

Ageas Bowl Cricket Ground, Hampshire – Swanworth Rock Armour for landscaping, Gabion stone

The renovation scheme at the Ageas Bowl (formerly 'the Rose Bowl') Cricket and hotel grounds was a large landscaping and gabion architecture project entirely using Swanworth Quarry stone. Working for



various contractors, including Keltbray and Maccaferri, 850 tonnes of ½ to 2t Rock, 550 tonnes of gabion stone and another 145 tonnes of auxiliary stone gradings were supplied by Suttle Stone Quarries to achieve spectacular views over the landscape and stadium walls. The work was



completed in 2014 and has greatly improved a National institution.

‘Bituchem’, Cinderford, Gloucestershire – Swanworth 6mm and 10mm Limestone Chippings

‘Bituchem’ are a company based in Cinderford, Gloucestershire who specialise in the manufacture of bonded colour surfaces for landscaping.

We supply 6mm and 10mm chippings to them as the colour and quality of the Swanworth stone suits many of their applications. The loss of Swanworth as a source would financially effect their business as the next available source of material would be Derbyshire.

The picture inset is of a finished surface at Montpelier Park, central Cheltenham



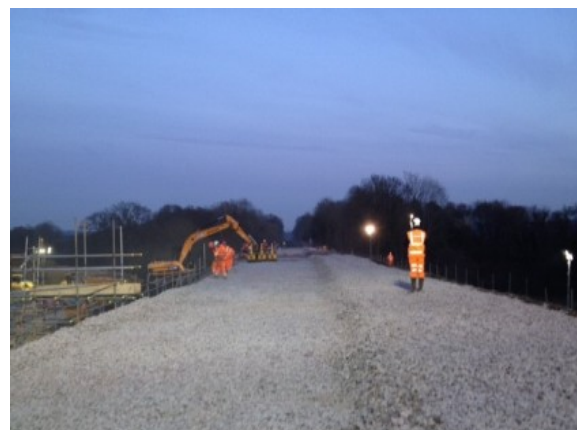
Appendix 3 – Suttle Projects Case Studies

Network Rail/Osborne Botley landslip remedial works

After torrential prolonged periods of rain during the winter of 2014, the embankment at Botley gave way leaving it unpassable for trains. Suttle Projects responded to work for Osbornes and Network rail. The emergency works went on for 4 weeks, whilst the remediation works went on for a further 5 months. Suttle Projects' parts of the contract was worth £3 million and included:



- Installation of 1 mile of access road.
- Excavation and muck away of 35,000t saturated material provided by Suttle Stone Quarries.
- Installation of over 600 sheet piles in various lengths with excavator with attached Movax unit - the piles have been driven down to prevent any further movement of the earth.
- Backfill in excess of 40,000 tonnes of crushed aggregate levelled in 150mm layers by the 34t machine onsite and compacted by a road roller.
- Installation of over 1000m of drainage to enhance the railway.



Network Rail/Costain Dover seawall stabilisation works

The rail line between Dover and Folkestone was closed following extensive storm damage to the sea wall at Shakespeare beach over the Christmas 2015 period. Suttle Projects responded to the emergency contract, fulfilling rock armour delivery



from Swanworth quarry over the Christmas holiday. The work continued into 2016 with the aim being to develop a long-term engineering solution to secure the future of this important rail link. Suttle Projects were contracted to supply & install the following scope of work:

- Installation of 294Nr sheet piled retaining wall on the beach with 21t excavator equipped with Movax vibratory unit.
- Supply and delivery of 4000 tonne rock armour provided by Suttle Stone Quarries from Swanworth Quarry. (This could not be provided in time by any other supplier).
- Installation of 4000t rock armour with excavator equipped with rock grab.



'Projects' portion of the contract has amounted to £550k so far; a permanent solution is still being considered by Network Rail in consultation with representatives from Suttle Projects and Costain.

Appendix 4 – Dover Seawall Letter from Network Rail



20th January 2016

RECEIVED
22 JAN 2016

FAO Joe Paine
Suttle Stone Quarries
Swanworth Quarry
Worth Matrovers
Swanage
BH19 3LE

Dear Joe

Re: Supply of Rock Armour to Dover Seawall Emergency Works

I write to record our thanks for the assistance lent in opening your Swanworth Quarry facility, during the Christmas and New Year shut down, to provide rock armour to the above mentioned emergency works. Access to this critical resource at the appropriate moment has helped in dealing with a difficult engineering problem. Please pass on our thanks to your staff involved in this effort.

Yours Sincerely,



Steve Kilby

South East Infrastructure Projects

Senior Programme Manager – Delivery / Change

Appendix 5 – Swanworth Restoration Update 2015

Dr Barbara Smith

barbarasmithmail@gmail.com

3 August 2015

SWANWORTH QUARRY RESTORATION UPDATE 2015

Most recently sown area developing well | Grazing regime to be implemented

Original Experimental Area

Originally sown in 1997, species rich grassland has been established on this area for 16 years. 80% of the species that were sown are still present including both greater (*Centaurea scabiosa*) and black knapweed (*Centaurea nigra*), field (*Knautia arvensis*) and small scabious (*Scabiosa columbaria*), cowslips (*Primula veris*) kidney vetch (*Anthyllis vulneraria*), restharrow (*Ononis repens*) and lady's bedstraw (*Galium verum*). The grasses include characteristic limestone grassland species such as quaking grass (*Briza media*), sweet vernal grass (*Anthoxanthum odoratum*), crested dog's-tail (*Cynosurus cristatus*) and sheep's fescue (*Festuca ovina*). This year both broomrape (*Orobanche* sp.) and pyramidal orchid (*Anacamptis pyramidalis*) were recorded.

In 2014 the grassland was cut and the hay removed. The beneficial impact of that management can be seen. The grasses have not lodged as much as in previous years. However, grazing is necessary to manage the site well.



'Recently' sown area

IN 2012 we sowed seed that had been collected from Hill Bottom and propagated and bulked-up at Emorsgate Seeds (Bath). Many species have local ecotypes and it was noted that several species exhibited local types that were particularly small and low growing. The seed represented a substantial investment in the site and it has been rather tense over the last three years as we waited to see how well the grassland would establish. We know from past experience that, as we use no topsoil on the site, the grassland establishes slowly but relatively weed free. Nevertheless it was a relief this year to see that the area sown in 2012 has developed into the beginnings of a good limestone grassland and 70% the area is now vegetated.

The newly sown area now supports a range of species including bird's-foot trefoil (*Lotus corniculatus*), kidney vetch (*Anthyllis vulneraria*), black medic (*Medicago lupulina*) lady's bedstraw (*Galium verum*), harebell (*Campanula rotundiflora*), pale flax (*Linum bienne*) and grasses such as sheep's fescue (*Festuca ovina*) and quaking grass (*Briza media*), all of which were sown.

Dr Barbara Smith

barbarasmithmail@gmail.com

3 August 2015



Cattle on their way

By the time you read this the cattle should be installed on the restored area at Swanworth quarry.

Cows will be brought in by a local farmer to graze the grassland. They will be managed using electric fence and they will be moved systematically across the site to ensure the effect is distributed evenly.

Although limestone grassland is commonly grazed by sheep, the site is rather overgrown and it will benefit from the less selective grazing of cattle. Cattle also tend to churn the ground with their hooves and this will open up micro-sites allowing the limestone species to spread. In the future sheep may be used to manage the site but this will be assessed on a year-by-year basis.

The area sown in 2004 is also in good condition, with a particularly good populations of pale flax (*Linum bienne*) and pignut (*Canopodium majus*), the latter of which is not found anywhere else on site.

The area that was covered with topsoil and allowed to regenerate naturally demonstrates the importance of sowing seeds and not adding nutrients. The naturally regenerated area is dominated by grasses, especially couch (*Elymus repens*), rye (*Lolium perenne*) and cock's foot (*Dactylis glomerata*), although these grasses occur elsewhere on site they do not dominate in the same way. While some species spread readily (e.g. kidney vetch, *Anthyllis vulneraria*) other species such as harebell (*Campanula rotundiflora*) and cowslip (*Primula veris*) are slow to spread and these species are not found on the regenerated area. Furthermore the additional nutrients in the topsoil is likely to have encouraged the weedy dominant grasses and these outcompeted the less competitive limestone flora.

Overall the site is developing well, key species are present and the local ecotypes have been conserved on site by sourcing seeds locally. The plan is that newly restored areas will be sown with seed collected on site, using hand collection or brush harvesting where possible. The site is now sufficiently well developed that the quarry operators will be able to avoid bringing in seed from beyond the quarry gate.

The original aim was to restore the site to a condition where it could be considered an extension of the existing limestone grassland at Hill Bottom (the adjacent valley). Although there are differences and Swanworth quarry is not yet as species rich, it can be seen that there is potential for this ambitious aim to be achieved.