Roundhouse additional information ref planning application PL/2023/09269

Description update

The Roundhouse is a grade II listed building dating from the late 18th century. A former wool drying house, the building has had various identities, commercially/retail related since its inclusion on the statutory list in 1950. It is located within the Melksham Conservation Area. The list description states, for means of identification purposes only, the following: Wool drying house, now craft shop.

UPDATE – it is now used a Community Larder to distribute food that is close to sell by date, that would otherwise be thrown away. The project is managed by a voluntary group and the rent, heat, light and power are donated by Melksham Town Council.

Late C18. Coursed rubblestone, stone slate conical roof. Circular plan. 2 storeys, 4 windows. Wide door has plain ashlar case, windows to ground and first floor are single casements in beaded cases. Renovated interior has C20 roof, stairs and first floor. Industrial building associated with Melksham's C18 and early C19 wool industry.

Specific Advice and Comments on the Proposals Various repairs to the building are proposed, with specific focus on the masonry and pointing. These have been outlined in an accompanying document by Sandridge Stonemasons. To provide comment on these in turn, in no particular order:

• Lime mortar and stone degradation

On initial inspection, most of the stone did not appear to be too bad, considering the age of the building. The shape of the building, being slightly tapered, does not allow adequate protection from the eaves overhang and guttering above, which may contribute to the stones' deterioration in places. Also, the impermeable surface i.e. paving slabs, that abuts the building will not be doing it any favours, and may be contributing to damp experienced within the structure. In terms of replacement, where the stones have been weathered to a point that they are no longer structurally sound, or to a point that they have been structurally weakened, then there would be a need to address this.

The poor mortar joints are concentrated particularly at low level up to approximately 1 metre above the ground. This is likely to have been caused by splashback from rain coming off the roof (as there a re no gutters), 'hitting' the footpath adjacent to the building. The water can slowly dissolve the mort ar which is accelerated by freeze/thaw action. The areas of degraded mortar and joints repairs using a cementitious mortar should be raked out and repointed with a traditional lime mortar. This includ es the window surrounds. From report of Structural engineer, Structural Solutions 28.02.23

• Slumping of the masonry structure

I appreciate this has been looked at by an appropriately experienced stonemason but has it also been looked at by a surveyor/structural engineer to determine what the cause is, or if there is anything else going on that may be affecting the building's structural integrity?

We instructed a structural engineer to inspect the building in February 2023 and his comments are as follows:

Slumping of the stone wall, i.e. bowing of the wall is caused by the rubble/lime core between the external stone and internal brick slumping or settling over time. The slumping is caused by ingress of damp and this exerts additional lateral pressure on the 'back' of the wall causing the observed bowing. The most unobtrusive remedial measure to prevent further bowing would be to introduce lateral restraint ties installed by drilling and inserting stainless steel 'bars' through the wall to effectively connect inner brickwork and outer stonework together. These are minimally invasive and can be finished so that they are not visible from either side.

- Damp

Is this a genuine problem, or has it become evident since the building has been empty? Damp is caused by the presence of moisture without adequate ventilation and heating to allow the building to breathe. Vacant buildings can show signs of a perceived problem, which will easily resolve itself with adequate ventilation and heating, i.e. an active use. I have also commented on this in point 1, above.

There are signs of damp both ingress from outside and rising up for the ground. This is not unusual for a building such as this as no damp proofing would have been incorporated into the building during construction. The walls have 'bulged', particularly to the lower elevations and this is likely to have been caused by the damp ingress causing slumping of the rubble/line sandwich between the outer stone and inner brickwork combined with the lack of ties through the wall.
Damp in buildings is typically caused by rising damp and/or penetrating damp. Rising damp is difficult to control without introducing, in this case, a chemical damp proof course. However, we would not recommend this as it can cause damp to be 'trapped' within the wall rather than letting it dissipate through natural ventilation. Similarly, the best way to deal with penetrating damp is to ensure all mortar joints and cracks are dealt with as described above in the lime mortar pointing section.
Above all, if walls are in good condition, damp can be dealt with via good ventilation and low level heating of the building internally. From report of Structural Engineer, Structural Solutions 28.02.23

- Entrance lintel and keystone

Adding some form of 'stitch' repair is a common approach for such an issue, as it retains the original stone in situ. As mentioned above, it is important to establish whether or not this is due to current movement within the building: it may be old movement that has settled, which the proposed repair will fix, but if there is current movement, the repair could put other stresses on the building.

Deterioration of the entrance door 'lintel' and keystone which shows sign of movement, possibly in recent history ideally should be removed and rebuilt. However, this is a particularly invasive process and thus an alternative would be to introduce stitch repairs using stainless steel bars and resin appropriate to historic buildings. The repair would then be repointed using a traditional lime mortar. Cracking of the stonework is caused by general movement over time. There are unlikely to be any foundations for the building and thus the building is susceptible to movement for any number of reasons, for example, vibration from vehicles on Church Street, maintenance of the footpath adjacent to the building or seasonal movement of the ground due to moisture level variations. Movement of the foundations will cause movement of the walls which leads to cracking. Some of this cracking just requires repointing using a lime mortar as this allows for a certain amount of future movement. Larger cracks may require crack-stitch repairs that are appropriate for historic buildings. From report of Structural Engineer, Structural Solutions 28.02.23

- Window surrounds (internal and external) and Internal brick elevations

Addressing missing and inappropriate cementitious mortar will improve the breathability of the stonework, whilst keeping it weathertight. Localised repointing with lime mortar can usually be carried out without the need for consent, however larger areas, as have been identified, will need consent, as it will require approval of a sample panel of pointing due to the potential visual and physical impact on the appearance of the building.

As alluded to in the Stonemasons report, the lime mortar has been matched to the exact specification to the existing lime mortar This is the supplier of the lime mortar samples: https://roseofjericho.co.uk/ The are nationally recognised leaders in the field of specialist traditional lime mortars for heritage buildings. It's also worth noting that the test patches are not 'off the shelf' mortars but were specifically formulated for the roundhouse based on a sample of the mortar that has been sent to them. They have replicated it so well that we have an almost perfect match.

Overall it appears that a lot of these issues could well be related to each other in some way and it is important to treat the building as a whole and not as separate 'issues'. The paved surface abutting the building is not ideal, but it is accepted that making changes to this, even to introduce a gravel channel around the building might not be possible. There is nothing in the current legislation that covers the general repair of listed buildings and works such as repointing and those that secure the structural integrity of the stonework, usually require consent. This is because there is a level of intervention into the building that can affect its appearance and fabric. Repointing will also usually require a sample panel to be approved prior to larger scale works. Therefore, it is considered that the combination of all the repair works listed for the building will require listed building consent. It is also advised that the opinion of a suitably qualified surveyor experienced with listed buildings is instructed to assess the building for any potential structural movement, which would clarify what is required and justify the works proposed.

Please find attached, the Structural Engineers report detailing each of the issues in turn. Please do contact me if you require any further information.