

## **Project:** Spavin and Riddell Residential Estates

### **Location:** Sunbury

#### **Project Specifications:**

This project involved the installation of retaining walls at the new Spavin and Riddell residential estate in Sunbury. Custom TetraWal steel posts were used to create the boundary lines on this estate in Melbourne's northwest fringe.

The project comprises approximately 750 metres of timber retaining walls ranging from 200mm to 2.4 metres in height, supported by steel soldiers and concrete footings.

#### **Design Requirements:**

The project held one key installation challenge; ensuring the retaining wall structures were not located on the existing land owner's property. This was driven by the project construction occurring in the very early stages of the sub-division works.

This requirement was addressed in two parts using custom design elements:

1. Sections of the retaining walls were constructed off site.
2. Specially designed offset fencing brackets were welded to the back walls, which enabled the retaining walls to be physically located inside the new property title.

As treated pine sleepers were used in the construction of these retaining walls, the design life required was at least 25 years. To complement that longevity, hot dip galvanizing was selected as the ideal coating system for the steel soldiers, to ensure the retaining walls resist corrosion.

Several types of steel soldiers were used, employing sections of 150UC23, 150UC30 and 250UC30 grades of steel.



### **Construction Considerations:**

The project required a range of offsets for the site boundaries. All steel soldiers were fabricated and galvanized off site by Geelong Galvanizing.

There were also two different types of fence cleats welded to the steel soldiers prior to galvanizing; one to the top of soldiers and the other to the rear for title offset. Geelong Galvanizing's experience and in-house capabilities provided a one stop solution. As the cutting and fabrication workshop operates alongside the blast & paint facility and the galvanising plant.

All steel sections were assembled and welded prior to galvanizing to ensure 100% protection and to maximise the life of the product.

### **Off-Site Benefits:**

Off-site fabrication provided added benefits in relation to site safety as no welding or steel cutting was required onsite. Cost benefits were also achieved in selecting a galvanized steel finish as the product did not require additional packaging or transport needs to avoid surface damage.

All galvanizing was carried out to Australian Standard AS/NZS 4680 and fabrication was completed to a strict quality regime in the production factory.

