



CASE STUDY:

HALL QUARRY TERRAMESH WALL

**CANBERRA, ACT
OCTOBER 1995**

UPDATED APRIL 2019

Maccaferri ® Terramesh ®

Maccaferri Terramesh is a versatile, modular system for reinforced slope systems and mechanically stabilised earth walls that can be a more cost effective solution than the mass gravity Gabion wall because of the speed of installation and reduced rock fill requirements.

The Maccaferri Terramesh system comprises of a gabion type facing with integral woven mesh soil reinforcement panels that can be used to construct structures with either a stepped front face or vertical facing.

They are pre-assembled units of double twisted wire mesh.

They can be used individually or combined with geogrid reinforcement for the stabilisation of soil slopes in a wide range of applications including slip repair work and steep slope construction.

10 m High Mechanically Stabilised Earth (MSE) walls were required to retain the fill on either side of the primary crusher at the Hall Quarry in The Australian Capital Territory. A wall system that was quick to install, made use of materials readily available in the quarry and was able to conform to an extremely irregular foundation condition was required.

The wall would also need to withstand the heavy loads imposed by the dump trucks and the vibrations induced by the crusher and blasting within the open pit. It was the opinion of the client that the only wall system that would comply with this strict mandate was the Maccaferri Terramesh® system.

The Maccaferri Terramesh system consists of a Gabion type facing with integral woven mesh reinforcement that extends back into the fill material thereby increasing the shear properties of the backfill to create a “reinforced block”. The woven mesh is Galmac coated (95% Zinc 5% Aluminium Alloy) with an additional 0.5mm radial thickness polymer coating to address any long term durability concerns.

A site inspection was conducted at the quarry in May 2005 (10 years after completion), to carefully scrutinize the long term performance of the structure. There was no visible damage to the polymer coating, the mesh was in excellent condition and the Gabion facing showed no signs of fatigue or overstress. A spokesman for the quarry indicated that they were extremely happy with the overall performance of the structure.

> Hall Quarry Terramesh Wall



During construction in 1995.



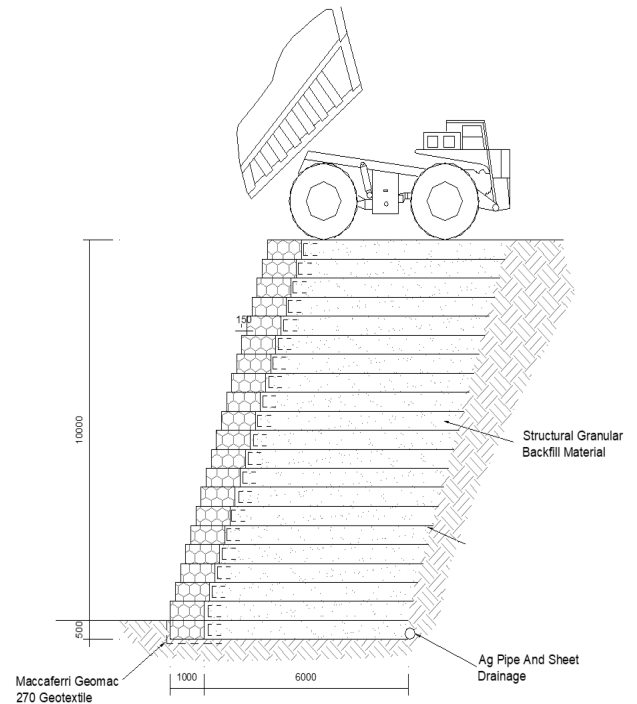
10 years after completion in 2005.



24 years after completion in April 2019.

Another site visit was conducted in March 2019 and once again, the client reiterated how happy they were with the performance of the Terramesh walls.

Hundreds of Terramesh® walls have been constructed to date in Australia up to 22m in height with vertical walls in excess of 32m high constructed overseas using this innovative solution.



Project section.

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