



# Cascades Bridge, Parapet Upgrade

# The Cascade, Ventnor

In 1880/1, the Cascades Bridge was constructed as a raised walkway stretching over a stream which was Ventnor's main water supply.

Following this in 1902/3, the Cascade Garden was designed by the Town Surveyor and redeveloped into the planted area and waterfall seen today.

Since 2013, Island Roads have been managing the highway network, included in this are all structures that carry the network of carriageways and footways.



# Why is intervention required?

In 2022, Island Roads undertook a parapet inspection and assessment at this site to evaluate whether the existing measures remain fit for purpose.

As part of this, it was identified that the existing parapet has reached end of life and requires replacement.

The main reason for this decision is due to the deterioration in condition over recent years with the cast iron railings exhibiting extensive corrosion and damage in multiple places. This poses a risk to users as their functionality as a containment system is reduced.

Since this time the parapets have been subject to enhanced monitoring and various temporary repairs have been undertaken. Unfortunately however the effectiveness of these is limited due to the extent of the corrosion. This elevates the need for upgrade.



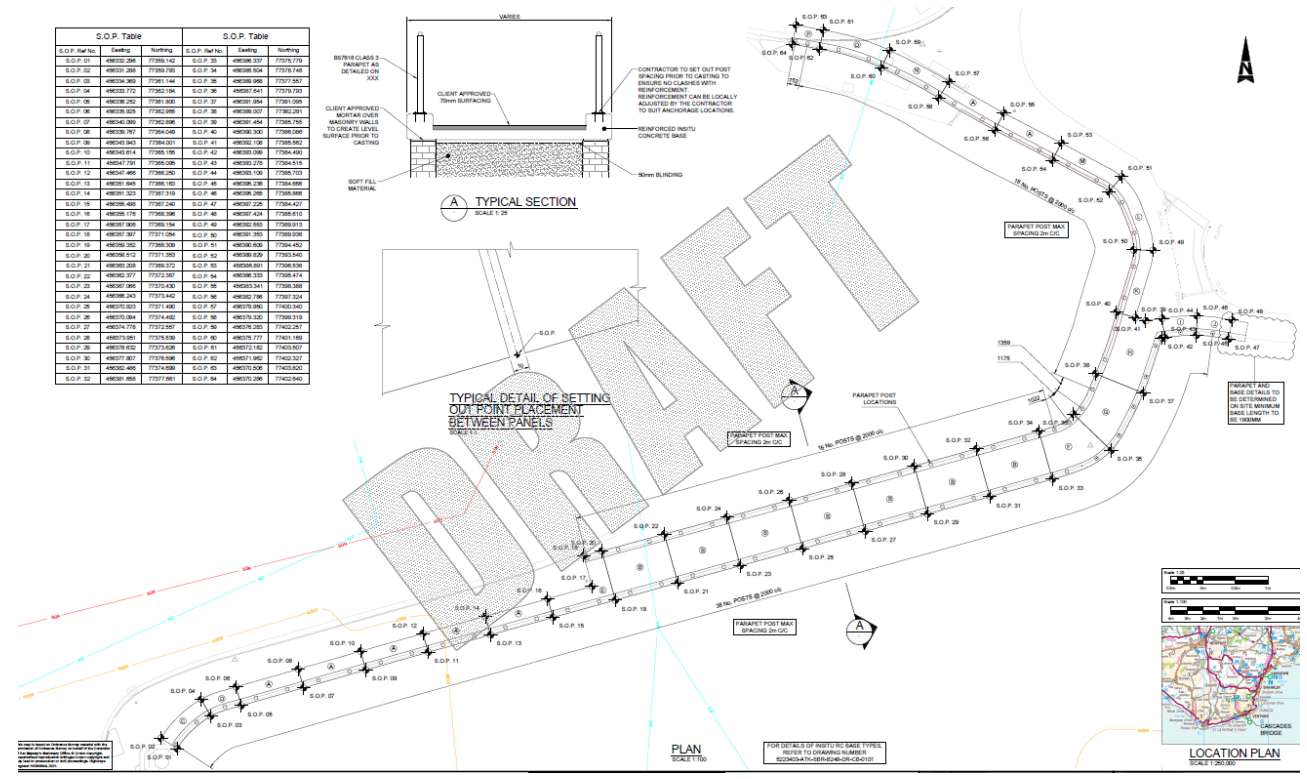
# What's being upgraded?

During the works, 140m of railings will be removed and replaced. These are to be manufactured bespoke for the site (to accommodate the twists and turns of the Cascades) and to modern design standards.

To enable this, a new reinforced concrete slab and beam is required to be cast to ensure the railings can withstand the required pedestrian loading.

Along with this we will be undertaking new footway surfacing of Rene Howe Walk along with bollards placed strategically to prevent vehicular incursion.

These works are being undertaken by local contractors: Stoneham Construction and DMR Engineering.



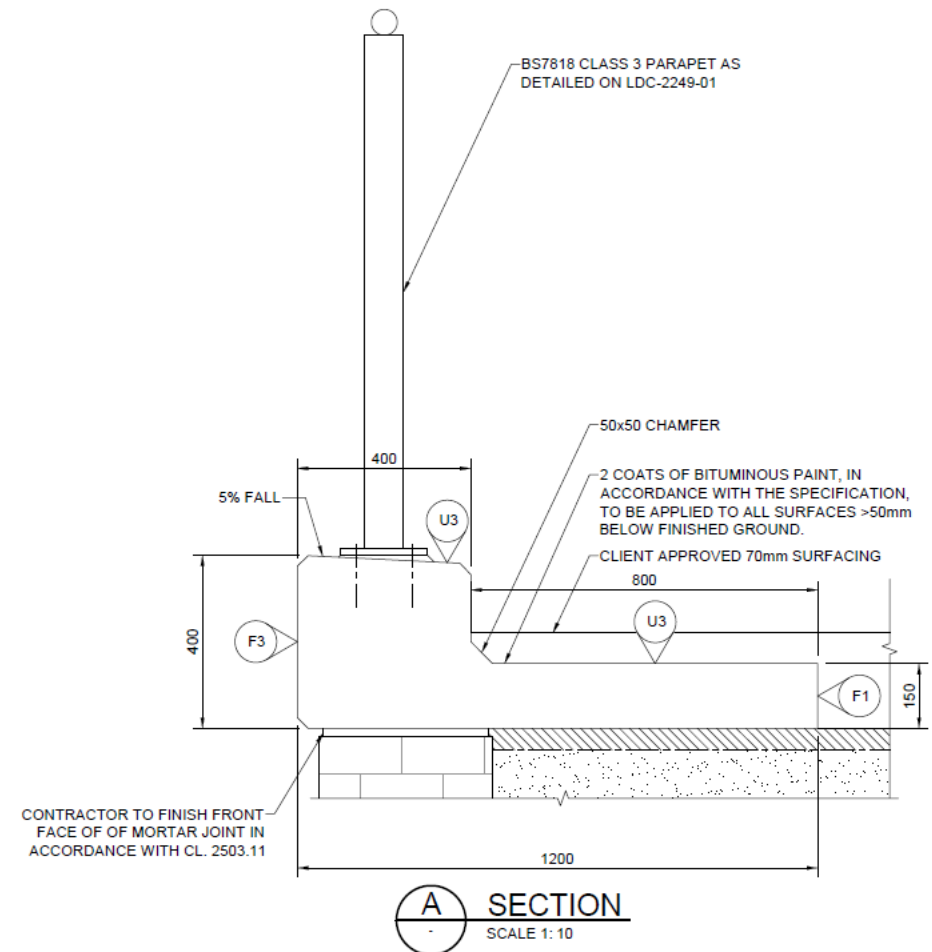
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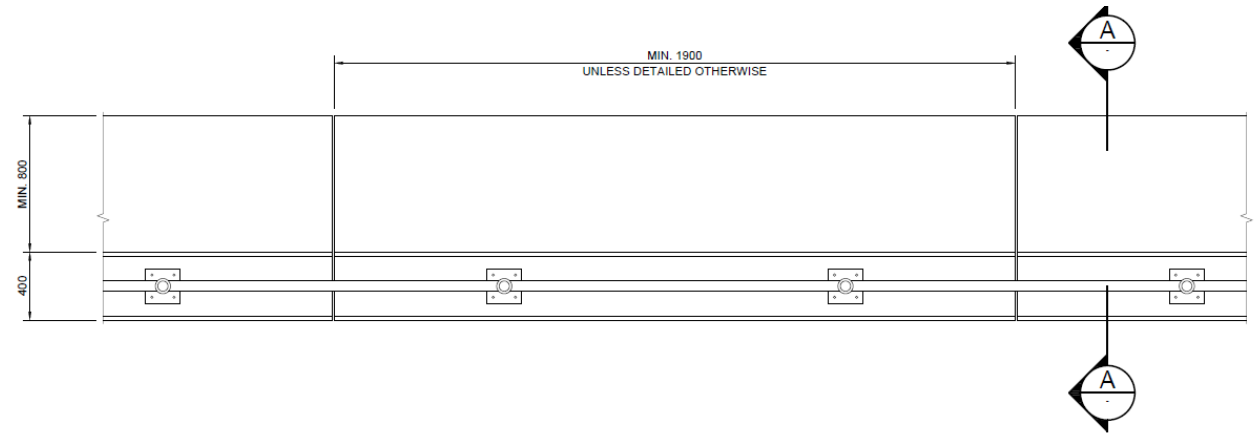


# The Design

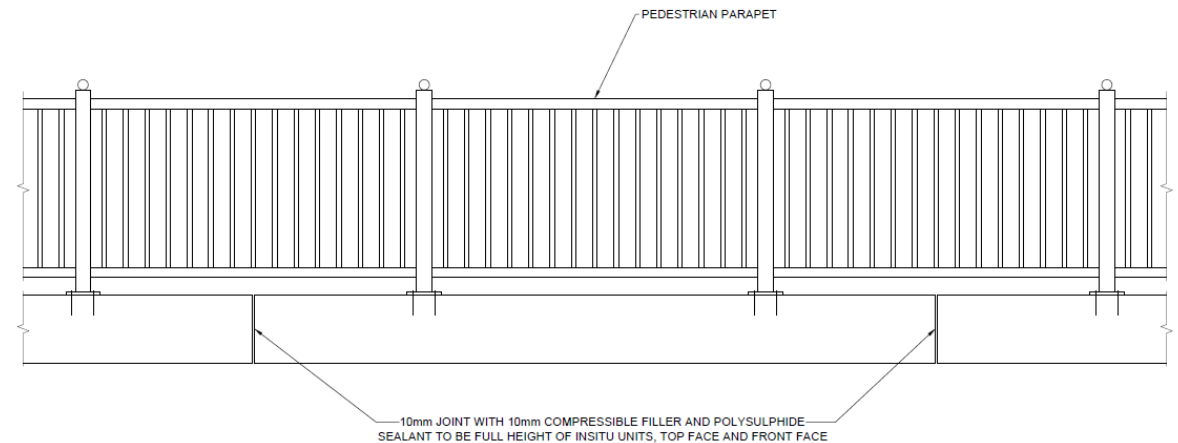
The new parapet comprises a series of vertical posts that will be affixed to the new concrete beam allowing for future maintenance and inspection (vs embedded, inaccessible posts that are found today).

Given the location of this structure, the vertical height and the usage, the new parapet must be compliant with the appropriate containment class which is subject to technical approval by an external party, in accordance with design standards.

To achieve this design criteria, the new panels comprise vertical infill and the foundation sizes increased (although most will be buried).



PLAN ON TYPICAL PARAPET BASE  
SCALE 1:20



ELEVATION ON TYPICAL PARAPET BASE  
SCALE 1:20

# What is it going to look like?

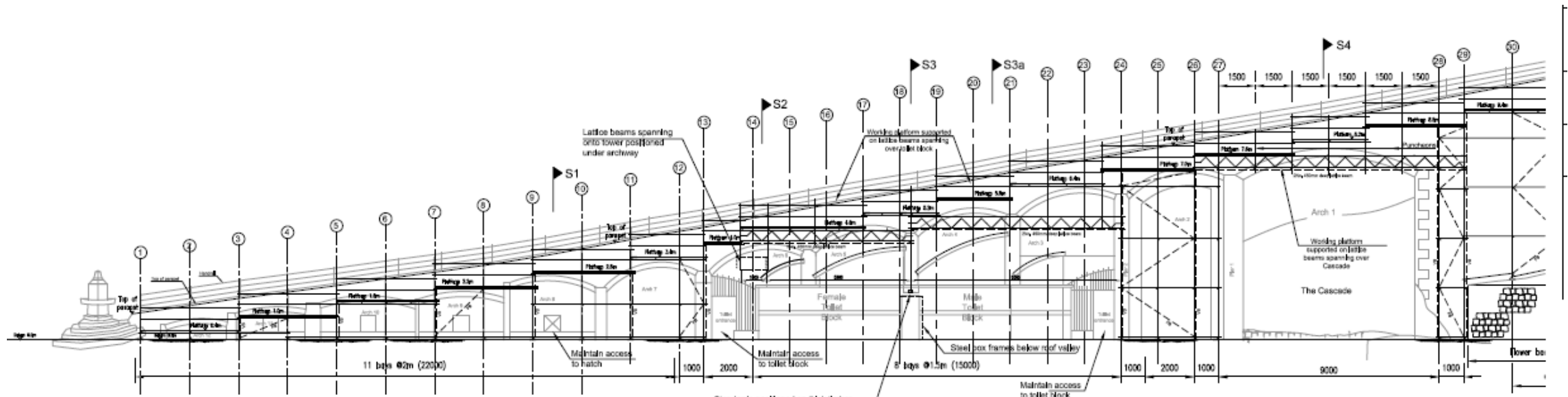


# When and for how long?

Works will begin on 4<sup>th</sup> September 2023 for a duration of 27 weeks; with a completion prior to the Easter Holiday.

The works will mean that the Rene Howe Walk footway will be closed for the duration of the works. This ensures the safety for the public.

Vehicular traffic on Shore Hill will be open during the works. However, there will be two specific periods where traffic lights will be adopted on Shore Hill.





# Queries seen Online



## Queries seen Online

Why are the works being undertaken in September?

Works are beginning in September to avoid peak tourist periods during the summer.

## Queries seen Online

Why do we have to replace them?

The railings are in such a state of disrepair that if the railings aren't replaced soon, the walkway would have to be shut and interim measures are limited. We are being proactive with this project before someone does get hurt or we are forced to close the walkway.

## Queries seen Online

Why cant you just work on one side at a time?

The works require excavation of the complete footway. Construction sites are dangerous at the best of times and the additional risk of pedestrians makes it unacceptable.

This would also add a significant duration to the project.

Why can some railings be horizontal in certain locations but not here?

Design standards for this site dictate a required level of containment that cannot be achieved by replicating the exact existing detail.

This is outlined in:

BS 7818 - Specification for pedestrian restraint systems in metal.

With the reinforced concrete designed to:

Eurocodes 2: Design of Concrete Structures.

## Queries seen Online

Why will it take so long?

The parapet is being constructed to be robust, and is not a simple job. This ensures a long design life for the new parapet.

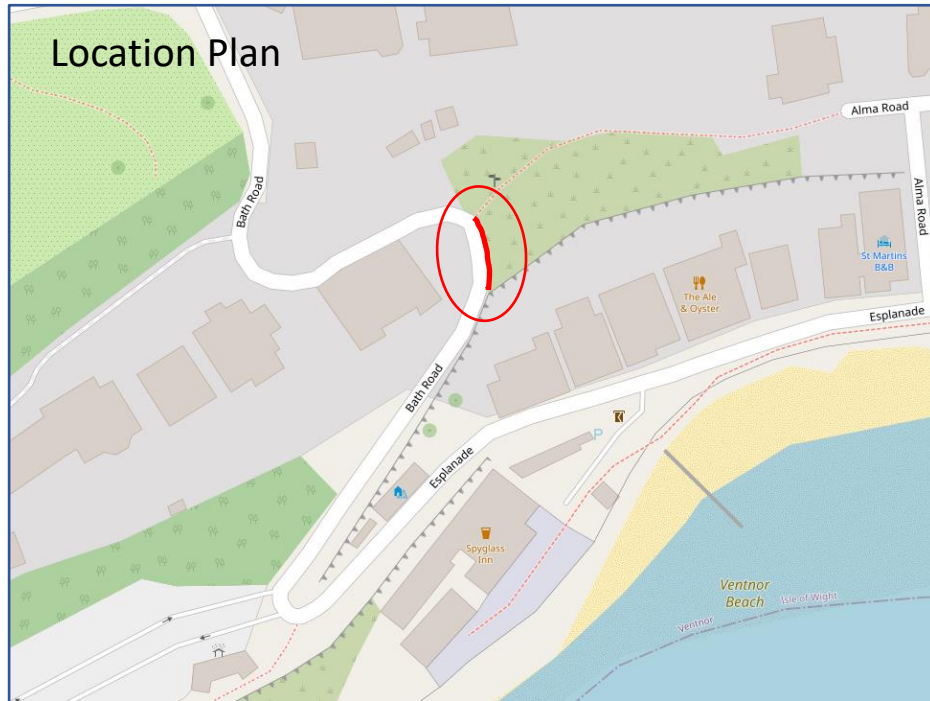
There is extensive scaffold that needs to be erected as well as complicated reinforcement detailing.

# Other Planned Works in your Local Area

Bath Road Ventnor Parapet Installation Works

Traffic Management – 3 week Road Closure

Dates – Monday 13<sup>th</sup> November to Friday 1<sup>st</sup> December



In partnership with the Isle of Wight Council, Island Roads are installing a new Bespoke Vehicular and Pedestrian containment parapet alongside a retaining wall in Bath Road.

A similar parapet has been installed along a 300m length of Retaining Wall on Undercliff Drive in Ventnor (see photo above).

# ONE.NETWORK



Visit [one.network.com](http://one.network.com) to keep up to date with any works going on in your area.

A screenshot of the one.network website interface. The top left shows the "one.network" logo and a search bar. The top right shows the user name "Luke Ward" with a profile icon. The main area is a map of Ventnor, showing streets like Bellevue Road, Alpine Road, Belgrave Road, and Marine Parade. A red popup window is overlaid on the map, providing details for roadworks on Bath Road. The popup includes the following information:

**Roadworks, delays likely**  
13 Nov 00:01 - 2 Dec 23:58

**Responsibility for these works**  
Isle of Wight Council

**Information for Road Users**  
Location: Bath Road  
Traffic management: Road closure  
Date: 13 Nov 00:01 - 2 Dec 23:58

**Works Descriptions**  
Description: SAFETY DEFECT R1075 Parapet works  
Location:

The popup also features social media sharing icons for Facebook, Twitter, and Email. The map interface includes a search bar, a date range selector (4 Sep - 22 Dec), and a scale bar (30m) at the bottom right.



# Thank you for your time

Please contact Island Roads for any further information via the below:

Email us at [info@islandroads.com](mailto:info@islandroads.com)

Telephone us on 01983 822440