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Our Ref. PC/SMC/2029/1

04 December 2020

Sarah Taylor
Marston's PLC
Marston's House
Wolverhampton
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Dear Sarah



Canal side elevation of outbuilding
and leaning tree

Boat Inn
Basford Bridge Lane, Cheddleton, Leek, ST13 7EQ

We called at the Boat Inn on the 1 December 2020, a fine bright day, to inspect the external outbuilding used as a cafe and store which was reported as having severe cracking to stonework.

The Boat Inn is a detached public house on its own site alongside the Caldon canal which was opened in 1779. The pub and outbuilding appear contemporaneous.

The pub is built on a sloping embankment about 12 m back and above the canal with the outbuilding built at the bottom of the embankment about 1.5 m off the canal and about 0.7 m above the bankside.

The outbuilding has a duo pitched tiled roof and coursed stone walls.

Due to the slope of the embankment it is single storey with basement on the pub side and two storey on the canal side. The outbuilding is about 9.1 m long by 4.2 m wide according to plans provided.

The roof slopes and ridge have dips and undulations from gable end to gable end.

The west side wall is single storey about 2 m high and original coursed stone with one window to the left of the central door and rebuilt coursed stone and two windows to the right of the door. There is a two brick by two brick chimney stack 1.5 m high in the left corner.

Some repointing has been carried out to the original stonework but further pointing is required especially at lower levels on this and above and to the right-hand side of the rebuilt wall.

The north gable wall is single storey and has a central doorway with two steps up from the adjacent veranda floor level. The stonework is largely obscured by signage and the veranda with a duo pitch tiled roof but cracking and loose stonework is present at eaves level.

The south gable is two storey with a low level door opening into the basement accessed at the bottom of steps down the embankment.

The wall is of coursed stonework recently repointed about 450 mm thick. The stone lintel over the doorway has minimal bearing and the rusting inset iron door hinges are damaging the stonework.

The canal side elevation is of two storey coursed stonework with one small central low-level window opening and a pitched tiled roof over with undulations to slope and ridge.

The roof slopes and at higher level on the wall were covered with dead Ivy and it was evident that it had been cut back within the past few months.

There was a large tree growing tight alongside the wall about midway along.

The tree maybe an Elm and about 20 m high. It leans out towards the canal and is likely to topple over at any time but most likely in a summer storm when it is in full leaf.

The tree has damaged the wall foundations and distorted the lower coursing and instigated severe vertical cracking below and above the small basement window opening.

Some previous repointing work has since re-cracked indicating continuing movement.

Internally, on the pub side and level and entered through the west side door the building has been converted into a kitchen area servicing a cafe area to the left.

The kitchen has a solid painted concrete floor and dry lined walls and ceiling.

The cafe area is up 3 steps onto a tiled timber floor with dry lined walls and raised collared ceiling.

Internally at the canal side level the basement is entered off the south gable at the bottom of embankment steps. The floor is of roughly laid stone flags and the walls stonework with much loose stonework in need of repointing.

The entrance room is full height two storey to roof level where felted over rafters and purlins are exposed. The entrance room is cluttered with old furniture which obscures the walls.

A block wall has been built halfway along the gable from floor to eaves level to enclose the kitchen area above. There is a vertical crack internally above the doorway on the right-hand side.

An original stone wall splits the basement into two rooms with the far room ceiling providing the timber floor under the cafe room. Timber lintels over the opening have wood worm damage. This floor is of shallow timber joists spanning onto a central timber beam and has also been provided with a forest of small timber struts placed under the joists to stiffen them. There is also a roughly central brick pier supporting the timber joists and the chimney above.

Conclusion

The outbuilding is in very poor condition structurally.

The roof appears just about adequate to keep out rainwater but is in poor condition with many dips and undulations.

The kitchen and cafe have been refurbished and now hide the structural problems in the adjacent walls and roof.

The basement level is semi derelict and all internal walls need some repointing.

The tree roots have severely damaged the integrity of the canal side wall and foundations. The tree is liable to fall into the canal at any time probably during a summer storm when it is in full leaf. When this happens, it will probably bring down much of the canal side wall north gable wall and roof structure together with it into the canal.

The tree should be removed and the adjacent wall rebuilt as necessary.

The outbuilding is in a location with very restricted access and repair works may well require use of barges on the canal for access and removal of debris

The pitched roof is in need of strengthening.

The woodworm infested timber lintels need replacing.

Recommendations

The outbuildings should have restricted access to staff and with no public access allowed until the tree is removed and the wall rebuilt as detailed below:-

The canal side roof slope and cafe floor should be propped with a bird cage type scaffold.

Allowance should be made for at least half of the canal side wall to be taken down from eaves level to ground level. This will require scaffold along the canal bank which should be tied back to the internal birdcage scaffold.

The tree and all roots should then be removed.

This work should be done before the springtime leaf growth and the bird nesting season starts.

The canal side wall should then be rebuilt solid and as original in lime mortar off new foundations.

All areas of defective pointing should be made good externally and internally.

The cafe floor should be strengthened with additional joists and beams placed alongside existing.

The roof should be stiffened with additional purlins, rafters and ceiling ties.

Any inadequately bearing stone lintels should be resupported with at least 100 mm end bearing, if there is any movement present in the walls adjacent or over.

Embedded rusting iron brackets and hinges should be replaced with corrosion resistant surface fixings.

The woodworm infested timber lintels should be replaced.

We also recommend that boats are not moored alongside the canal side wall on both banks, from now and until after the works are completed and warning notices confirming this are placed on the wall.

We must emphasise that we have not carried out a structural inspection of the pub building or services and are only commenting on the structure of the external outbuilding used as an external cafe and store which was reported as having severe cracking to stonework.

This report is carried out for the specific use of Marston's and is limited to a visual inspection as described and is not to be passed on or used by any third party as a guide to the value or general integrity of the property.

Our inspection is based on a limited visual inspection of the locations described and we have not inspected woodwork or other parts of the structure, which are covered, unexposed or inaccessible and we are therefore unable to report that any such part is free from defect.

Yours sincerely

Paul Carney

BSc C Eng MICE MIStructE



Eastern canal side wall with tree causing severe cracking to wall and foundations



Eastern canal side wall with tree causing severe cracking to wall and foundations



Eastern canal side wall with tree causing severe cracking to wall and foundations



Severe cracking to wall above window having been repointed and since re-cracked



Severe cracking to wall above window having been repointed and since re-cracked



Distorted and cracked wall under window



Distorted and cracked wall
under window



South gable with entrance to basement
at canal side



Basement door with poorly supported
lintel and leaning tree alongside canal



Internal wall over basement door with cracking
over right hand side of timber lintel



Internal passage with opening to rear basement
with defective timber lintel supporting stone wall



Brick pier in rear basement and
timber props supporting cafe floor



South gable wall with basement entrance alongside canal



West side elevation with showing original and rebuilt stone walls



North elevation showing roof undulations and veranda



North gable elevation with veranda roof over



North elevation gable showing loose stonework at eaves



Internal view of north gable dry lined cafe walls