The ground under the area of the exhibition site and the dome was subject to extensive statutory remediation works. The end use of the majority of the area required it to be covered with hard standing. Based on the above, the capping system comprised a marker layer placed on the existing ground, overlain with approximately 500mm depth of clean hardcore. This provided a clean working surface for the construction of the dome and associated structures. In landscaped areas around the dome the capping system comprised a 200mm granular capillary break overlain by a geotextile separator and a 500mm to 900mm layer of well compacted clay, with a permeability of 1×10^{-9} m/s.

Additionally a low permeability gas membrane was installed under the whole of the Dome.