Problem
The original design called for conventional stone subsoil drainage but as the aggregate had to be commercially acquired, the cost was substantial and a more economically viable option was sought.

Solution
Flo-Drain was offered as an alternative providing a 10% cost saving. 12 000 m Flo-Drain 1000 and 2 000 m Flo-Drain 1650 were installed along the shoulder on the median and edge of the road where required.

A full soil grading was obtained from tests of the in situ soils and analysis done on geotextile compatibility and flow capacity to assist the contractor with acceptance of the proposed Flo-Drain alternative. The permeability calculated was > 10 times that of the in situ soil. A check was done on transmissivity of the Flo-Drain and the infiltration and carrying capacity of Geopipe and found to be adequate. 90% passes 2 mm sieve, providing a large factor of safety against installation damage and providing the contractor opportunity to use narrow-width trenching equipment. A hydraulically compacted coarse river sand was used to backfill the trench.

Benefits
Besides the cost-saving benefit, the Flo-Drain system offered a solution that was considerably quicker to install than a standard aggregate drain, with minimal disruption to traffic.