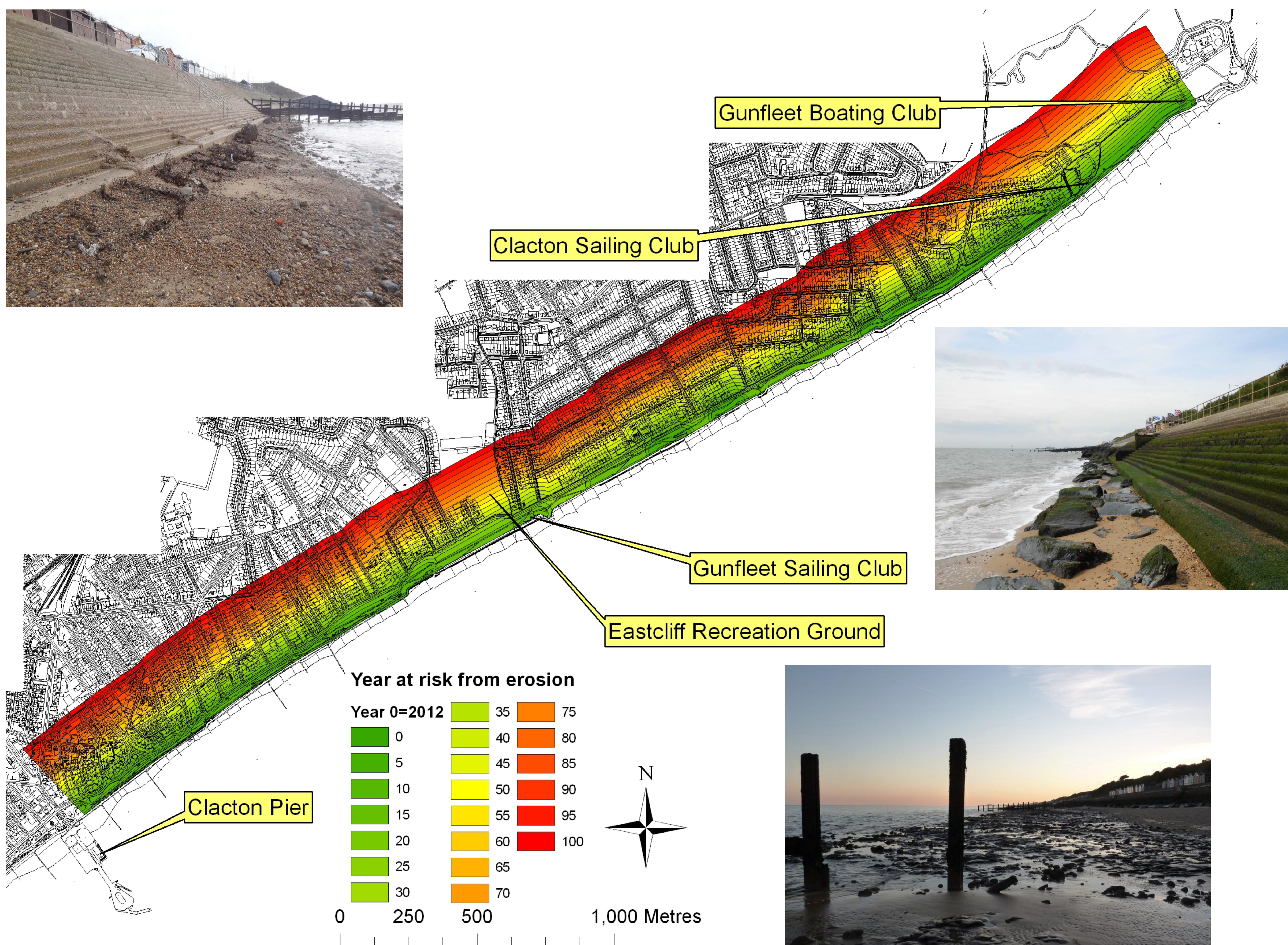


# Clacton and Holland-on-Sea Sea Defences

## MAJOR £36 MILLION SEA DEFENCE PROJECT GETS THE FINAL GO AHEAD

The project – the biggest ever for the District and covering 5kms from Clacton Pier to Holland Haven – was signed off by the Environment Agency (EA) on 10th September 2013.

The aim of the scheme is **to combat the continued long term loss of sediment causing lowering of beach levels and risk of erosion to the frontage**. The scheme will also focus on reinstating the area as a tourist destination to support regeneration.



### Risk of Erosion

The figure above presents the risk of erosion during the next **100 years**.

The main risk of erosion to the frontage is from approaching **waves**, particularly storm waves.

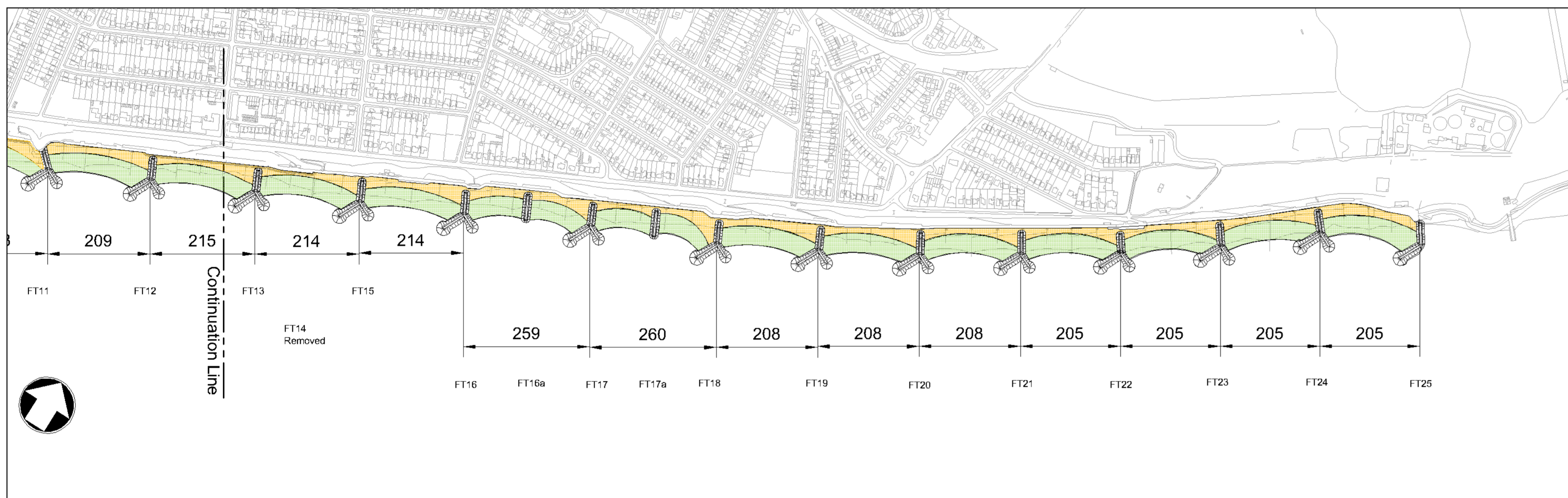
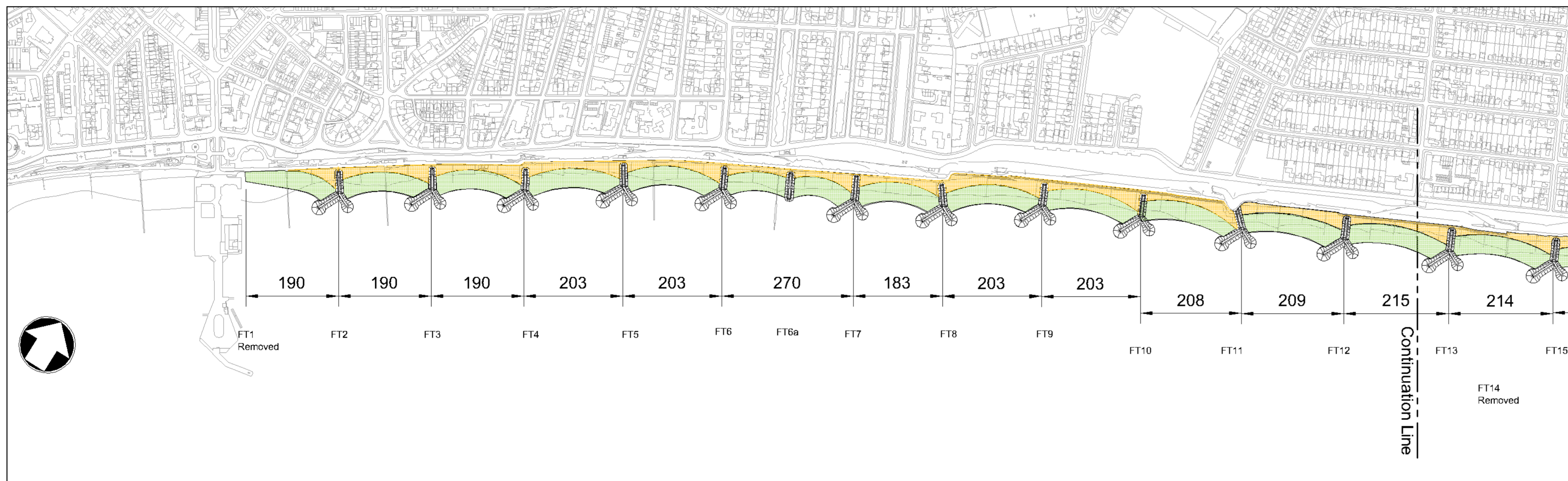
The sea defence scheme will provide protection to **3019 residential and commercial** properties that are at risk of erosion in the next 100 years.

Other benefits include the **increase of tourism incomes** and the **protection of key infrastructure** (coastal road, communication tower and a major Anglian Water tunnel sewer).

# Clacton and Holland-on-Sea Sea Defences

## Preliminary Scheme Layout (subject to minor on-going design alterations)

### Fishtail rock groynes and sand / shingle mix beach recharge



#### Fishtail rock groynes:

- 23 fishtail groynes
- 90 metres long
- Between 185 and 270 metres apart

#### Intermediate rock groynes:

- 3 straight groynes
- 50 metres long

#### New Beach:

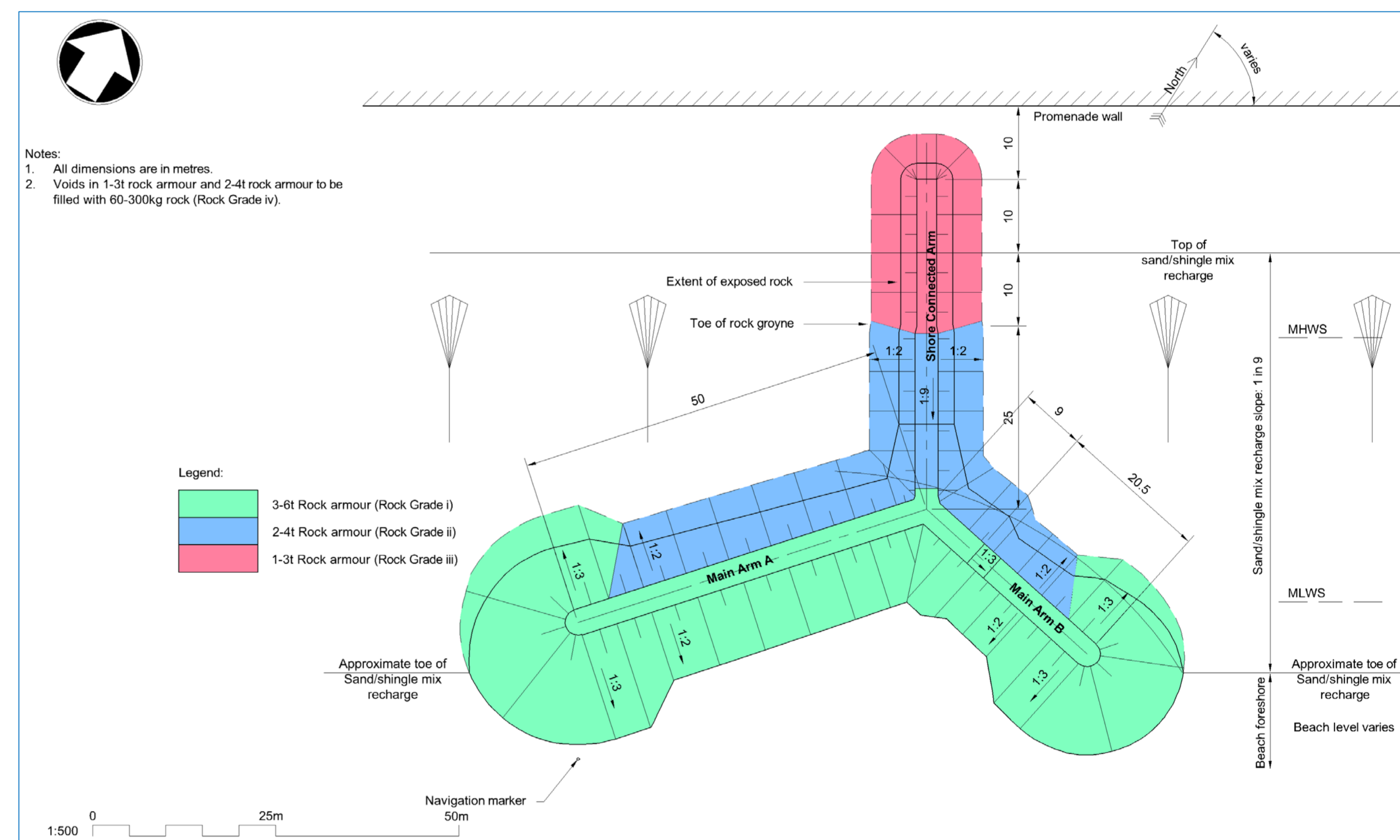
- Sand / Shingle mix along whole frontage
- **New beach to be 1m below existing promenade level**

#### Fishtail rock groynes

Fishtail rock groynes are needed to **hold the beach material and limit movement** of the material along the shore by wave action and tidal currents. These groynes narrow the gap for offshore transport and increase wave diffraction at the ends, potentially increasing deposition. The fishtail rock groynes have been placed to fit with some of the existing features (e.g. locations of the prominent points in the promenade and the outfalls and access ramps).

#### Intermediate rock groynes

Intermediate rock groynes are required where the spacing of the fishtails is larger than technically feasible.



Fishtail rock groynes at Jaywick



Recently Recharged Beach at Felixstowe – similar sourced material to the Clacton and Holland-on-Sea frontage

#### Beach Recharge

The **low levels** of beaches along the frontage is a key issue. There is **little sediment supply** from erosion of cliffs which are now all protected by coastal defences. Therefore beach recharge is needed to input more sediment into the system.

The recharge material for the whole frontage is proposed to be a **sand / shingle mix**. This material will be similar to the present material and thus avoid changing the environment as much as possible.

Although additional recharge could be required in the future, it has the advantage of **improving the amenity** of the frontage as well as providing **defence against erosion** of the sea wall/promenade.