Marine Pile Repairs

– using concrete encasement

The pile jacket system is used to protect, repair or strengthen steel and RC piles by encasement in high quality concrete. The repairs can be designed for medium to long-term protection to prolong the lifespan of jetties and marine structures.

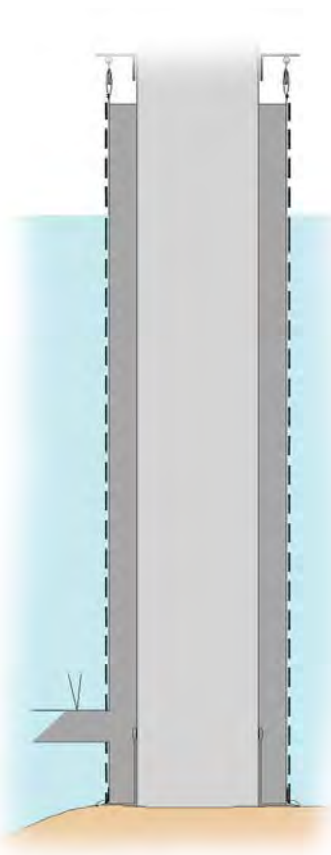## Repair Engineering

Proserve's engineers can undertake:
- condition surveys
- structural appraisal of piles & jetties
- design of repairs
- micro concrete mix development
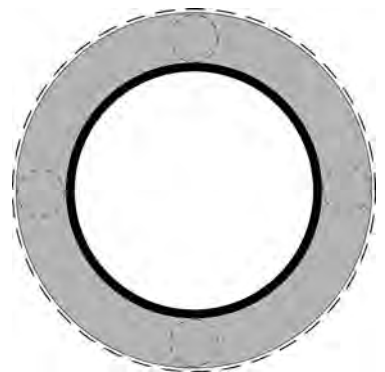- supervise repairs

Pile Jacket System

Application Process :-
- piles cleaned & repaired
- fix spacers & any reinforcement
- fix & zip up pile jacket (lost shutter)
- fix re-usable Tensar 'corset'
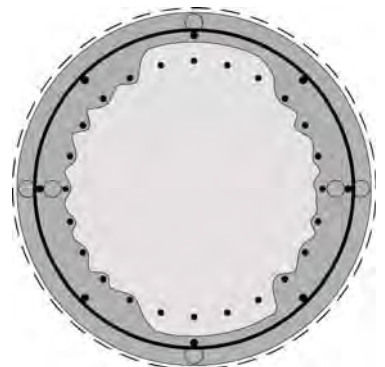- pump fill in Tremie fashion

The system offers many advantages. Most importantly the porous fabric jacket causes the sand & cement micro concrete mix to bleed down to a water : cement ratio approaching 0.4. This gives a significant improvement in durability against carbonation and chloride ion penetration. It enables the design of efficient encasement protection using modern codes & standards.

As the fabric pile jacket remains in place, it provides protection for concrete curing above water. Pile jackets are relatively easy for divers to fix plus can be adapted to a variety of pile shapes & lengths. Steel reinforcement can be included for strengthening where required. The bottom of the jacket has a self-sealing turn up and jackets incorporate self-sealing fillers that importantly allow easy pump filling in submerged tremie fashion.
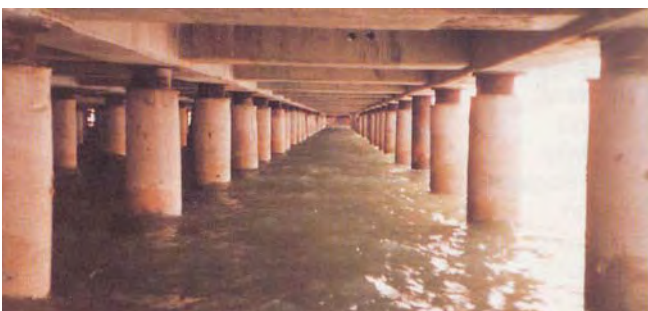
The above features and engineering enable a high durability concrete encasement to be formed that is robust and should require little or no maintenance for its design life.

Completed Repair

Steel Pile Repair

Concrete Pile Repair

Steel Pile Protection, Mombasa, Kenya

B81