DESIGN, ACCESS & HERITAGE STATEMENT

The repair of the existing farm buildings at Langleeford Farm.

March 2019

DOONAN ARCHITECTS

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Overleaf Plate 01 Top - view of the main range looking north along the eastern elevation. Bottom left View of the western elevation of the main range and the southern elevation of the rear range. Bottom right - A view of the Pigsty

Introduction

Langleeford Farm is a remote farm in the Harthope Burn Valley, 7.5kn south west of Wooler, Northumberland. The buildings are used as farm buildings and are owned by the Liliburn Estates Farming Partnership.

The buildings have been identified for restoration work, which is to be part funded by Defra's Countryside Stewardship scheme, administered by Natural England.

Doonan Architects Ltd has been asked to prepare a Management Plan for the repair of these listed farm buildings, the purpose of the plan is to identify the works necessary to bring them back into a state of good repair, so they can continue to be used as part of the farming operation.

Tenders have been sought and the next phase of the grant, which is still to be agreed, is the delivery phase, i.e. to undertake the repairs on site. However, in order for the project to be assessed for the next phase of the grant, listed building approval for the repairs is required.

Description

The buildings represent the development of the farm over time and date from the late 18th century to the early 20th century. The earliest building, i.e. the main range which house the Stable and Granary dates to the later part of the 18th Century. The buildings on the site which are subject to the works include:-

- The Stable
- The Granary
- The Cart Shed
- The Store
- The rear Range
- The lean to shed
- The pigsty and Bridge Abutment

A full description and statement of significance is in Peter Ryder's Historic Building's Assessment, which is included with the application.

Listed Building Status & Significance

The Farm Buildings at Langleeford are Grade II Listed. They were listed in 1986. They are separately listed to the Farm house, which is listed in its own right.

Listing NGR*: NT9489121959*

Listing description:

Farmbuildings. Early C19. Random rubble with tooled-and-margined dressings. Painted. Welsh slate roof. L-shaped in plan.

Double doors to cart shed on left. Next to that a stable with central boarded door in alternating-block surround. Fixed 9-pane window to right and ½-slatted window to left in similar surrounds. Byre right of this, with granary over, has boarded door and ventilation slits.

Projecting range to rear has further byre with stable-type door and cart shed with segmental arch.

Gabled roofs.

Proposed Works

The buildings have been subject to a thorough condition inspection, which has been undertaken by Tristan Spicer AABC of Doonan Architects. The condition of the buildings is detailed in the attached condition report. The report includes the following:-

Building: (i.e. stable, store rear rear range etc.)
Element: (i.e. roof coverings, rainwater goods, roof structure, walls, floors, joinery etc.)
Location of the defect: (i.e. orientation, elevation, and number linked to an identification plan.)
Photograph of the defect: (to ensure it is easily identified.)
Description of the defect: (a brief description and possible cause of the defect.)
Recommended proposed repair: (this is based upon a sound conservation approach to ensure the original character is maintained and to ensure the repair is carried out in a traditional manner using traditional materials, but is sufficient to secure the building and reduce the maintenance burden into the future.)
Quantity: (i.e. such as the area of repointing, or the number of slates to replace etc.)
Priority: (The repairs identified will be categorised in accordance with BS 7913:1988 ‘Guide to the principles of the conservation of historic buildings’ into immediate (1-2 years), necessary (2-5 years) and desirable (5-10 years)).

Specification Reference: This refers to a specification for the various repairs. A copy of the specification document is included with the application.
Cost: (Our estimated cost of each repair element for budgetary purposes.)

The repairs are to be undertaken on a 'like for like' basis, however in a few instances the repairs will require alterations beyond a simple 'like for like' basis, such as the introduction of stainless steel bars across cracks, such a repair enables more of the original stonework to be retained by avoiding rebuilding large sections of masonry. Existing guttering will be renewed where the original is corroded or where plastic has been used in the past. New cast iron deep flow guttering will be used, which will be more effective in removing water from the roofs to the already limited number of down comers. The position of these will be adjusted in some instances to be more efficient when upgrading the underground drainage, which is lacking at present. The introduction of new underground drainage will result in water being moved away from the base of the walls eliminating the risk of subsidence. The other alterations include the introduction of doors to a number of openings where the door are no longer in existence. New doors enable the spaces to be more useful to the farming operation, which in turns helps to secure the future of the building.

In summary the repairs are as follows:-

1. ROOFS

The cart shed roof structure is reasonable, however there are rotten timbers at the eaves, and as a result these are not adequately secured to the wall plates leaving the roof prone to uplift. In order to repair the rafter feet it will be necessary to remove the slates. These are in reasonable condition, however there is evidence of displacement of slates, corroded nails and broken latts so the roof will benefit of having the slates re-laid with new battens and nails. All the original slates will be reused, and any shortfall will be made up of slates to match the existing.

The rotten section of rafters will be cut out and new timbers will be abutted the existing timber from the wall plate to the purlin. This is a technique that would have been used by farmers in the past to repair such defects as it is a simple honest and legible repair, which retains as much of the original fabric as possible.

The granary and stable roof is felted to the east, and is in reasonable condition, so only a few displaced slates will need to be re-fixed. The west face is in poor condition. It has been leaked in the past and has been roughly patched recently, to prevent the leaks, however this patch repair is not ideal. It is therefore proposed to relate the entire western face, along with renewing the lead valley gutter. All the original slates will be reused, and any shortfall will be made up of slates to match the existing.

As a result of the leaks to the roof a number of timbers are rotten, including the principal rafter of the trusses. These can be treated, however their structural integrity has been lost. In order to retain as much fabric as possible a new timber is proposed to be bolted to either side of the principal rafter member to provide the

necessary structural strength. This will result is a legible honest repair. A similar technique will be employed at the rotten purlins and rafters.

The trusses have had the metal ties removed in the past and this has result in the spread of the trusses and opening up of the joints. These ties will be refitted where they exist, and a new tie installed to prevent further spreading of the roof.

The store roof is corrugated metal sheeting. To the east side it is slightly corroded with a number of holes, the west side has already been replaced. The proposal includes for the replacement with new corrugated sheeting.

The rear range roof is reasonable, however it has undergone some emergency patching, and there are loose and displaced slates, along with broken latts and corroded nails. It is therefore proposed this shall be reslated. Again, the existing slates will be reused, with any shortfall made up with slates to match the existing.

The lean to shed has loose corrugated sheets and defected purlins. The purlins will be renewed to this modern shed and the sheets re-fixed.

The pigsty roof is suffering from a rotten lintel over the opening at the south. This timber is beyond repairs so it will be replaced in its entirety. This will require the reslating of the roof to undertake these repairs, however a number of the slates have slipped and require re-fixing. The existing slates can be reused.

2. RAINWATER GOODS

The existing installation is generally in a poor condition with corroded and missing components. Some emergency works have been undertaken, but these include plastic guttering on timber eaves board. This is not an appropriate or tradition detail so these boards will be removed and the new guttering will be installed on new traditional cast iron rafter brackets.

Currently a number of downpipes discharge directly to the ground at the foot of the walls, so there is a risk of subsidence to these walls. The installation of new drainage with soakaways enables the rainwater to be taken away from the buildings to eliminate this risk. There will be some relocation of downpipes to better suit the location of existing and proposed gulleys, which will be installed in locations to avoid excess drainage runs.

3. WALLS

As with many stone rubble buildings of this age the repairs include deep tamping and repointing. This improves the structural integrity of the walls together with improving the resistance to water penetration, therefore reducing the agents of decay, i.e. freeze/thaw and the crystallisation of salts as a result on on-going wetting and drying.

The mortar used will be a naturally hydraulic lime with a sharp sand, in a 1:3 ratio. Samples will be prepared so the mix and application can be approved. The new mortar is to match the existing as closely as possible.

The eastern elevation of the main range has been lime washed in the past. This has flaked and is peeling off in places and will require renewal. Lime washes are very likely to have been 'hot' mixed, i.e. using quicklime and slaking it in the process of mixing and application. The modern NHL limes used today would not have been available. The modern NHL produces a very thin lime wash which requires numerous coats. Such a labour intensive operation of applying several coats seems unlikely. Indeed on examining the existing lime wash it does appear in reasonably thick layers, indicating a 'hot' mix. It is proposed a 'hot' mix lime wash is applied.

There are a few areas which have been subject to cracking. In order to reduce the amount of rebuilding it is proposed stainless steel stitches are introduced within the joints to reinforce these areas. This is a common technique which allows the masonry to remain in place rather than be rebuilt to improve the structural integrity of a cracked wall.

The existing bridge abutment will be deep tamped as there is a significant amount of washed out mortar to the joints. The stones to the head of the wall will be re-bedded and a hard capping formed, which will be designed to shed water from the wall head to prevent water traps.

4. FLOORS

There is little works proposed to the floor as these are mainly modern concrete slabs. Some minor repairs are proposed to avoid trip hazards around existing doorways.

There is some rot to the first floor of the granary as a result of the previous leaks to the roof. This will require a proportion of the first floor timber floor boards to be replaced. These will be replaced on a 'like for like' basis.

5. WINDOWS, DOORS AND JOINERY

The existing windows and doors will be retained. They will be repaired where components are rotten. New timber to match the existing will be spliced in (cills, door boards and frames, so that the maximum amount of the original timber can be retained. The existing components will be rubbed down and redecorated to prong their longevity.

However, the door to the west of the stable is very decayed and beyond salvaging, as such this will need to be replaced. Existing ironmongery will be stripped and rubbed down and decorated for use on a new door. The new door will be a vertical boarded timber door to match the existing. Accoya timber is proposed, this process takes out the moisture from the softwood timber, so the timber has significantly better resistance to rot without any change to its appearance.

New doors are proposed on the rear range, this will enable the spaces to be secured, and therefore improve their usefulness, which will improve the functionality of the building hence improve its future longevity. The new doors are to be timber vertical boarded doors to match the existing so they will not appear out of place.

A new gate into the Pigsty is proposed as this gate is missing. A new 5 bar gate is proposed adjacent to the pigsty to secure the route into the farm, which will be useful when herding sheep and cattle.

In summary the repairs and alterations outlined above and detailed in the condition report will bring the buildings back into a state of good repair, they will improve the buildings usefulness, encourage use and therefore promote maintenance which will improve the long term prospects of the building. The alterations are sympathetic using traditional materials to match the existing, as such will have a negligible visual impact. It is considered the repairs works do not harm the buildings. Indeed the repairs will be a positive enhancement to the buildings, which are currently in need of repair.

Design and Access

USE

The buildings are used as part of the farming operation. Given their poor condition their use is limited, however this will be improved by the works

AMOUNT

The works to the buildings will be maintained within the existing volume of the buildings. No new space is proposed.

LAYOUT

The works are to existing buildings, the form of which will not be changed by the repairs.

SCALE

The building range is scaled from single storey byres to two story byres. No additional space is to be created.

LANDSCAPE

The existing gravel surface around the buildings will be maintained and made good once the improvements to the drainage have been undertaken.

APPEARANCE

There are no significant changes to the buildings, only repairs carried out to the existing buildings. New doors are proposed but these are to match the existing.

ACCESS

Access to the site will be unchanged.

ECOLOGY

Emergence Bat Surveys have been undertaken. Refer to Ruth Hadden's Report. A small number of bats have been identified and the re-roofing does have the potential for disturbance. As such a (low impact) Bat Mitigation Class Licence will be required. The works will be undertaken outside of the hibernation period, and bat provision will be included by ensuring suitable crevices are left open. In addition, a follow up emergence survey will be required 12 months after the works has been completed.