Betsy Grimbal Tower
Tavistock
Devon

2024 INSPECTION REPORT

FOR

Tavistock Town Council

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1.0 Introduction

1.01 Status and Occupancy

The buildings are owned by Tavistock Town Council (TTC).

1.02 Building History and Significance

Name: FORMER POLICE COTTAGES IMMEDIATELY EAST OF POLICE STATION
List entry Number: 1105870
Grade: I

Still House and Abbey Wall (formerly listed under Plymouth Road) SX 4874 4/6 7.9.51

Mostly C15. The Great Gate of the Abbey, west entrance to the precincts. Moulded segmental arches, (one blocked) with flanking towers. Under the arch stands the stone coffin found when the Chapter House was destroyed. The bones contained in it are now in St Eustachius' Church (gv). Named after corruption of the Blessed Grimwald.

Scheduled Ancient Monument.

Listing NGR: SX4811574330

2.0 Conduct of the Inspection

2.01 Scope of the Inspection:

TTC has commissioned Le Page Architects to undertake a non-invasive comprehensive condition survey and work plan outlining future repairs to the building following the consolidation works carried out in August 2024.

The author of this report undertook the visual inspection in August 2024. It is based on the findings of an inspection made from ground and first level access, as well as access to the higher levels via a cherry picker and tower scaffold. Unless otherwise stated, the inspection has been purely visual, no enclosed spaces or inaccessible parts were opened up for inspection.

The following particular areas were not inspected: -

a. Inaccessible roof voids.
b. Voids between suspended floors.
c. Flues and ducts.
d. Only sample external pointing locations inspected.
e. Manhole covers where not lifted.
f. Timber panelling was not removed.
g. Fittings and furniture were not removed.
h. Floor coverings were not lifted.
I. Parts of building covered or hidden by storage.
j. Floor boards were not lifted.
k. Heating installation was not tested.
l. Electrical installation was not tested.

This report indicates the general up to date visual condition of the exterior and interior of the building; it does not pretend to be fully comprehensive or to give definite solutions. It is stressed that it must not be used as a specification for work. Professional advice should always be sought prior to instigating any repair work. Amateur work, however well intended, should not be undertaken as incorrectly carried out remedial repairs can often do more harm than good and may possibly be inappropriate to the historic nature of the building. Indeed,

insensitive repairs (even minor repairs) can easily destroy the architectural character and aggravate a technical problem. It is emphasised that nothing in this report is intended to imply criticism of any person.

2.02 Drainage and other documents

No documents have been obtained pertaining to drainage or other requirements.

2.03 Personnel

The inspection team was met initially by Wayne Southall and Becky Rowe of TTC.

2.04 Weather conditions

The weather conditions on the day of the first inspection were warm and overcast.
The conditions of subsequent visits were a mix of dry and damp.

3.0 Work carried out since previous inspection

Removal of vegetation to walls and ground within the building. Any large roots within the stonework have been removed and the stones re-bedded as required.

All tops of walls were checked for any loose stonework. Localised repairs were carried out to re-bed any loose stonework.

All repointing and re-bedding to stonework were carried out using a 1:2 NHL 2 - sand 5 with Senna and black grit aggregate mix.

4.0 General state of the building and its setting

4.01 Summary of findings

The building is as a whole in reasonably sound condition. There were previous concerns of deep vegetation and exposed wall tops having a detrimental effect on the structure if not dealt with. These have been addressed in these consolidation repair works (August 2024).

a. General structure

b.
The property is constructed from local Hurdwick stone with shillet (Exeter Archaeology Report). There is still evidence of modern, inappropriate hard pointing mixes as previously reported to all internal and external elevations. Repairs carried out have used the more suitable NHL/sand mix as above, but the remainder of the modern hard pointing remains.

b. External wall surfaces

South-West Elevation

The walls are formed from Hurdwick random coursed stonework with granite tracery windows (with relieving arches over), granite surrounds forming the passageway opening as well as dressed Hurdwick arrow slit openings.

Areas of modern hard pointing throughout elevation.

Vegetation growth to upper parapet stones has been removed, but there is still a high degree of moss and algae to the face generally, which will require Doff cleaning.

Hurdwick parapet dressed and coursed stone to both towers with signs of splitting to the northeast corner, (caused by vegetation roots) this has now been removed and the stonework made sound.

Thick ivy growth to south-east wall top and adjacent face has been removed.

Wrought iron gates to passageway opening in fair condition. These would benefit from redecoration in a suitable hard-wearing paint.

South-East Elevation

Hurdwick random coursed stonework walls with missing tracery surround to high level window opening. This opening is badly bulging to the lintels and 6 no. new acro props have been installed as a temporary measure to reduce the risk of collapse.

Areas of modern hard pointing throughout elevation.

Thick ivy growth to south-east stairwell wall top has been removed as part of the consolidation works carried out.

As before, former petrol station lean-to roof and eaves lintel scars and socket to wall. Further high-level socket to wall.

Former petrol tank galvanised steel ventilation tubes fixed to south-eastern corner remain.

North-West Elevation

Hurdwick random coursed stonework walls with vegetation growth to tops.

The turf capping to the stonework appeared to be offering protection to the wall top, observed when the stone repairs were carried out. Therefore, large damaging roots were removed, however, the turf was left to protect the wall top.

Areas of modern hard pointing throughout elevation.

Granite tracery mid-level window in good condition (some moss growth in need of cleaning).

As before, this elevation is suffering from severe dampness which can be traced from the wall top down to the north-east corner. The wall is most likely saturated and does not have enough sunlight to dry it out, this coupled with the hard pointing means the wall will retain moisture. To help elevate this issue the wall should be repointed with a lime-based mortar, however this may take time once conserved to be fully dry and even then, it may not occur due to the lack of roof and openness of the structure.

North-East Elevation

Hurdwick random coursed stonework walls with vegetation growth to tops removed and stonework consolidated.

Areas of modern hard pointing throughout elevation.

Granite tracery upper window with part of relieving arch (in Hurdwick stone) over within the stonework.

Hurdwick voussoir stones to blocked passageway arch.

As previously noted, the gate pillar to the adjoining Bedford Hotel is cracking vertically along profile of the blocked up passageway arch.

Displacement of stonework at gate pin observed.
Gate pillar for the adjoining Bedford Hotel now cracking vertically at abutment with passageway masonry, as well as cracking and displacement of stonework at gate pins.

All these will require close monitoring and recording.

c. Roof Structure

The barrel roofed passageway structure is in sound condition with no signs of deterioration. This requires cleaning with a Doff cleaning system, removing the moss and algae.

d. External Door

The modern oak door is in good condition.

e. Internal Wall Faces

South-East

Hurdwick random coursed stonework walls.

Areas of modern hard pointing throughout elevation.

Missing lintel stone over upper window (missing dressed stone externally). Modern steel lintel bars in place now deflecting seriously. Temporary propped as part of the works.

Dressed slatestone arch head staircase opening.

Algae and moss growth to ground floor wall. This requires Doff cleaning.

North-East

Hurdwick random coursed stonework walls with vegetation growth to tops, with ivy growth to wall top to north-east.

Cantilevered Hurdwick stonework to north-east corner at abutment of wall with northern gable (former staircase).

Patches of modern hard pointing throughout elevation.

Granite lintel stone over upper window, slatestone central lintel.

Patches of moss throughout elevation remain and require cleaning.

North-West

Hurdwick random coursed stonework walls with vegetation growth to tops removed.

Cantilevered Hurdwick stonework former staircase wall with vegetation removed. All currently appear stable.

Patches of modern hard pointing throughout elevation.

Hurdwick voussoir stones to upper window.

Patches of moss throughout elevation.

South-West

Hurdwick random coursed stonework walls with vegetation growth to tops. Patches of vegetation to elevation generally.

Dressed slatestone to upper window opening.

Patches of moss throughout elevation.

Granite tracery stones to upper window, slate stone to doorways and window.

Stairwell

Hurdwick random coursed stonework.

Similar dressed forming spiral steps.

Areas of modern hard pointing and cement slurry throughout spiralled walls.

Moss and algae growth to upper exposed wall and treads.

Ground Floor

Cobbles to the gate passage, all in reasonable condition.

Reduced original floor level to the turret; now just soil with vegetation.

Stone drain from Garderobe in reasonable condition and cleared as part of 2024 works.

First Floor

Heavy soil and vegetation to passageway floor over removed.

Blocked outlet to wall upstand.

Modern timber handrail and balustrading (not considered structurally sound).

5.0 Recommendations

5.01 Repair Recommendations

a. Wall tops to the building

Soft Capping of wall tops:
Lay 100mm thick loam soil to all wall tops, compacting under foot.
Source and lay local turf to soil creating a soft cap, secure in place with green split and twisted hazel pegs. Trim each turf section to abut tightly with the next. Lay turf to an even level line along each wall top.

b. All walls of main building

Allow to collect up all previously fallen stonework to tower ground level for use within consolidation works.

Allow to doff clean down all faces of algae, moss and mould.

Undertake full analysis and site investigation with Archaeologist of current pointing removed as part of this 2024 works.

Allow to remove all modern hard mix cement pointing back to depth twice that of joint height(s).

Allow to remove all defective lime-based archaeologist agreed non-contentious pointing.

Take further strategic wall core samples of lime bedding with archaeologist to produce better understanding of building phases

Repoint all raked out joints in laboratory analysis based mix of NHL pointing.

Carefully hand remove all modern cement slurry and pointing to stonework using hand tools only.

Carefully remove 2 No. galvanised steel vent pipes to south east elevation. Remove all fixings, and repoint holes with laboratory analysis based mix of NHL pointing.

Consolidate upper south eastern window jambs and cill stonework. Schedule, photograph and number stonework to area. Remove stonework and set aside.
Carefully remove existing lintel bars to window head. Consolidate head stonework.
Incorporate new 316L stainless steel 75mm diameter prop with 150mm x150mmx12mm 316L stainless steel header and sole plates. All as Structural Engineer's details.
Bed in plates in Thixotropic mortar.

Relay all removed stonework back in original positions bedded in NHL pointing and bedding mix based on laboratory analysis build up.

At internal north-east elevation incorporate new 316L stainless steel 100mm diameter prop with 300mm x300mmx12mm 316L stainless steel header and sole plates. All as Structural Engineer's details.

Bed in header plate in Thixotropic mortar, lower plate in 4No. resin anchored 12mm bolts to existing tower stonework.

Allow to fix 316L stainless steel pins to rear of Gateway Passage wall suitable to hang curved braced oak truss from Abbey Chapel currently sitting within space. Fixings to support oak and not to involve drill securing of timbers.

To passageway first floor over remove vegetation and soil to masonry level. Treat all roots within walls with suitable chemical weed killer. Ensure all soil and vegetation is taken form area to reduce future re-growth.

Soft Capping of floor top by laying 100mm thick loam soil to all wall tops, compacting under foot.

Source and lay local turf to soil creating a soft cap, secure in place with green split and twisted hazel pegs. Trim each turf section to abut tightly with the next. Lay turf to an even level line along floor top.

Allow to replace existing timber balustrading and handrails to passageway first floor, with more structurally sound, suitable design.

Allow to remove Bedford Hotel gate and pins to Buttress pier at Northeast elevation.

Allow to re-seat displaced granite stone and bed in NHL pointing and bedding mix based on laboratory analysis build up.

Incorporate joint based Helifix stainless steel reinforcement bars to horizontal and vertical cracks to buttress pier and archway masonry of northeast elevation. All as Structural Engineers details (at gate opening).

Incorporate joint based Helifix stainless steel reinforcement bars to southwest horizontal cracks to parapet dressed and coursed stonework. All as Structural Engineer's details (at gate opening).

APPENDIX A

PHOTOGRAPHS

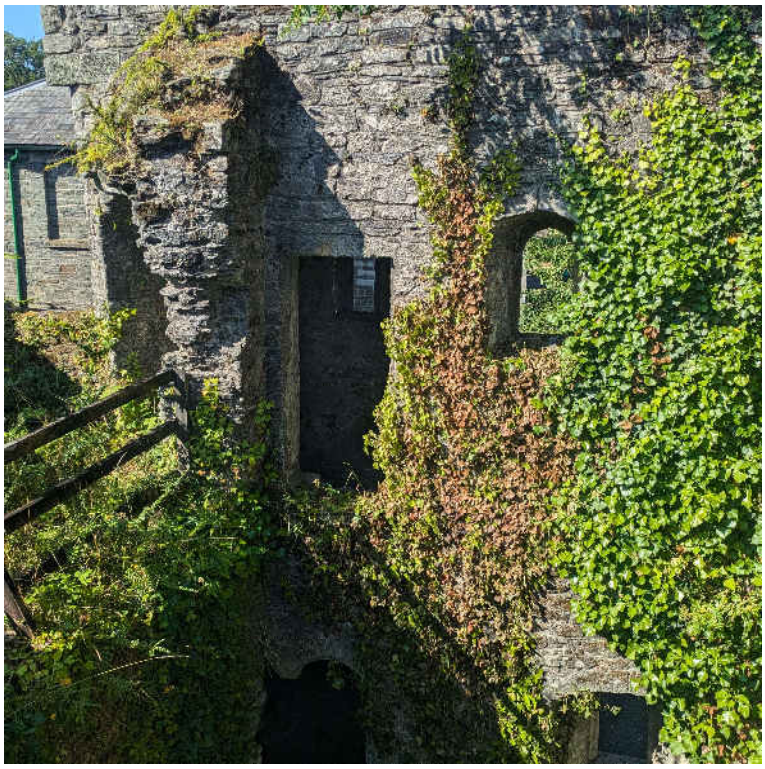

Image 01 - Internal view of south west elevation
prior to full vegetation removal

Image 02 - Internal view of south west elevation
After large amount of vegetation removal

Image 03 - First floor
Prior to vegetation removal

Image 04 - First floor
Large amount of vegetation removed

Image 05 – First floor
After large amount of vegetation removal

Image 06 – Internal view of south east elevation
Props installed to window

Image 07 - Internal view of north west elevation
Midway through works with some ivy removed to lower levels

Image 08 - Internal view of north west elevation
after large amount of vegetation removal and making good to some areas of stonework

Image 09 - Ground floor and internal view of north east wall
During the works still overgrown with vegetation

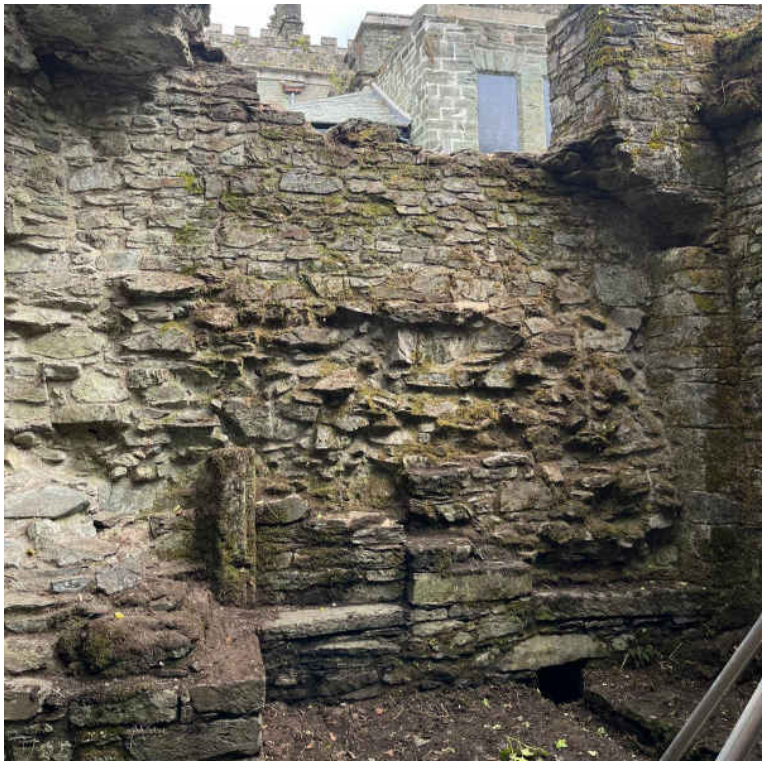

Image 10 internal view of north east elevation
After large amount of vegetation removal

Image 11 - Internal view of ground floor
with large amount of vegetation removed removed

Image 12 - Internal view of ground floor & low level south east internal elevation
after large amounts of vegetation have been removed

Image 13 - North east elevation
Consolidation of high level stonework

Image 14 - South east elevation
after high level vegetation removal

Image 15 – Top of wall to south west elevation
Root to be removed

Image 16 – Top of wall to south west elevation
Photo after root has been removed (prior to pointing)

Image 17 – Top of wall to the south west elevation
One of the roots removed

Image 18 – Top of wall to north west elevation
Root removed and section of stonework removed and rebedded in lime-based mix

Image 19 – Internal face of north west elevation
Root removed and section of stonework removed and rebedded in lime-based mix
(unfinished pointing at time of photograph)

Image 20 – Top of wall to north west elevation
Root removed and section of stonework removed and rebedded in lime-based mix
(unfinished pointing at time of photograph)