

CASE STUDY

Riverside Quarter, Aberdeen
Barratt Homes, North Scotland



Principal Contractor	Barratt Homes, North Scotland
On-site	October 2016 – May 2017
Development Area	141,513m ²
Topsoil and 6F2 stockpile double handling	50,000m ³
Cut-to-Fill	160,000m ³
Works	<ul style="list-style-type: none"> • Topsoil and 6F2 stockpile double handling • Remediation • Stabilised Earthworks • Demolition of concrete slabs

PROJECT DESCRIPTION

The Riverside Quarter development is located on the banks of the River Don, on the site of the former Davidson’s paper mill where the mill building had been demolished, and the associated paper mill buildings were crushed into piles of 6F2 aggregate.

The aggregate was stored in piles across the site, and it had to be double-handled to allow the cut and fill and stabilisation operations to proceed. A significant cut and fill process was required to allow the construction of new four storey apartments and two storey housing.

The site has an industrial history and there were areas of asbestos and hydrocarbon contamination that required remediation. We used stabilisation techniques which allowed us to use these remediated soils in the bulk earthworks operations, and once stabilised we capped the fill areas using the clean 6F2 site-won aggregates.

Maximising the use of site-won soils, as well as removing the requirement to dispose of unsuitable excavated materials off, ensured the import of materials was minimised.

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KEY PROJECT CHALLENGES:

- The development is adjacent to the River Don and therefore we established a comprehensive Surface Water Management system prior to the earthworks operation commencing to ensure the protection of the river during the works. We created cut off ditches, carrier drains, bunds, silt fencing and a settlement pond
- A robust remediation strategy is required when working with asbestos and hydrocarbon contaminated soils. Our approach on this project combined staff training, additional PPE, decontamination areas, dust suppression as well as an on-site lab to monitor the air for any asbestos fibres that may have become airborne during the excavation, screening or soil stabilisation processes.
- Some of our largest plant machinery was deployed to break out concrete slabs and a 900mm water intake pipe along the riverside, which hadn't been completed during the initial demolition works. Our 30 tonne diggers with breakers and demolition sharers easily coped with the 900mm thick slab that had significant re-bar through it. Once the concrete was broken up by the excavator breaker, and most of the heavy re- bar removed by the demolition sharers, the material was crushed to produce 6F2 aggregate to be used on-site.

