



# BLUE ANCHOR COASTAL DEFENCE



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INDUSTRIES





## CASE STUDY – BLUE ANCHOR COASTAL DEFENCE

### AGGREGATE INDUSTRIES SUPPLIED 13,500 TONNES OF GRANITE ARMOURSTONE

#### THE PROJECT

Aggregate Industries supplied 13,500 tonnes of granite Armourstone from its Scottish super quarry, Glensanda, to help protect part of the Somerset coastline.

#### THE BRIEF

The £3.8m coastal defence project in Somerset is focused on safeguarding the vulnerable coastline from erosion, providing protection for the cliffs, walls, and the B3191 road.

Somerset Council took the lead in this initiative, with Kier Integrated Services serving as the main contractor.

Kier faced the challenge of finding suitable materials that could withstand the coastal environment and be easily deposited on the beach during high tide, with the flexibility to be moved up the beach during low tide. The project required 13,500 tonnes of such materials to effectively strengthen the coastline.

#### THE SOLUTION

To meet the brief, Aggregate Industries supplied and transported thousands of tonnes of Armourstone, also known as Rock Armour, from its Scottish super quarry, Glensanda, to Blue Anchor beach in Somerset, whilst facing the challenge of alleviating transportation costs and reducing emissions in the process.

The team therefore delivered the Armourstone via a specialised operation, and arranged for three sailings of the MV Hagland Saga, with each trip carrying 4,500 tonnes of granite and taking 21 days each to complete.

Once the granite reached the offshore anchorage, it was then transferred to Aggregate Industries' SeaRock1 barge, as a tug and barge combination to access the allocated landing area on the beach to complete the final stage of the shipment. The SeaRock1 barge offered a flexible and efficient means of transporting the Armourstone from the anchorage position to the project site, and allowed for successful delivery of 13,500 tonnes of 3-6 tonne granite boulders to Blue Anchor beach.

This Armourstone was crucial for protecting the coastline, mitigating erosion and delivering the project's completion within the designated timeline ensuring that the cliffs, walls, and the B3191 road were safeguarded against further deterioration.

Stephen Dryden, Aggregate division Regional Director for North, Scotland and Overseas for Aggregate Industries, said: "This was a fantastic project to be involved in and we have had to work very closely and collaboratively with Somerset Council and the principal contractor.

"Logistically, it was no mean feat to transport 13,500 tonnes of granite from Western Scotland to Somerset but it really demonstrates our capabilities.

"We have built up a real reputation for being able to deliver such schemes with numerous coastal defence projects now to our name.

"Transporting by sea in this way also eradicated the need for more than 700 vehicle journeys."

Councillor Sarah Dyke, Lead Member for Environment and Climate Change at Somerset Council, said: "I am delighted to see these important works finally take place, benefiting the communities in West Somerset. The scheme will provide a more permanent defence against coastal erosion."