

SWANAGE REVETMENT REPAIRS

Client: Swanage Town Council

Value: £15,000

Duration: 3 weeks

Project Detail

This project was to reconstruct a 10m length of the revetment at Swanage, Dorset. The existing revetment had become undermined and this had led to the collapse of the concrete slab. This caused a significant hazard to the public, who are able to use the revetment to launch and recover their vessels, so Suttle Projects were enlisted to undertake the remedial works, which included:

- 5 The existing damaged concrete revetment section was first sawcut back to the sound area of the structure and broken out.
- 5 The material was transported to Suttles' own concrete waste recycling facility to be crushed into a useable aggregate product.
- 5 Once cleared, the scoured area was filled with aggregate from Suttles' quarry and well-compacted to form a durable subbase for the concrete to be founded on.
- 5 The area of slab required was separated into three sections to allow for movement joints and to enable us to work with the tides and weather conditions. Suttles' in-house design team specified a suitable concrete mix for the extreme conditions the revetment is exposed to and implemented an improved toe-detail and schedule of reinforcement over the original structure to ensure that the repair had excellent longevity. Road forms were utilised to provide a fast and dimensionally accurate formwork that also eliminated the waste associated with traditional timber forms. A non-slip brushed finish was applied to the surface of the concrete and a new stair detail was also cast into the slab to allow safe access to the beach.
- 5 Whilst on site Suttles also performed small remedial repairs to the remainder of the revetment by conducting a coring survey and grouting any voids detected to underpin the revetment slab.

A key consideration on this project was the interface with the public as it is an extremely popular area of this seaside resort. Suttles worked closely with the client and other local stakeholders to ensure that public safety was maintained, and that minimal disruption was made to local businesses. This included segregating the works area and ensuring that concrete delivery lorries were within an enclosed boundary, whilst providing a 2m wide barriered footpath to redirect pedestrians safely around the works area in accordance with the COVID-19 guidelines in place at the time.

Another challenge was working with the tidal and weather conditions. Suttles analysed the weather and tidal conditions to best time the works, and a temporary bund was also formed from beach material to enhance protection of the new construction and allow the concrete to cure before being exposed to sea water.

The works were completed on schedule and to a high standard, allowing the revetment to be enjoyed for many years to come.



