



MACCNEWS

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Maccaferri Celebrates 20 Years - A note from the Managing Director -

Maccaferri NZ Ltd was incorporated on 27 September 1988. It's hard to believe that during this financial year we will be celebrating 20 years in business - my how time flies by when you are having fun!

While I am personally not very nostalgic about such events, I am none the less very proud of the achievement and in particular, to have had the opportunity to start the business with the Maccaferri family and to progressively take this new business from the cradle to the leading position that Maccaferri has earned in the region as an engineering solutions provider, today employing 30 people throughout New Zealand. Of course, our extended family involves many more indirectly through our partner distributors and relationships nation wide and throughout the Pacific and Papua New Guinea.

With the five companies in our Geofabrics Group across Australasia, TenCate partners, associations across Maccaferri and together with our other global Principals, our network today stretches around the world and we truly are part of a very strong and vibrant international engineering community.

I believe that our greatest strengths at Maccaferri NZ lay in our people, our commitment to service and our vision for the future and it is appropriate to touch on these factors. Our people and their collective ability to communicate reliably and honestly are our greatest asset, and I commend our staff for their consistent efforts to deliver this mantra.

Over the years Maccaferri NZ staff have developed many techniques that were world firsts. **Terramesh** and various combinations of this system are testament to such Kiwi innovation.

Our core civil infrastructure business currently has a number of exciting initiatives that will be rolled out during the 20 year anniversary. We are in the process of introducing upgraded technology to the pavements sector with the new **TriAx™** geogird offering yet further substantial savings in pavement construction and benefits to resource sustainability.

We are also widening our water management and containment package with several products such as **Geotube®** for sludge dewatering with strong environmental positives. We also have some new and innovative wall systems and a new rock fall safety fence and barrier system to introduce.

Of particular excitement for me has been the coastal R & D work that has been done with the **ElcoRock** sand filled coastal containment system that now allows "soft", low impact and user friendly amenity alternatives to traditional rock armour.

Of all our solutions, the **ElcoRock** is something that I am most proud of due to its feature benefits that flow from the system in a problem area that to me has been a real blight for too long on too much of the NZ coastline. I think **ElcoRock** really does bring a sensible and practicable solution to many coastal problems.

Our vision for the future will to see Maccaferri develop beyond it's core civil infrastructure roots, into new business sectors for building products, the primary industry sector for agriculture, horticulture, viticulture, aquaculture and into industrial products. The fledgling building sector is almost 3 years old now and performing very well and we have recently made new appointments to manage and develop opportunities in the primary and industrial sectors.

So times definitely remain very interesting and as you may sense, there are many exciting initiatives to be put into action. Our staff look forward to being able to share our new developments with our customers as they travel about the country.

Finally, a "VERY BIG THANK YOU" to you, our customers for the opportunity to service your needs and to assist with your application enquiries. I am very grateful and humble for the loyalty and trust that you place in the Team at Maccaferri and you have my commitment that we will continue to strive to earn your ongoing respect and business custom.

Chris Brockliss - Managing Director

Also in this Issue

Clive River - Stopbank Protection Work.....	2
Building Corner - Beaumont St Apartments.....	3
TriAx™ - A Revolution in Geogrid Technology	4
Staff Introductions.....	4



Clive River - Stopbank Protection Work

The Clive River acts as the main outlet for the other rivers on the Heretaunga Plains, which under flooding conditions backs up from the sea resulting in residential properties along the saline sections of the Clive River at risk from flooding.

Maccaferri Galfan + PVC coated gabions and Reno mattresses were chosen as the most environmentally friendly and cost effective solutions to correct and control the flow of water helping to prevent flooding of property, and preventing erosion of stream beds and edges of banks.

Reno mattresses were assembled on the stop bank and lifted into place using Maccaferri's Reno frame onto the soft marine silt. A layer of Bidim was placed on the underside of the gabion and Reno mattress units to act as a filter preventing sediment loss through the stone infill. Once the Renos were installed, the stepped gabion wall was then constructed on top with the first layer of gabions positioned using Maccaferri's gabion lifting frame.

The use of gabion and Reno mattress lifting frames offers contractors the ability to rapidly construct gabion walls and revetments in difficult terrain with poor access. A crane with lifting capacity to support approximately 4.5 tonne and with sufficient reach is required for these applications. This method of construction has been used in New Zealand and worldwide and has been well documented in various Maccaferri brochures.

Gabion and Reno mattresses offer environmentally enhanced retaining and revetment structures, a fact supported by the World Wild Life Fund research and publications on various stream and river protection systems.

The use of fresh concrete structures in waterways is to be discouraged as it has shown to raise local pH concentration to a pH of 10 or more, which is very detrimental to local species that habitate the waterway. The voids in the stone infill of gabions and Reno mattresses provide a safe habitat for the various marine species that live in these waterways. Gabions structures can also allow water to re-oxygenate and this helps improve water quality and biodiversity in the waterway.

In addition, vegetation is able to regrow within sediment deposits that accumulate or soil and plants may be deliberately included in the gabion works. The mesh allows plants to entangle and become one with the structure and provides additional resistance to damage during flooding. The use of Galmac + PVC coating (a Zinc / 5% Aluminum alloy Mischmetal) on the units provides enhanced corrosion resistance of three to four fold over normal galvanised wire, providing optimum longevity to the structure.



Installation of Reno mattresses



Gabion installation in process



Completed project with vegetation

PROJECT

Stopbank Protection

LOCATION

Hawkes Bay

CONTRACTOR

Hawkes Bay Regional Council Works Group

SUBCONTRACTORS

RockCage NZ Ltd, Burgiss Contracting

DATE

May-September 2006

PRODUCTS

PVC Gabion, Reno Galmac PVC, Bidim

BUILDING CORNER: Beaumont St Apartments

PROJECT
Beaumont St Apartments

LOCATION
Victoria Park, Auckland

CONTRACTOR
AJ Russell Bricklayers

SUBCONTRACTOR
Aotea Paving

DATE
November 2005

PRODUCT
VERSIPAVE

VersiPave® high strength paver supports eliminate the need for the use of a sand binding or mortar bedding when laying pavers, resulting in reduced weight-bearing loads on the building structures. The system is efficient and expedient to install. A major benefit of the system is that the podium surfaces will quickly dry as the water drains away.

These pictures show 400mm x 400mm pavers positioned and supported on adjustable chocks to help compensate for supporting structure and waterproofing membrane unevenness and/or grade differential.

This application shows part of the 400m² of paved podium areas with uniform spacing between the pavers created by the unique formed spacer which is part of the **VersiPave®** system.

The void between the substrate and the pavers also improves thermal insulation and provides ready access to the waterproofing membrane and drainage outlets with high drainage flow rates. The void under the pavers can also be useful for installing or later access to cabling or other installed conduits.

Whilst the system is relatively simple to use there are many techniques involved to ensure an even surface is achieved and a reputable professional paving company such as Russell Bricklayers and Aotea Paving are experienced in these installation techniques.



Membrane protected but readily accessible



Close up of the VersiPave® system, C/W chocks



Completed job

TriAx™ - A Revolution in Geogrid Technology



Tensar International has almost 30 years of experience in analysing and optimising the performance of geogrids. Drawing on this technical knowledge and expertise, Tensar has radically re-engineered the fundamental structure of geogrids to create a revolutionary new product. The **TriAx™** geogrid is the culmination of this research and represents the future of geogrid technology, using one of the most stable forms - the triangular structure.

The unique **TriAx™** structure incorporates several characteristics which combine to create an optimal structure that outperforms conventional biaxial geogrids in trafficking applications. When combined with a suitable aggregate **TriAx™** produces a mechanically stabilised layer with exceptional performance.

Tensar International and Maccaferri New Zealand are excited to announce the introduction of this award winning new Tensar Geogrid solution for the Civil Construction Industry. Maccaferri New Zealand and Tensar International conducted a series of technical seminars at the major centres throughout New Zealand in July this year, and for those of you who attended we hope that you gained an informative insight into how the product can work for you and the benefits it can offer. Building on Tensar's extensive field experience and technical knowledge, this new and exciting product development has been designed to outperform conventional solutions and offer greater savings to construction time and cost.

TriAx™ offers:-

- A radically different solution mechanism and performance.
- Proven performance supported by full scale trials.
- A solution that will ensure your project outperforms conventional design methods and delivers cost benefits.

If you would like a **TriAx™** information pack or more information on this product please email: Felicity on fbartlett@maccaferri.co.nz, or you can contact our customer services team on 0800 60 60 20.

Staff Introductions



John Clark

John joined Maccaferri NZ in July 2007 and manages the South Island operation looking after the Upper South Island and West Coast areas.

John has over 20 years in the Civil Engineering Industry, mainly working for contractors with 10 years as a project manager. He initially started as an Engineering Officer Cadet with the Ministry of Works in Alexandra and worked on major projects such as Opuha Dam, Waimakariri Irrigation Canal, SH1 Maungaiti Hill near Tokoroa to name a few. Outside of work he spends time with his family and enjoys trail bike riding.



Eric Ewe

Eric joined Maccaferri NZ 18 months ago and is part of the company's technical support team. He migrated to NZ from Malaysia bringing with him 10 years of design and construction experience in soil reinforcement products, having worked with the likes of Maccaferri and Tensar

Eric enjoys swimming and fishing when not doing design work. For technical enquiries related to soil reinforcement products especially or related design suggestion service ranging from retaining walls, slope/embankment reinforcement, slip repairs to pavement stabilisation, please email: eewe@maccaferri.co.nz.

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