Interim Coastal Defences Project – Hall Road, Crosby

Project Background

Sefton's coastline is a mixture of manmade (seawall, rock armour and rubble) and natural (sand dunes, saltmarsh, beaches and mudflats) features that are affected by waves, tides and storms. The impacts vary along the coast depending on the physical nature of the site.

The northern Crosby coastline has become vulnerable to erosion because of sediment (beach material) loss in the area. This means large waves reach the top of the beach more often and impact the coastline. As a result, the area has seen significant damage to the sea wall and persistent landward retreat of the rubble coastline fig 1. The rubble frontage (north of Crosby Beach Car Park) loses land at a rate of 0.5m/year with significant storm events have removed up to 13 m land at once. The seawall is often damaged requiring more frequent maintenance.

Figure 1: Images to show the loss of land between 2012 and 2023.

Figure 2: Map of proposed main scheme and interim works at Crosby.

Consequently, Sefton Council's Flood and Coastal Erosion Risk Management (FCERM) team are developing a scheme to replace a total of 1800m of coastal defence to the north and south of the Crosby Beach Car Park (Fig 2). Rock armour will replace 900m of rubble north of the car park and a 900 m length of seawall will be renewed south of the car park (subject to funding).

However, whilst funding for the larger coastal defence project is sourced, a higher risk section of the Crosby coast needs immediate intervention to protect critical coastal assets.

Figure 3: Proximity of coastal path to eroded cliff edge.

The site north of Crosby Beach Car Park has eroded to less than 2m from the King Charles III Coastal Path and 18m from a critical main sewer (United Utilities) (Fig.4) which serves approximately 12,000 properties. If left unprotected the sewer could be impacted in the next 5-10 years. The are no properties at risk of erosion at this location.

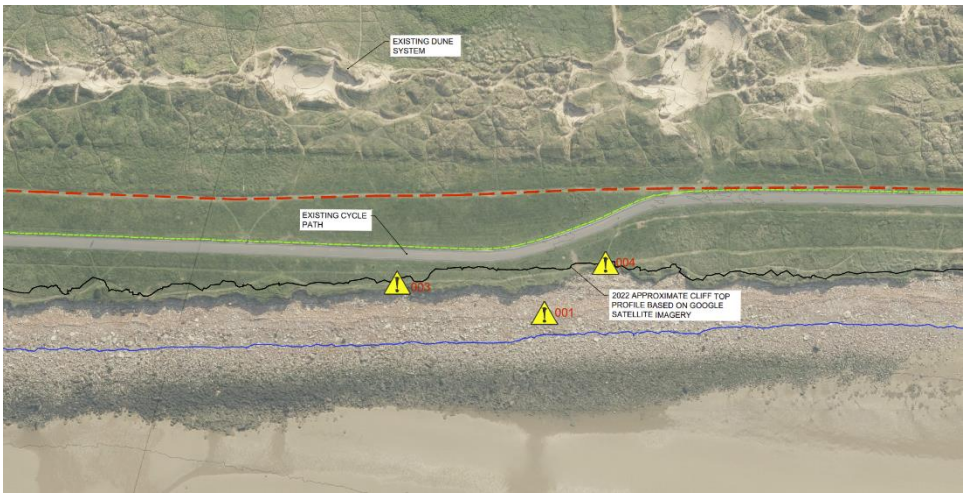

Figure 4: Map showing the location of the path, sewer pipe, and edge of the coast.

How will we protect the coast?

The project will place a protective layer of tough material over the existing rubble and place large bounders on top of this. This is known as rock armour. This will prevent the waves moving the rubble around and washing away the coastline. This will be about 120m long (fig 5&6).

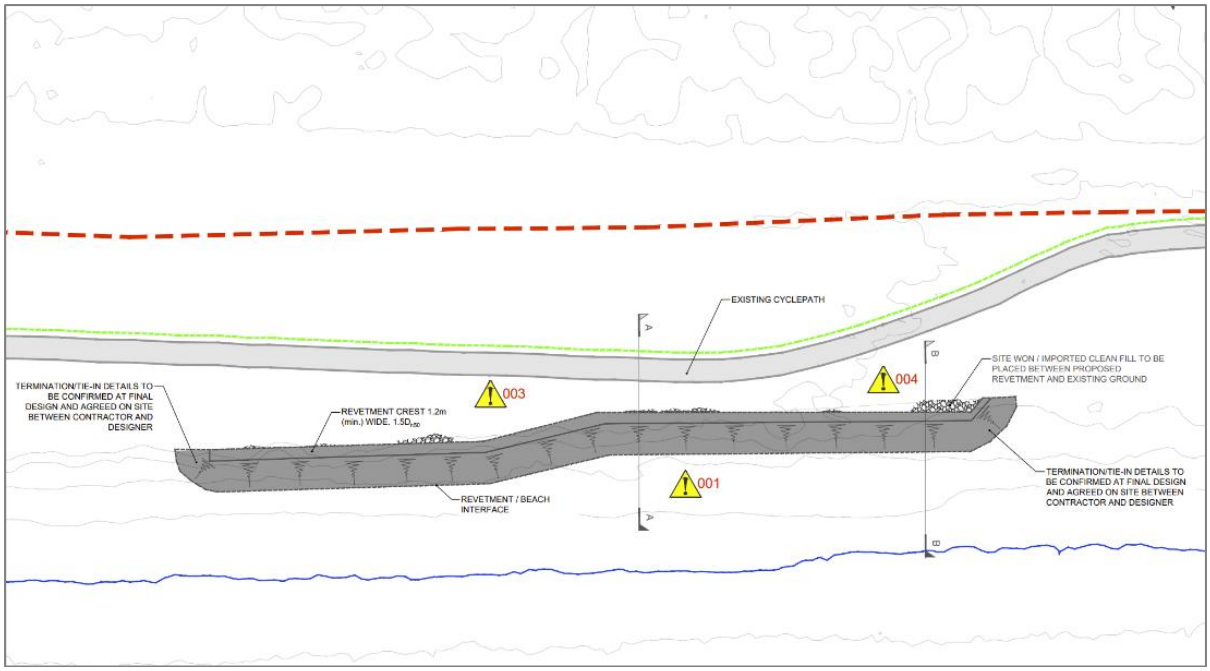

Figure 5: Technical drawing to show the location of the rock armour to protect the coastline.

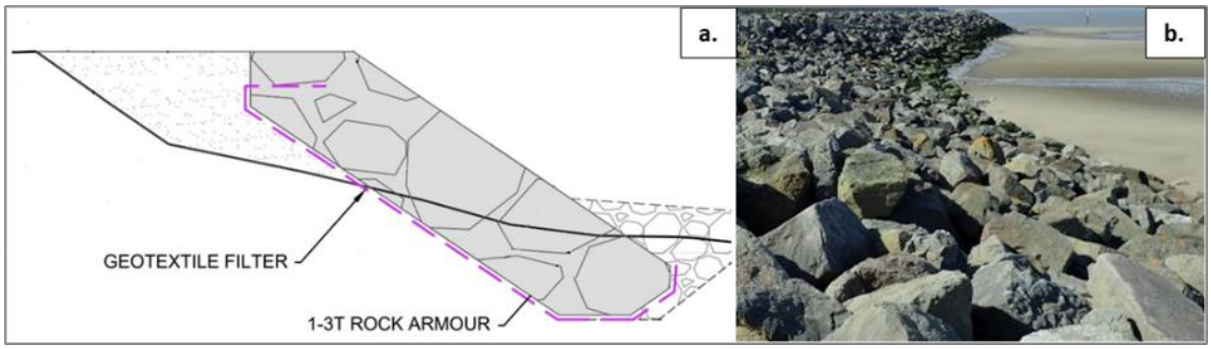

Figure 6a-b: a) Cross-section of proposed rock armour slope. b) Example of rock armour.

It is hoped the work will commence this year subject to planning permission and consent being issued due to it being a highly designated environment. If, however, a large storm occurs, and significant erosion takes place the Council will undertake the work under its emergency powers.