Once the carpentry is completed, the panels can be easily repaired with either new daub, or *possibly* by using hempcrete if this is acceptable to the local authority. For any that require new elements to the underlying wattle work, a specialist contractor will need to be found so this will need to be thought about early during the works as the paucity of such people may cause delays to the repairs programme.

I hope this document proves a useful input into the programme of repairs and I am more than happy to discuss any further details as the project is scoped-out and committed to paper for the approval of the local authority. I have taken some pertinent dimensions of the few sections mentioned above plus numerous photos so as-and-when anyone has need to discuss any heavy carpentry issues I can hopefully be of use and provide relevant, and accurate feedback.

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Appendix: Captioned photographs.



View from above showing extent of fire damage to frame.



Carpenter's numerals visible at foot of principal on NE corner.



West gable – note tie beam – it will need to be scarfed for just over half it's length as well as an external face patch.



Internal view of west gable tie beam. From just to the right of the central post it is basically sound, albeit scorched.



Jowl post re-used within west gable. Note tenon for wall plate (at top, to the right of cabling) proving it was used elsewhere prior to this frame, also void mortices below. The peg within the gable tie beam is NOT associated with this connection – there is no tenon there.



Jowl post in north wall – note teazle tenon remnants, suggesting there was originally a tie beam here. Also note the patch repair to the wall plate – removing any evidence of a lap-dovetail joint for the tie beam.



Interior of ground floor room, west end. Note low-level paneling – this should be opened up to check the moisture content and condition of sole plate and bottoms of studs/posts. This will also allow air flow to the area and speed up drying out of the building fabric.



Mould is flourishing on the floor framing due to the rise in moisture levels putting out the fire. It is particularly worse on components with a higher sapwood content making them very much more susceptible to further decay.



Exterior view at southwest corner of frame. This area of framing has been rebuilt to a good standard, although historically there would have been a jowled storey post in the middle of the window. I suspect that the current window replaces a Victorian window which cut through the post making restoration of the post seem pointless to previous occupants.