Upwell Hall Environmental Transformation project

Introduction

Upwell Hall is a focal point at the centre of the village of Upwell. It was built in 1868 after public subscription to fund the build and donation of the land on which to build it. In the 153 years of its life it has been extended and has had cosmetic work done to it but the structure is still 19th century. As such it is very poorly insulated, the heating system is incredibly inefficient, the wiring is very old. The hall was purchased in 1996 by the parish council as the previous owner had closed it. Since then it has been run by a team of volunteers on behalf of the council. Given the carbon emissions level the UK has signed up to in accordance with the Paris Climate Agreement and in conjunction with the BCKLWN Climate Change Policy we wish to transform the energy profile of the hall. We wish to install solar panels to generate our own electricity, replace the heating system with an environmentally friendly air to air system and the thoroughly insulate the building to a high standard. This project will help reduce the carbon emissions from activities within the borough as well as reducing the running costs of the hall going forward which bolsters its viability hence safeguarding it for future generations of residents of the parish.

Work Planned

Install Solar panels:

- Fit solar panels to one side of main roof away from the road
- Consider viability of having a battery system to store daytime electricity for use in events in the hall after dark

Inside:

Heating & Hot Water System:

- Strip out old oil fired heating system including oil tank, boiler and radiators.
- Install appropriate strength environmentally friendly air to air heating system to main hall and committee room where old inefficient electric heaters should be removed. This form of heating is low energy. However, with the inclusion of the solar panels in the project , the power for the system, at least during daylight hours would come from the electricity generated onsite making them even more efficient. The way this type of heating works is the hall would have its internal temperature maintained continuously at a comfortable level all winter which will also help keep the building in good condition as damp etc would be eliminated. It could also be used to cool the building during summer for the comfort of hall users.
- New heating system to have internet controls to allow remote adjustment.

- Hot water in the toilets and kitchen currently come from a hot water tank heated by the oil fired boiler. This is very inefficient as the water is stored for long periods and has a long run to reach the taps so that the tap is often turned off before the hot water reaches the taps.We propose installing electric water heaters in each room which would provide instant hot water on the infrequent occasions it was needed; a significant amount of any electricity used would be generated onsite via the solar panels.

Entrance Hall:

- Create utility cupboard for new electrics board and alarm systems.
- Fit partition wall and new internal doors to separate vestibule from corridor to gents toilet. This corridor will need an access door from the vestibule and from the main hall reception area as well as a heating solution (possibly ducted air from heating system).
- Fit new self closing doors to entrance and doorway to main hall.
- The creation of a closed vestibule with self closing doors creates an effective air lock which will greatly reduce hear loss from the hall when people enter and leave the building, which can be quite frequent during some events. the creation of an access to the gents toilet which allows people to access the toilet without entering the vestibule area (as they do currently) will also greatly reduce heat loss.

Reception Area:

- Insulate ceiling of this area to reduce heat loss, this area of ceiling is currently not insulated.
- Enlarge the reception desk/ serving area in the reception area
- Replace flooring inside serving area with new easy clean surface
- Fit oak effect panelling to outside of reception desk (we will use the same panelling to replace panelling in wooden partition between main hall and reception and to new bar area in main hall)
- These changes will improve the functionality, appearance and energy profile of this part of the building

Main Hall:

Th main hall is the original hall built in 1868 with high vaulted ceiling and a single skin brick wall. Over the years we have had the floor replaced and installed a damp course. We installed double glazed windows some 20 years ago to all windows save the ornamental circulate window in the gable at the north end of the building. The roof was replaced some 15 years ago and insulation inserted between the rafters and the tiles at that time. However, there is considerable heat loss through the doors and walls.

- Remove panelling and fit insulation to all external walls, re-board and plaster walls (finish of all internal walls to be plaster not current wood chip paper)
- Fit glazing solution to circular window in end wall to improve insulation
- Fit new insulated false ceiling inside bar area
- Install new insulated ceiling in bar seating area with LED roof panel lighting (dimmable)

- Report on some cracks and teardrop deformation visible near the major roof supporting beams, repair cracks and strengthen the area if necessary
- Cosmetic changes to bar to incorporate matching oak effect panelling used in reception and partition wall
- Fit new doors/frames to cloakroom / storage area to the right of door to the kitchen as well as insulated fire doors to emergency exits
- Remove concealed tank for heating system from behind false wall above door to kitchen to allow one flat wall to be restored

Kitchen / Link corridor

- Make good and redecorate where electrics has been removed
- Area currently housing boiler and water tank may need remodelling, this area may serve to hold battery system for solar panel system.

Committee Room

This room was thoroughly renovated two years ago and insulation was placed in the ceiling at that time. However, the heating is inefficient electric heaters and there has been water penetration damage here over 4th recent winter.

- Repair water damage due to water penetration through the outer wall.

Disabled Toilet

Improve appearance of disabled toilet including fitting doors to this and kitchen to match doors to committee room and ladies toilet

Tower Area

When the hall was built in 1868 the main entrance was though a two storey tower at one corner of the building. This area is used a as tore and fire exit on the ground floor and a storage office on the first floor. The way this has been built makes any renovation very difficult. The plan will involve improving the doors to make them insulated fitting fire doors, insulating the walls and making the office more usable.

Electrics

The hall has not been re-wired for many years and a lot of the installation is now antiquated. The electrician we use to maintain and check our systems tells us the system is no longer repairable and will need replacing with modern safe systems in line with building regulations.

- Rewire the parts of the hall where required
- Replace all current electric boards with modern board in new utility cupboard in vestibule
- Change all lighting to low energy lighting (choice of fittings to be aesthetically sympathetic to style of hall)
- Increase electric sockets in stage area for use by bands etc performing on stage
- Install better stage lighting

- Replace extractor fans in bar seating area (if still needed to help with condensation once air to air heating/conditioning units installed). If these fans are not required in the new system the existing fans will need replacing and the holes in the outer wall will need to be repaired and the internal sites re-boarded, insulated and plastered with the rest of the internal walls.
- Work with new intruder alarm and security firm (Farmwatch) to adapt system to their requirements (we have a quote from Farmwatch)
- Ensure fire alarm effective and up to modern standards.

Outside

The outside of the hall has had very little work done on it over the years and there is now considerable remedial work needed due to eroded bricks, loss of pointing cement, leaking roofs, cracked features such as window sills and lintels etc. A surgery by a builder had identified the following work that needs doing.

Roof

- Replace all the flat roofs over bar area, kitchen and toilets with new insulated flat roof
- Investigate and correct faults responsible for water ingress in committee room, possible issue with flashing
- investigate and deal with an area of water ingress possibly from problem with flashing at north end of hall roof and repair cracked cement at top of gable end

Walls

- Repoint where necessary, correct water penetration on committee room outside wall
- Replace or repair eroded bricks where necessary
- Repair/replace stone window ledges
- Repair crack in stone lintel above original door in tower section

Main Entrance

- Architect to redesign attractive entrance
- Replace outer metal door with glazed insulated automatic door to aid access for disabled and improve heat conservation in the building.
- Preserve defibrillator location

Other entrances

- Replace all outer doors with insulated doors that fit snuggly and are approved as fire exits

Garden area

The hall has some raised beds in front of the building between the pavement and the building. It also has a car park and behind the car park and the building there is a grassed area with picnic tables and outside gym equipment. This area is used for events to spill out onto in the summer months. As part of the project we plan to open up a patio style entrance on the back of the hall and develop a paved area for outside seating adjacent to

the garden area. this will allow events to spill out organically into the garden in good weather. We also hope to have a canopy over the seated area to help with more all round year use. The opening of the patio doors and the provision of outside seating will mean improved ventilation for the bar area which will help with reducing Covid-19, or other future virus, transmission.

Funding

The hall was purchased from a private owner by the parish council for the community in the 1996. As a building owned by a public body we have always found it difficult to get grant aid from the usual sources for non-council owned halls. Most of the work that has been done on the hall over the years has been voluntary or funded by money raised by the use of the hall. The level of subsidy the hall has received from the council has varied over the years but for many years it has verb completely self sustaining. However, because of the paucity of funds projects have been done in small chunks or put off indefinitely.

At an extraordinary public meeting of the Parish Council in August 2020 the council agreed to launch this project. The council have agreed to fund it but are also keen to get as much grant aid as possible. **We have been awarded £56000 from BCKLWN CIL** and we will also be applying to Mick George Community Fund for up to £30000 support with the electrical aspects of the project. We hope to receive a grant of up to £200000 from the Norfolk Social Infrastructure Fund. The parish council is committed to bridge any gap between funds raised and the cost of the project.

Road Map

The first step of the project was to get an architect to draw up plans of the hall and to produce a schedule of works to submit to builders to get tenders for the job. This stage was completed in June 2021. We originally estimated the total cost of the project would be between £150000 and £200000, however, due to the increase in the cost of building materials in 2021 the estimated cost has doubled.

We have instructed a firm of architects and they have prepared and circulated a tender package. Tenders have just been received and scrutinised by the architects which has resulted in the two tenders to be very similar in the region of £400000. The parish council plan to decide on a builder at an extraordinary meeting set up for September 6th. We are applying for grant funding and we hope to start the work at the start of 2022 at the latest.

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