



**GALVANIZING  
ASSOCIATION**



THE OFFICIAL NEWSLETTER OF THE GALVANIZING ASSOCIATION OF NEW ZEALAND

## Welcome to the GANZ Newsletter

October 2010



Welcome to our refurbished website and the first of our online newsletters. To coincide with the editorial in NZ Engineering News this month we are excited to present the best of the galvanizing industry news to you in this way and we hope that you find plenty of useful information at your disposal.

In this edition of Bright Ideas we're taking a special look at some of the most recent galvanizing work that's been undertaken around the country. Whilst times have been tough and may get tougher still – according to some in non-residential construction fields – there have been some notable and interesting projects of late.

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Of course the Mount Eden Prison is a project that has been very visible and interesting for Aucklanders who drive into the city on the motorway, to watch grow and change. The Te Rewa Rewa bridge over the Waiwhakaiho River in New Plymouth is especially impressive. Other Case Studies include the 6300 seat brackets for the Forsyth Barr stadium in Dunedin, the attractive fencing of the Mt Roskill cycleway and the roading requirements for the SH20-1 Manukau Extension Project which has been a cooperative effort by various hot dip galvanizers.

It is pleasing to note that GANZ is now working much more closely with HERA (Heavy Engineering Research Association) and we see this being advantageous to all members of the galvanizing industry. Cooperation and sharing of knowledge is what GANZ is all about and we invite everyone working in the construction industry to make use of our new site and the expertise of GANZ members who are committed to building the profile of the galvanizing industry and promoting the long-term sustainability that our processes embrace.

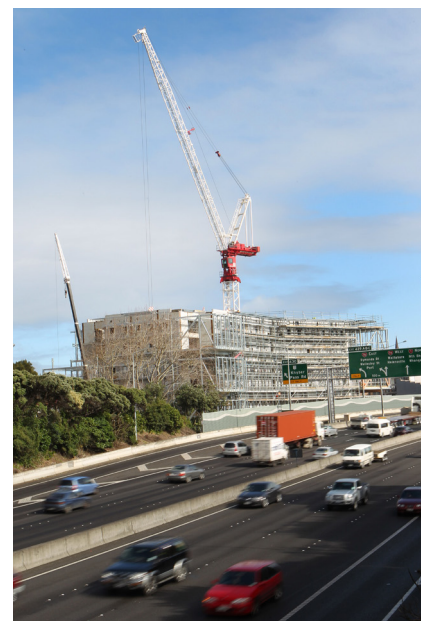
**Jonathan White**  
G.A.N.Z Chairman

## Mount Eden Prison

Over the last year work has steadily been progressing on the construction of the new accommodation buildings at the Mt Eden Prison. Situated within the existing 120 year old Mt Eden Prison site, the new prison will not only provide facilities that meet modern standards, but will also include some future-proofing for up to 570 more prisoners to be accommodated on the site if required in the future.

The existing Mt Eden Prison and Auckland Central Remand Prison need to stay open throughout the construction period. One of this project's challenges will be working on a secure and operating prison site.

The new accommodation buildings, will feature an innovative twin-skin cladding system around accommodation buildings will provide the level of security and privacy required while at the same time giving the appearance of commercial buildings. Glass and louvered exterior cladding will wrap around an inner, secure, concrete exterior and ensure visual screening of inmates in cells from neighbouring properties.



Perry Metal Protection has provided galvanizing services to George Grant Engineering who are undertaking the steelwork component for main contractor Fletcher Construction. Over the last 8 months 450 tonnes of structural steelwork and 200 tonnes of associated metalwork has been galvanized under an accelerated programme. This has required close communication between Perry's and George Grant Engineering to ensure the programme was adhered to.

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## SH20-1 Manukau Extension Project

The new 4.5km SH20-1 Manukau Extension is nearing completion with the South bound lane opened in August. The new motorway link is made up of two lanes in each direction. Within this section of motorway, two grade separated interchanges at Cavendish Drive and Lambie Drive are included - as well as motorway-to-motorway connections to SH20 and SH1 at Manukau City. The work includes five motorway crossings over local roads and streams, as well as the main North Island rail line.

Hot dip galvanizing has been extensively used to protect steel from corrosion. Examples include the major sign gantry structures, guard rail systems, lighting poles, bridge fencing and barriers.

Various galvanizers have been involved in providing hot dip galvanizing services to the many fabricators that have been involved in constructing the new motorway structures. This project demonstrates the numerous applications where hot dip galvanizing can be best choice to provide long term corrosion protection that will stand the test of time.



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## Te Rewa Rewa Bridge

Webforge (NZ) Ltd was recently contracted to apply the Hot Dip Galvanized coating on the handrail of the new 69m Te Rewa Rewa Bridge over the Wiawhakaiho River in New Plymouth. The bridge forms part of the coastal walkway that extends from the Port of Taranaki through to Bell Block.

The stunning design which looks to replicate the ribs and spine of a whale are the masterpiece of Novare Design, with the head contractor Whitaker Civil Engineering tasked with overseeing the build.

Webforge was approached by Fitzroy Engineering Ltd at an early stage to look at the Hot Dip Galvanized coating of the handrail sections along the sides and abutments of the bridge. Care was taken to ensure the design of the handrail incorporated correct venting and drainage holes to allow the free flow of zinc throughout the product.

Given its proximity to the sea it was vital to have every surface coated to a high standard. Size of the individual handrails was also looked at so that items could be easily transported and galvanized as single dip units.

The coating specification included all nominated steelwork to be coated with the system designated in AS/NZS 2312 as HDG 900 (125 $\mu$ ). Product was then to be lightly sweep blasted to matt finish, ensuring all surface were free from dichromate passivation. The handrail was then painted with 1 coat of Epoxy to a DFT of 75 microns and matte white in colour. Then 1 coat of Polyurethane to a DFT of 50 microns and semi gloss white in colour.

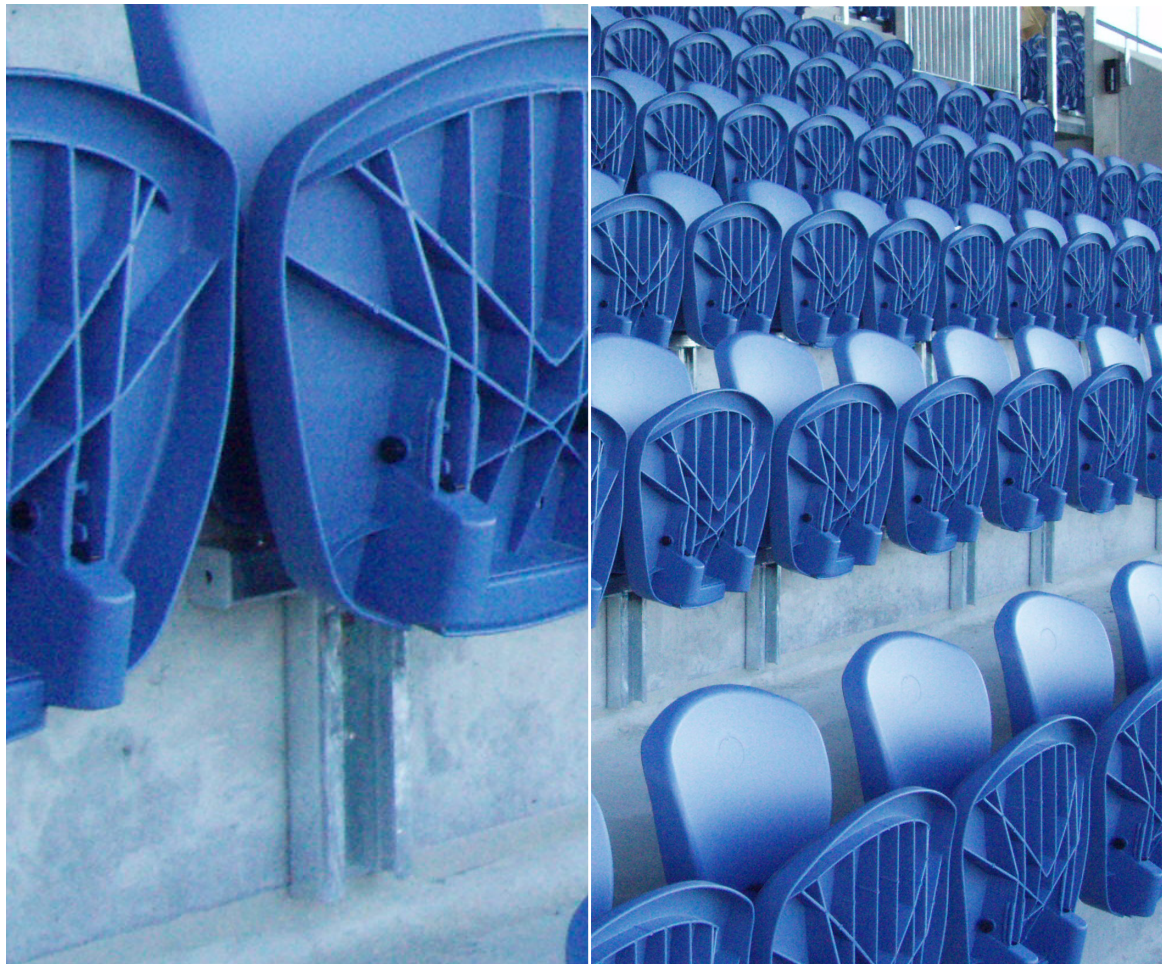
Although the project was not technically difficult or large it is satisfying to see the complex design finished to a high standard. Webforge (NZ) Ltd is proud of their involvement and hope the bridge will be enjoyed by the local community for years to come.



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## Forsyth Barr Stadium Seat Brackets

In August Perry Metal Protection Wellington started galvanizing the first of 6,300 seat brackets that will be used for the seating at the new Forsyth Barr Stadium in Dunedin. Perry's are working closely with Effuzi the seat manufacturer to ensure they will be all installed by February next year in time for the stadium's opening. The brackets are completed in batches with Perry's picking up from Effuzi and then storing them in their yard before being despatched to Dunedin.



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## Scenic Cycleway



The 365m Mt Roskill SH20 cycleway providing the missing link in the 12km cycling route between Pikes Point, Onehunga and Richardson Road, New Windsor.

Taking in the volcanic cone of Puketapapa-Mt Roskill in Winstone Park, it features stone walls and picnic and open-space areas, as well as fencing designed in consultation with Ngati Whatua representatives. There is also a carved Maori waharoa (gateway) at the park's cycleway entrance, as a reminder of the mountain's history as a pa site.

Construction of the cycleway project took six months and was jointly funded by Auckland City Council, the Mt Roskill Community Board and the New Zealand Transport Agency.

Galvanizing of the fence by CSP Coatings Ltd.

**Galvanizing makes sense and saves dollars**

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