PRELIMINARY METHOD STATEMENT
SINCLAIR WHARF

The proposed works will be put out to competitive tender and upon appointment of a successful Contractor a full detailed methodology will be developed. The following statement provides a summary of the proposed works, based on the information available at the time of submission.

Preliminary Methodology

The proposed works will be carried out in two stages to allow the pier to remain operational throughout the remedial works. The wharf will be divided into two sections, with all specified works completed on the first section before the same sequence is repeated on the second section.

1. **Steel Plate Repairs and Anode Replacement:** Localised repairs will be carried out along the sheet pile wall and submerged sections of the Larssen No.4B steel box piles. The works will be carried out by fully trained and qualified underwater welders. Areas to be repaired will be identified by the relevant survey and defect drawings.
2. **Mobilisation of Piling Plant:** Piling works will be undertaken from the wharf deck. The crane and piling hammer are to be set up at a safe working distance from the quay edge and inspected by qualified personal before commencement of piling works.
3. **Setting Out and Driving of Piles:** Once the crane is secured in place the desired piling location will be marked out by the contractor, and it is anticipated that a crane mounted vibro hammer will be used to pitch and drive the piles. If required, an impact hammer will be used to achieve the required pile embedment. Once the first number of piles have been installed the crane will repositioned to enable installation of the next piles. The piling protocol and marine Mamal Observation Protocol described in the Outline CEMP will be fully adhered to.
4. **Installation of New Fender Systems:** The new fender systems will be lifted into place by the crane and installed around the newly driven piles, facing panels will also be fitted in line with the relevant drawings.
5. **Demobilisation of Piling Plant:** Upon completion of the piling and fender works the Piling plant will be demobilised.

6. **Drainage Outfall Installation:** To facilitate a future drainage scheme, a precast concrete headwall will be installed at the southern end of the wharf. In addition, a new outlet pipe will be installed through the sheet pile wall at the northern end of the wharf, complete with a non-return valve.

7. **Sounding/Delamination Survey:** Visual and tactile inspection of the full slab soffit. Areas of suspected delamination will be tapped with a hammer to check for a hollow sound. These areas will be marked for repair ahead of main works.

8. **Hydro-demolition of Defective Concrete from Soffit:** Defective concrete on the deck soffit shall be removed using controlled high pressure water jetting to expose sound concrete. The contractor will be required to use a crash deck to prevent concrete debris falling into the water.

9. **Preparation, Protection and Reinstatement of Desk Soffit:** The edges of the repair shall be saw cut. Small, localised repairs shall be done using hand applied mortar while large repairs shall be completed with sprayed concrete handled only by a specialist nozzleman. Sacrificial anodes shall then be installed around the perimeter of the repair.

10. **Hydro-Demolition of Defective Concrete from Pile Heads:** Defective concrete on the piles shall be removed using controlled high pressure water jetting. Before removing concrete, a hammer tap survey should be conducted to confirm defective concrete locations, areas marked to be removed should be agreed with the engineer.

11. **Preparation and Recasting of Pile Heads:** Remove top section of concrete from the piles to be repaired, an inspection shall then be carried out to determine if further breakout us required. The reinforcement shall be cleaned and extra reinforcement fitted if necessary, anodes will then be installed around the perimeter of the repair. Formwork is to be created and concrete poured to complete the repair.

12. **Protective Coating to Slab Soffit:** Prior to the application of a protective coating, the full soffit area (1760m^2) shall be cleaned of any marine growth/surface debris using a pressure washer. The full soffit area will then be treated using corrosion inhibiting compound Protectosil CIT.

13. **Reinforced Concrete Encasement of Steel Box Piles:** Box pile to be cleaned and prepared for works. The friction clamp is to be fixed around the box pile at the specified distance from the soffit, once in place attach the encasement formwork and corset to the friction clamps ensuring it is securely fitted. Flowable micro concrete is to be pumped into the formwork with strict monitoring and pump control. Once cured remove the formwork and inspect the repair.