



Resin Bound Paving - GeoPave

- Product:** *GeoPave - Adbruf's resin bound surfacing system*
- Project:** *Chelsea Royal Hospital*
- Client:** *Norland Managed Services - www.norlandmanagementservices.co.uk*
- Principal Contractor:** *Gibbs Surfacing - www.gibbssurfacing.com*
- Specialist Contractor:** *Cirencester Civil Engineering
www.cce-driveways.co.uk*



Background

The Royal Hospital is located in the Chelsea district of central London, now the Royal Borough of Kensington and Chelsea. The hospital was commissioned and founded in 1682 by King Charles II for soldiers who were unfit for further duty due to injury or old age. The picturesque building was designed by Sir Christopher Wren, his inspiration was the "Hôpital des Invalides" in Paris. It has become the home of the Chelsea Pensioners, veterans of war and is a monumental part of London. The historical building is as breathtaking today as it was on its completion in 1682.

Figure Court, one of the oldest and renowned areas of the Royal Hospital takes its name from the golden statue of King Charles II being located at its heart. This prestigious area required a new surface that would enhance the elegant backdrop, have low maintenance requirements and be suitable for disabled access. The pensioners found the existing gravel footpaths difficult to negotiate.



Design Brief

Norland Managed Services had come across resin bound aggregate pathways installed in Cadogan Square, London that they thought would be a perfect solution for the Royal Hospital. The pathways were attractive, flat, even and complemented the natural surroundings.

Specialist contractor Cirencester Civil Engineering installed the resin bound aggregate surfacing at Cadogan Square. Cirencester Civil Engineering is a UK based company working on projects nationally and internationally, delivering high quality surfacing. They are specialist installers of resin bonded and resin bound aggregate surfacing, gravel and block paving. Their portfolio consists of some very prestigious projects from Cardiff Castle, Hampton Court to Buckingham Palace. Cirencester Civil Engineering acted as advisors, recommending the type of material suitable for the sub base, the type of resin required and the range of aggregate mixes that were available.

Surfacing prior to the final resin bound aggregate wearing surface was carried out by Gibbs Surfacing - a Swindon based surfacing contractor that provides high quality asphalt and bitumen macadam surfacing solutions. Cirencester Civil Engineering recommended an asphalt sub base that Gibbs Surfacing installed.

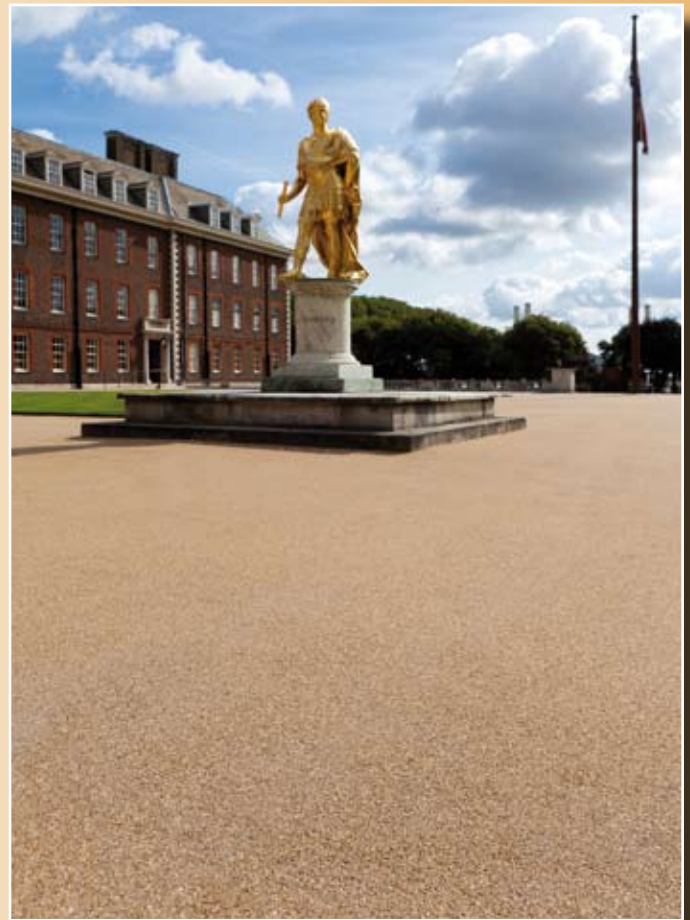


Solution

To give a visually pleasing and durable surface, Cirencester Civil Engineering recommended using GeoPave; a resin bound aggregate surfacing system manufactured by Adbruf. GeoPave is a two part polyurethane hybrid resin binder system which was combined with a blend of selected aggregates and installed to give a highly attractive, smooth finish. GeoPave is environmentally friendly and is ideal for wheelchair access, a requirement of Norland Managed Services.

An important component of resin bound surfacing systems is the aggregate as this gives the system unique colours and textures. A wide range of natural aggregates can be used in conjunction with GeoPave. These range from golden shades of quartz to bold red granites. Cirencester Civil Engineering presented a number of blends appropriate for the Royal Hospital to Norland Managed Services who decided on Harvest Bronze 6mm as this complemented the existing stonework.

Initially, a sample panel was installed to enable Norland Managed Services to confirm and approve the new resin bound aggregate surfacing solution prior to commencement of the project.



Installation

Gibbs Surfacing laid a substrate of approximately 2,205 square metres of new asphalt. Cirencester Civil Engineering then followed closely behind, installing GeoPave resin bound aggregate surfacing.

GeoPave was installed 16mm thick onto the asphalt substrate. The two resin components were first mixed thoroughly together and the resultant mix was poured into a suitable mixer pre-charged with the Harvest Bronze aggregate blend. The resin and aggregate were combined until the aggregates were fully coated with resin. It was then transported to the application area using a polythene lined wheelbarrow. The system was roughly levelled and finally smoothed using a hand trowel until a flat even surface was achieved. The system was allowed to cure.



Product Details

GeoPave is a resin bound system formulated using bio-mass materials. It is therefore environmentally friendly, durable, but flexible due to its thermoplastic characteristics so that it expands and contracts with the substrate. GeoPave is pervious and so is an ideal solution for tree pits, swimming pool surrounds or to be used as part of a SUDS compliant surfacing system.

Uses include:

Access roads, driveways, landscape schemes, footpaths, patios, flat roofs/balconies, tree pits, new developments and as part of a SUDS system.



Client's Comments

**Lee White - Contracts Manager
Cirencester Civil Engineering**

"Cirencester Civil Engineering would like to thank Norland Managed Services for the opportunity of working for the wonderful institution that is the Royal Hospital. Our crews would also like to say thank you to the Lord Lieutenant, who invited the lads to share breakfast with the Pensioners in the Great Hall. It was an honour and will be remembered for years to come. We look forward to returning to undertake further works in the near future."