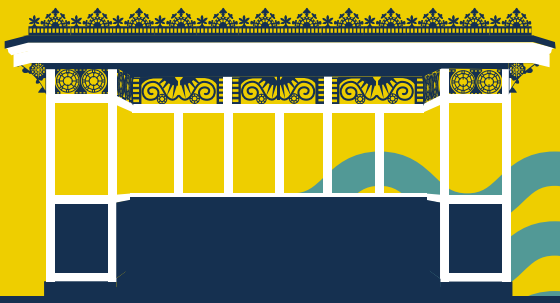
Portsmouth CITY COUNCIL

# southsea
## COASTAL SCHEME



www.southseacoastalscheme.org.uk

# INTRODUCTION

**The multi-award-winning Southsea Coastal Scheme is the UK's largest local authority-led coastal defences project, worth more than £180M. The Portsmouth City Council project will stretch for 4.5km from Old Portsmouth to Eastney and help to reduce the risk of flooding to more than 10,000 homes and 700 businesses.**

This scheme is a vital infrastructure project that looks to improve failing sea defence structures and protect the communities of Portsmouth for the next 100 years.

This project looks to regenerate this coastline and provide a world class seafront, safer from coastal flooding for future generations.

**Frontage 1 - Long Curtain Moat**
September 2020 - February 2023

**Frontage 2 - Clarence Pier**
2027 - 2028

**Frontage 3 - Southsea Common**
2024 - 2026

**Frontage 4 - Southsea Castle**
2022 - 2024

**Frontage 5 - Pyramids to Speakers' Corner**
2023-24

**Frontage 6 - Speakers' Corner to Eastney (St. George's Road)**
2026 - 2028

The scheme is broken down into six separate frontages. This reflects the changing nature of the seafront and packages construction delivery into manageable sections.

Construction of one frontage is currently underway. This is Frontage 3 (Southsea Common) which began on 21 October 2024 with a scheduled completion date of summer 2026.

The first frontage of the scheme at historic Long Curtain Moat opened in February 2023 and is very popular with the public who are enjoying the way that historic finds and original-look materials have been seamlessly integrated with the sea defences.

In May 2024 the second frontage of the scheme around Southsea Castle opened. This popular area features a greatly enhanced promenade that has been dubbed the 'Theatre of the Sea' due to its new split-level terraced seating and amazing views across the Solent.

Frontage 5 (Pyramids to Speakers' Corner) opened in December 2024.

Frontage 6 of the scheme (Speakers' Corner to Eastney) will begin in 2026, with an expected completion date of 2027. The final phase, Frontage 2, is scheduled for 2027, with the entire scheme due for completion in early 2028.

The below map shows the area of Southsea which is at risk from a major flood event. The existing defences are coming to the end of their operational life and no longer offer adequate protection. As such, there have been several structural failures along the frontage. Future climate change is expected to increase the intensity and frequency of major storms and new defences are required to protect the city.

Overtopping at Saluting Platform during Frontage 1 construction

*"The Southsea Coastal Scheme is crucial because, without raising and strengthening the existing defences, we could well see a future Portsmouth reverting to being a morass in the wake of climate change and other factors."*
Former Lord Mayor of Portsmouth, **Cllr Hugh Mason**

Overtopping at Clarence Pier during Frontage 1 construction

A bird's eye view of Frontage 1. *Credit Robert Mills Photography*

## FRONTAGE 1

# LONG CURTAIN MOAT

**Frontage 1 was officially opened on 17 March 2023 by the (then) Lord Mayor of Portsmouth, Cllr Hugh Mason. The area had a 'soft opening' in February, in time for the school holidays.**

This complex frontage includes the historic Spur Redoubt and Kings Bastion.

Construction of the 345m long frontage began in September 2020. The frontage runs from the caponier at Saluting Platform to Clarence Pier and is the westernmost frontage of the scheme.

The unique frontage includes Long Curtain Moat, a historic castle battlement that protected Old Portsmouth. It is of both local and national importance. The engineering solution included a unique twin wall system that protected Southsea Castle and recreated the previous feel of the area.

Careful consideration was given to the design which simplified the promenade, making it wider, increasing routes and providing space to reflect on the historic elements on display.

The coastal defence is provided by steel sheet piles, rock revetment and concrete walls. The frontage is the first project in the UK to include concrete tidepools to improve biodiversity.

*"During my time as Lord Mayor, this is truly the most visionary and important opening I have conducted due to the difference these defences will make to our city's future."* Former Lord Mayor of Portsmouth,
**Cllr Hugh Mason**

*"The development provides great opportunities for future investment, keeping the seafront alive and active in a recreational but also a commercial sense."* Portsmouth City Council Leader, **Cllr Steve Pitt**

# BEFORE

# AFTER

# FRONTAGE 4

# SOUTHSEA CASTLE

**Frontage 4 of the Southsea Coastal Scheme is a spectacular section of seafront promenade in the area around Southsea Castle featuring new sea defences and vastly improved recreational spaces.**

This 770m long section started construction in January 2022. As this coastline is more exposed than Frontage 1, a large-scale rock revetment provides the protection. These heavy-duty rocks weigh around 4T each and absorb the wave energy and dissipate waves.

The new defences here not only replaced the aging blockwork revetment but improved public realm. The new raised promenade features lighting, play areas and two unique swing benches. Special lighting enhances the Castle area.

The jewel in the crown of this frontage is the new curved seating around the castle. The split-level promenade includes tiered wooden seating with stunning views of the Solent. It truly is a 'Theatre of the Sea.'

*"The design of the area known as the 'theatre of the sea' is a tremendous improvement to the old pinch-point promenade around Southsea Castle and offers far greater accessibility to the area."* Local Cabinet Member, **Councillor Hugh Mason**

*"The terraced design is ideal for showcasing the castle in its historic setting and is sure to become a real social hub for residents and visitors to sit and enjoy stunning views across the Solent."* Project Director, **Guy Mason**.

Highlights include:

- 145 000 tonnes of rock imported and placed to make up the new sea defences.
- A 96m rock groyne constructed to reduce beach erosion.
- Split-level promenade known as the 'Theatre of the Sea'.
- 45 ECOncrete pools and 55 rock munched pools.
- Historic elements incorporated into the design with interpretation signage.
- Enhanced lighting and seating, including fully accessible seating.
- Refurbishment of the bandstand in Bandstand Field.
- A boulder garden for children to enjoy.
- Wildflower gardens and bee posts.

# BEFORE

# AFTER

## FRONTAGE 5

# PYRAMIDS TO SPEAKERS' CORNER

**Frontage 5 of the Southsea Coastal Scheme between the Pyramids and Speakers' Corner opened on 19 December 2024.**

Frontage 5 marks the move from hard defences to more natural structures, as the coast is more protected from wave attack. The frontage has a new beach held in place by a large rock groyne. The new level promenade is over half a metre higher and has steps and ramps along its length to improve beach access. The scheme has refurbished three historic shelters, making them more prevalent and accessible. The Grade II listed light columns have been delicately refurbished, and new feature lighting and seating complete the promenade.

Highlights include:

- 24,000m3 of shingle added to recharge the beach.
- Construction of a new shelter and outdoor public art area called The Windbreaks.
- Grade II listed shelters and lamp columns restored before being reinstalled in original locations.
- A new play area at Speakers' Corner featuring climbing frames to inspire adventure and rubber flooring for safer play.
- Wildflowers, trees and green areas around The Pyramids and the Rock Garden that will boost biodiversity and improve soil health, as well as providing natural flood management.
- Enhanced seating, including fully accessible seating.
- More lighting, including a newly lit area from the Pyramids to the Rock Garden to make it safer and more welcoming.

Enhancements along the promenade at Frontage 5

Artist's impression of the area known as Serpentine Square

## FRONTAGE 3

# SOUTHSEA COMMON

**Frontage 3 is more than 800m long and sits between Clarence Pier and Blue Reef Aquarium. This frontage is currently under construction and is due to open in summer 2026.**

The frontage design incorporates the same rock armour seen in Frontage 4 and is complemented by an increased beach, both designed to withstand wave attack. The promenade and road will be raised, and an earth slope built along Southsea Common. The project maintains the promenade width and increases beach access with new steps and ramps. All the monuments have carefully been dismantled and are being lovingly restored as part of the works. The highway will now be one-way, with additional crossing points and a cycle lane infrastructure.

*The coastal team worked hard to ensure that access around the area was as smooth as possible and, in particular, putting measures in place at the Naval War Memorial."* Council Leader **Cllr Steve Pitt**

Highlights include:

- A one-way road system (westbound) with a single carriageway and a reduction in speed limit from 30mph to 20mph.
- A 3m wide two-way cycle lane running alongside the promenade, segregated from carparking by a 2m buffer strip.
- An 8m wide promenade in most areas.
- Grade II listed memorials placed centrally along the promenade to create a 'memorial walk'.
- Coastal planted terraces, play areas, new lighting and seating.
- 20 ECOncrete pools and 118 rock munched pools.

Artist's impression of echelon parking on seafront

Artist's impression of the road and entry to the Naval War Memorial

Artist's impression of the promenade and cycle lane

Baffles in the new flood defences

## FRONTAGE 6

# SPEAKERS' CORNER TO EASTNEY (ST. GEORGE'S ROAD)

**Construction will run from 2026 to winter 2028. Changes will include:**

- Creating a new shingle beach to form the primary defence.
- Raising of the promenade with a setback secondary defence wall between Speakers' Corner and Canoe Lake.
- Existing, deteriorated wall from Canoe Lake onwards removed and replaced by a new setback secondary defence wall built on the opposite side of the road (up to St George Road).
- Enhanced promenade including a two-way cycle lane.

## FRONTAGE 2

# CLARENCE PIER

**Construction will run from 2027 to early 2028. Changes will include:**

- A setback bund (embankment) as the primary defence.
- Pier Road raised by up to 2.4m as the secondary defence.
- A two-way cycle lane along the eastern side of Pier Road.
- Play area on Southsea Common redeveloped.

Artist's impression of the two-way cycle lane along Pier Road

Artist's impression of the play area on Southsea Common

Swing bench at Southsea

# PUBLIC REALM

## ART AND ENHANCEMENTS

Creating place and improving how people use the seafront has been at the projects core and incorporated into the design early. Spaces have been created that cater for all, whether it's the unique swing benches, well-placed seating to gaze out to sea or community space to spark up a conversation. Incidental play areas, skateboard-friendly sites and new trees soften the landscape. The project is more than just a flood defence.

*"It was very important for us to work sensitively within the historic environment to enhance these structures while maintaining their original look."* Project Director **Guy Mason.**

*"The intricate work to refurbish and reinstate every Grade II listed shelter and lamp column is keeping Southsea's historic character alive while delivering new facilities for the public to enjoy."* Portsmouth City Council Leader, **Cllr Steve Pitt**

Near Southsea Castle a poem written by the Poet Laureate Simon Armitage entitled 'Theatre of the Sea' was installed on the sea wall as part of Portsmouth's 2025 literacy commitments.

# ENVIRONMENTAL ENHANCEMENTS AND WORKING SUSTAINABLY

**The Southsea Coastal Scheme aims to be a zero waste project and has set up a materials processing site where old materials are recycled to provide fill matter for new sea defences and road raising. Below are some impressive statistics on savings to be gained from the materials processing site:**

Recycling yard

Across the Southsea Coastal Scheme, 83 ECOncrete tide pools and 173 rock munched pools have been installed to enhance marine life along the seafront.

ECOncrete pools are designed to create ecosystems that mimic natural rock pools found on rocky coastlines, while rock munched pools are hollowed out rocks installed on groynes, with the same purpose of retaining water and encouraging colonisation of marine species.

In 2024, an independent survey of the ECOncrete and rock munched pools at Frontage 4 (Southsea Castle) showed that 'the ecological enhancements incorporated into the Southsea Coastal Scheme have increased the number of species and diversity of marine life on the rock revetment, which is likely to develop over the next 5+ years'.

ECOncrete tide pools

Respecting the habitats of wildlife is a priority of the scheme, and the team works closely with Natural England on mitigation strategies for Brent Geese and Purple Sandpiper birds. Measures include providing alternative roosting spaces, restricting noisy work during roosting season, and planting seed rocks to provide food for the birds.

Every winter, an area close to the one closed for construction of the Southsea Coastal Scheme is fenced off for the overwintering Brent Geese to inhabit safely during winter, with decoys and audio devices installed to attract the birds to the area.

Brent Geese at Southsea Common

Brent Geese Decoys

Purple Sandpipers Credit: Dave Stevenson

Frontage 4 of the Southsea Coastal Scheme. Photo credit: Marcin Jedrysiak

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For more information on the Southsea Coastal Scheme visit
**www.southseacoastalscheme.org.uk**

You can request this information in large print, Braille, audio or in another language by emailing southseacoastalscheme@portsmouthcc.gov.uk

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