



Solving a problem by coming up with a different approach is what we do here. Recently, Mercury Energy needed to replace its aging and corroded guardrails that enable access to critical infrastructure at Maraetai. True to all work of this nature, nothing was straightforward. It had all been originally built onsite during construction. Working along usual steel construction lines for the replacement job would have demanded significant amounts of measuring, design, fabrication and onsite adjustment. To boot, costs would have mounted up pretty quickly, especially with the need for an onsite crane for installation.



In typical fashion, at Avalon we approached the scenario from a new angle and came up with the idea of using Fibre Reinforced Plastics from a Tauranga company, FRP Products Ltd. This product would allow us to fabricate a lightweight man-portable build onsite: a simple, innovative and cost-effective way to resolve complex issues easily. We could install a construction that would not corrode in the wet environment, would be non-conductive in the electrical environment and could be delivered without a hot work permit. It turned out that as well as installing guardrails and handrails we also had to convert two steep ramps to a stairway. This challenge too was solved using FRP grating which provides excellent slip resistance, even in cyclones!

FRP's multiple variable components allowed us to easily work around the myriad of complex bends and infrastructure obstacles. Fully compliant to AS/NZ standards and in a wide range of safety colours it will suit every conceivable situation. There's the added advantage that should any damage occur components can easily be replaced without compromising the integrity of the structure.