



National
Trust

Restoring the past to preserve the future



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PTSG has been involved for many years in maintaining lightning protection systems at various historic and protected buildings for the National Trust. John Warren is Operations Director at one of the Group's Electrical Services offices in the midlands and has always held these projects close to his heart, taking special interest in their design so that the lightning protection systems are carefully concealed.

One project that stands out is Falkland Palace in Scotland, a very interesting site consisting of a church, which is still in use, and an adjacent room. This site was used as one of the filming locations for the 2008 film *Outlander*.

PTSG worked closely with the trust to ensure all areas were maintained, enabling the public to enjoy full access whilst the work was undertaken. When engineers installed the earthing connections to ground, an archaeologist was on stand-by in case any significant artefacts were unearthed. Rather than using shovels and pickaxes, PTSG's engineers were advised to proceed using small trowels and paintbrushes and asked to very carefully remove the top layer of soil!

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Each project we work on has its own individual requirements and each site has a dedicated manager who knows every detail of the building's structure and history, enabling him (or her) to advise on exactly what we can and can't do. At some buildings we can drill directly into the stonework; at others we must use a very particular type of clip and drill to go into the masonry or mortar.

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Finding materials that blend into historic buildings is an ever-present challenge for the National Trust. For example, new copper is extremely shiny and stands out far too much against aged or historic building materials. In a recent project, our engineers tested a piece of copper over a six-month period to produce the desired “weathered” appearance that would complement the building.

John Warren tries to use the same engineers for each project for the National Trust because they have an understanding of the unique requirements. They also have a great passion for the type of highly specialised work required at these sites. Working with the trust also involves a lot of legislation, which is set in place to protect the UK’s national heritage. An average project can take up to 18 months to organise, with an enormous amount of planning and meetings with numerous committees.

PTSG’s engineers are privileged to access areas that aren’t normally open to the public, including the old, protected parts of buildings where absolutely nothing has been changed.

They are highly trained and experienced in a range of access techniques, enabling them to reach even the highest, most challenging parts of all kinds of buildings. In its work for the National Trust, the AFI Group provides specialised machinery including “spider machines” (mobile elevating work platforms, or MEWPs). They were used very successfully at Staunton Harold church recently.

The project, which saw PTSG improve the existing lightning protection system at the church, involved a great deal of planning. Residents who live on site were concerned about work being undertaken which might cause damage to the historic structure.

However, upon completion, not a footprint from the machine was left behind. Even the earthworks completed by PTSG’s engineers showed no signs of excavation, only the new shiny copper down tapes, which will discolour in time, gave any indication of the work undertaken.

It’s nice to know that we have had a small but important part to play in maintaining the high standard of National Trust sites.

