



M65 CENTRAL RESERVATION DRAINAGE CHANNEL CASE STUDY





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CEMEX'S PERMEABLE CONCRETE PRODUCT 'PERMAFLOW' COMBINED WITH EXCELLENT SERVICE PROVIDE A SOLUTION TO A TRICKY DRAINAGE PROBLEM ON THE M65.

CEMEX were approached by Roocroft Road Restraint Systems to provide a drainage solution which was to be utilised as part of a newly installed concrete barrier and central reserve hardening on the busy M65 Motorway.

→ THE CHALLENGE

This section of motorway had been prone to frequent flooding so a solution was required solve this problem. The client was looking for an alternatives to installing 'V' channel drainage along either side the concrete barrier on a busy motorway as replacement to an existing channel, potentially utilising the ability of the sub-base to absorb water. This approach would require installing a permeable surface in the central reserve either side of the new concrete barrier. After engagement meetings with the client's main contractor, Roocroft, it was agreed that our Permaflow product was an ideal solution for the application. The main challenge to overcome was the awkward nature of placement along such a thin channel section.

→ THE SOLUTION

Key to solving the problem was gaining an understanding of our customer's needs, so from the outset CEMEX developed a collaborative working relationship with our customer. We recommended our permeable concrete product 'Permaflow' as the solution.

CEMEX worked closely with our customer explaining the product and providing product technical information.

The advantages of using the Permaflow system are that it improves drainage by providing water infiltration and preserving natural soil conditions. The unique design of the Permaflow permeable concrete can benefit a range of surface areas such as pavements, pathways, road and car parks.

Through careful mix design, the permeable material was supplied as a surface course with 25 N/mm² compressive strength and minimum infiltration rate of 30 litres/min/m². In total CEMEX provided 1000m³ of Permaflow.

The customer was extremely impressed with the performance of our product during trials and agreed to use Permaflow as the solution.

→ THE OUTCOME

The Permaflow solution provided several advantages over traditional drainage for the ultimate client LCC; saving both time and money.

The final solution involved construction of the central reserve hardening using the permeable Permaflow concrete, eliminating the need to install concrete channels. Speed of construction was also improved as using Permaflow provided both drainage and hardening in the same operation.

The Permaflow solution has performed excellently improving prevention of flooding in the area. The customer is looking to utilise this solution in another location on the M6.

→ KEY FACTS

- » Contract - M65 Central Reservation
- » Year Completed - 2015
- » Customer - Roocroft
- » Client - Lancashire CC
- » Volume - 1000m³
- » Main Product Mix - Permaflow

