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Ref 89055
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GRAM ENGINEERING
16-22 CULLEN PLACE
SMITHFIELD NSW 2164

**GRAM ENGINEERING
GRAMLINE PLINTH RETAINING WALLS**

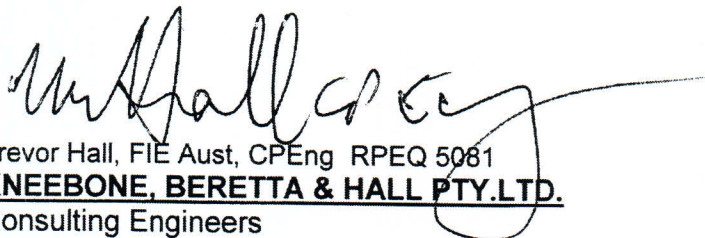
This is to certify that we have checked the design of the 155 wide x 50mm deep 'Gramline Plinth' panels made from 0.80mm steel for use as retaining walls.

Spanning 2.4m a 155mm wide panel was tested to support a load of 400 kgs. Without surcharge (from vehicle wheel load on the retaining wall backfill) a maximum load of 250 kg is expected from ground pressure on each 155mm wide plinth section.

Based on load tests we consider that retaining walls up to 595mm high can be constructed using the above Gramline plinth panels and will be structurally adequate to hold backfilling as noted below.

Panel lengths between posts – 2365mm
Walls 2 plinths high up to 5 plinths high (265 – 595mm) to have SHS 50 x 50 x 1.5mm posts in between standard fence channel posts.

Install in accordance with Gram Engineering instructions.
Backfilling material against walls should be of gravel or crushed recycled concrete.



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