

## Church Street, Rudgwick, West Sussex

### Our Services

- Desk Study
- Site Investigation
- Remediation Design
- Reinforced Earth Design
- Slope stability Assessment
- Construction Supervision
- Validation and Tank Removal



### Reinforced earth development platform construction on a sloping former garage site

A developer's vision of transforming a low-grade site into a prestigious apartment complex in a prime Sussex village location was turned into reality by **CGL's** slope engineering and geoenvironmental capabilities.

The site had been historically used as a garage and filling station, one third of which was a level area and two thirds a rubbish-strewn slope. In its original configuration the site had limited redevelopment potential and contamination legacies from buried fuel tanks. The variation in ground level restricted the developable area and hence the viability of the development.

The overall site area however was sufficient to support a profitable development, and the key to the success of the development was to create a level construction platform from which building operations could take place.

In conjunction with the client and the structural engineer, **CGL** developed a scheme of reinforced earth walls at the perimeter of the site allowing,

the sloping area to be raised to form a level platform. The wall was by inclusion of layers of geogrid within a soil mass, with the design considering both tensile strength and overall stability considerations. Site-won material was used within the reinforced earth system, with imported granular fill used to make up quantities beneath areas requiring piling. Lime stabilisation was adopted to improve site-won materials within the development platform core.

**CGL's** involvement included design and construction validation of the reinforced development platform, with the scheme meeting the approval of the local authority.

In addition to the geotechnical elements of the development, **CGL's** engineers developed a remediation methodology to deal with the contamination from buried fuel tanks, which was satisfactorily removed from site, and were able to rationalise waste disposal costs by careful testing and classification of excavated materials.  
Client: Bespoke Property Group