

Bomanite Pervious Concrete Systems

PROJECT PROFILE

CULLET DRIVE, QUEENBOROUGH

PROJECT INFORMATION

Project Description and Brief

The Isle of Sheppey is a major centre for storage and pre-delivery inspection of imported vehicles. Much of the island is, however, low lying marsh or scrub which has in recent years been reclaimed by vehicle storage companies. Storage areas have generally been constructed of compacted shale, minestone, slag or stone. On such a scale, however, little can be done to lower the natural ground water level. After rain, the areas drain slowly and continuous vehicle movement can, therefore, turn the adopted surfacing into expanses of mud and water. In dry spells, the mud then becomes dust forming a cycle of problems for the user. In 1980 we were contacted by A G Weeks and Partners of Maidstone, Consulting Engineers acting on behalf of Pre-Delivery Inspection Limited of Queenborough. They themselves had encountered this problem. Their process of de-waxing and rustproofing were hampered by the abrasive coatings thrown up from the storage areas.

Project Specification

A surfacing system was called for which would solve the above problems and be structurally sound so as to cater for the long term loadings of continuous vehicle use. The Planning Authorities had insisted that the surface water run-off should be no greater than the existing surface in order not to overtax the islands stream and culvert network. A brief was discussed with both Consultant Engineer and the Plant Manager. As a result, a Grasscrete system was adapted to provide a low cost, self-draining dust free surface. GRASSCRETE GC3, 76mm deep, continuously reinforced cellular concrete surface was laid by our Contracts Division on a 100mm thick prepared sub-base. The normal soil and grass or gravel filling to the pockets of the system was in this case omitted, the resulting void enabling the previous rate of drainage to be maintained. Instead of flooding, however, any head of water is now restricted to the pockets of the new surface. The vehicles are, therefore, able to park on a consistent, clean, dry surface. The system in this form has now been operating successfully since then and has proved to be a cost effective major benefit to its users.

BEFORE CONSTRUCTION Cars parked on poorly draining minestone, influenced by the naturally high water table

AFTER CONSTRUCTION The cellular surface without pocket infill allows ground water to rise and fall. The surface however remains clean and load supporting.

PROJECT DETAILS

LOCATION

Isle of Sheppey, England

CLIENT

PDI Limited

GENERAL CONTRACTOR

Chantry Contractors Limited

INSTALL COMPLETED

1980—1983 (phased)

SQUARE FEET

11,400 m²

BOMANITE SYSTEMS

GRASSCRETE GC3 (76mm thick)