

FORESHORE REPAIRS

Briefing Report for Executive Decision



BACKGROUND

Recent storm events have caused damage to Tinside East Steps and West Nosing. The area is well used by the Wild Swimming Community providing free access to the sea for exercise.

SUMMARY

Tinside East Steps

Failed Semi- Circular Steps:

The two steps of reinforced concrete skirting appear to be stable however the joints have opened to between 50mm and 75mm leaving them vulnerable to tidal action and should be the first priority for repair. There is also voiding between the lower skirt and the limestone shelf on the west side (where the steps have failed above). This will need to be secured and tied back, filled and fixed to the concrete and limestone with stainless steel ties.

The steps above were cast in-situ but in sections with day joints which have failed and opened allowing the fines behind to be washed out leading to instability and subsequent structural failure of the steps. The strategy for repair would be to remove the failed steps and construct a concrete support wall behind in stages which would be brought up in level as the steps were reconstructed. It would be imperative that the reinstated steps were cast in situ and in one step ring at a time without joints to enable us to form a monolithic structure rather than in parts or segments. This will provide the most effective solution with the marine grade concrete for the repair being pumped from the road above.

West Nosing

There has been a significant failure and loss of granite sets forming the west wall just in front of the nosing. There is also evidence of horizontal and diagonal cracking in the concrete nosing repair which is due to the corrosion expansion of the embedded reinforcement which will continue.

FINANCIAL IMPLICATIONS

Project estimated costs are £510,000 plus an additional £102,000 contingency to be financed through corporate borrowing.

NEED FOR DECISION

The steps at Tinside East provide access to the sea for the wild swimming community. Currently there is a significant H&S risk presented to this community where the steps are in poor condition. They are presently cordoned off leaving a smaller area for this community to access vital exercise. The foreshore makes up part of Plymouth's attraction for the tourism industry and as such should be protected from disrepair.