



**BISON PRECAST**

a Forterra brand

# TECHNICAL GUIDANCE NOTE

Retaining Walls - Foundation - 20 November 2017

Precast retaining walls can be designed as either gravity walls or composite walls. A gravity wall has sufficient self weight to be able to resist the sliding and overturning forces generated by the retained material / surcharge on its own. A composite wall is not designed to resist the sliding and overturning forces and as such needs to be anchored to a cast in-situ reinforced concrete base slab.

The benefit of a composite wall is that the section sizes are smaller resulting in a lighter unit that can be easily transported and installed without the need for large plant equipment. The benefits of this approach are more apparent as the depth of retained material increases.

The standard range of Forterra's retaining walls are the composite type which need to be anchored to a cast in-situ reinforced concrete base slab which is to be designed by a suitably qualified geotechnical engineer, at no cost to Forterra, to suit the site conditions. A full set of calculations showing the relevant design output for the retaining wall is available upon request.

On projects where gravity retaining walls are required Forterra work under a scheme designer who advises the size of the base that is required to suit the site conditions and approves the overall design. Normally this is an engineering consultancy that employs geotechnical engineers.

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The components you need for a more successful project.

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