



FOOTING & PILE REMOVAL

Scope Report

Project: Rail Bridge Footing Works
Document status: For review and confirmation



Prepared for:

Attn: Estimating Team
Principal Contractor

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Dear Estimating Team,

Please find our scope report for the footing & pile removal at the Rail Bridge Footing Works project. This document outlines our understanding of the required scope, extent, methodology, timing and commercial basis for these specific items.

We welcome your confirmation that this scope accurately reflects the intended package, or any feedback requiring amendment.

1. Purpose

The objective is to remove four concrete footings and four piles through controlled cutting, block formation, and low vibration demolition techniques. Works involve stitch drilling, wall sawing, wire sawing, and sequenced block lifting to ensure safe separation of structural elements while protecting adjacent rail infrastructure. All activities are undertaken using precision cutting equipment and certified lifting procedures to maintain compliance with vibration limits and operational requirements for works near live or sensitive rail assets.

2. Scope of Work

The works comprise:

- Removal of 4 concrete footings and 4 piles using stitch drilling, wall sawing, wire sawing, and controlled lifting operations.
- Works include cutting, block removal, pile cutting, and environmental/safety controls.

Exclusions & Responsibilities – Principal Contractor:

- Establish access routes, exclusion zones, and traffic management.
- Confirm underground/overhead services.
- Ensure all permits, environmental controls, and approvals are in place.
- Excavation, craning & riggers.
- Lifting plan for removal of footing.

3. Preparatory Works

3.1 Verification & Mark Out

- Verify setout grid and mark all cut lines.

3.1.1 Principal Contractor Responsibilities

- Excavate 1.2 m deep on three sides of each footing to expose faces for wire sawing.
- Excavation must be verified by supervisor/engineer prior to cutting.
- Provide approved lifting plan for all block lifting/removal.
- Supply 20 t excavator (certified for lifting).
- Perform excavation in accordance with shoring, trench safety, slope stability, and environmental requirements.
- Identify/report over excavation or unforeseen ground conditions.
- Confirm lifting equipment, staging areas, and block removal paths.

4. Methodology & Extent of Work

The demolition of the existing concrete footings involves the controlled removal of four concrete footings and four associated piles using precision cutting and low vibration demolition techniques. The works will be delivered through a sequenced methodology incorporating stitch drilling, wall sawing, wire sawing, and certified lifting operations to safely separate, section and remove all structural elements. This approach ensures full compliance with rail adjacent vibration limits, maintains protection of live and sensitive assets, and provides a predictable, engineered process for block formation, handling, and pile reduction. All activities are undertaken in coordination with the Principal Contractor's excavation and access provisions, ensuring an efficient, safe and fully traceable removal process.

4.1 Stitch Drilling

- Drill 150 mm diameter × 1000 mm deep stitch drilled holes.
- Approx. 80 holes per footing for separation from existing bridge.

4.2 Vertical Wall Saw Cutting

- Perform 21 vertical wall saw cuts per footing (400 mm).

4.3 Horizontal Wire Saw Cutting

Complete 2 horizontal wire saw cuts per footing at approx:

- 400 mm depth.
- 800 mm depth.

4.5 Block Lifting & Removal

- Inspect each block to confirm full separation.
- Attach certified lifting gear per approved lifting plan – (on others).
- Lift using 20 t excavator – (on others):
 - Lift over tracks where possible.
 - Maintain short radius.
 - Keep loads low.
- Remove blocks in sequence – (on others):
 - Top layer.
 - Middle layer.
 - Bottom layer.
- Stack or load out blocks as required – (on others).

4.6 Pile Cutting (Wire Saw)

- Expose pile during footing removal.
- Install wire saw around pile.
- Cut pile to 500 mm below track formation level.
- Remove cut section safely.
- Ensure final cut level is clean and compliant.

5. Quantity Take Off

Concrete Cutting

- Wire Sawing: 160 m².
- Wall Sawing: 384 m @ 400 mm deep.
- Core Drilling: 320 × 150 mm dia × 1000 mm deep.

Plant & Equipment

- Mobilisation × 1.
- Demobilisation × 1.
- Water cart × 1.
- Large trailer mounted generators × 2.
- Wire saws × 2.
- Wall saws × 2.



- Core drills × 8.

Labour

- Operators × 4.

6. Safety & Environmental Controls

- Establish exclusion zones during cutting/lifting.
- All personnel to wear appropriate PPE.
- Use water suppression to control dust.
- Monitor wire saw tension and equipment integrity.
- Follow approved lift plan.
- No personnel under suspended loads.
- Control slurry runoff.
- Dispose of concrete waste per regulations.
- Maintain noise control measures.

7. Quality Assurance

- Verify all cut lines match setout.
- Confirm full cut depth prior to lifting.
- Check block sizes remain within lifting capacity.
- Ensure pile cut level meets drawings.
- Confirm lifting plan compliance.

8. Program

- Mobilise/Demobilise – 1 day.
- Wire Sawing: 160 m² – 6 days.
- Wall Sawing: 384 m @ 400 mm deep – 10 days.
- Core Drilling: 320 × 150 mm dia × 1000 mm deep – 8 days.

9. Commercials

Pricing is provided on the following basis:

- Mobilise/Demobilise.
- Wire Sawing: 160 m².
- Wall Sawing: 384 m @ 400 mm deep.
- Core Drilling: 320 × 150 mm dia × 1000 mm deep.
- Generator & water cart hire.

Total: \$325,792.00 ex GST

10. Risks and Considerations

The following risks have been identified for this package, together with the project-specific considerations relevant to each.

Risk	Project-specific consideration / comment
Variable footing depth and reinforcement density	Footings are nominally 1 m deep; however, localised deeper pockets or heavy reo zones may reduce production rates and require additional saw passes or demolition effort. Survey confirmation prior to cutting is essential.
Restricted access around footing locations	Access is dependent on excavation sequencing by others. Limited working room may constrain saw frame setup, lifting zones, and safe demolition areas.
Interaction with adjacent rail infrastructure	Works occur within a rail sensitive environment. Low vibration cutting methods are selected; however, continuous monitoring and adherence to rail authority limits is required.
Slurry and water management during saw cutting	Water suppression is required for all cutting. Effective slurry capture and drainage must be maintained to prevent contamination of rail assets and maintain a stable work platform.
Concrete disposal classification	Assumed clean concrete. Disposal classification, testing, and confirmation of material status remains the responsibility of the Principal Contractor. Any contamination identified will be treated as a variation.
Block stability during footing demolition and removal	Cut blocks (approx. 4 m × 5 m × 1 m) require controlled sequencing, stable lifting points, and exclusion zones to prevent uncontrolled movement during demolition and loading.
Underground services or anchor remnants	Any unidentified services, anchor tails, or embedded steel may slow progress and require modified cutting paths. Discovery of such items may constitute a variation.
Weather and ground conditions	Wet conditions may affect platform stability, slurry control, and electrical equipment. Works may need to pause during heavy rainfall for safety.

11. Summary

Our scope is limited to the Footings & Pile Removal.

- 4 footings to be removed.
- 80 stitch drilled holes per footing (150 mm × 1 m).
- 21 vertical wall saw cuts per footing.
- 2 horizontal wire saw cuts per footing.
- Approx. 60 blocks per footing (0.8–1 t each) → approx. 240 blocks total.
- 4 piles cut to –500 mm using wire saw.
- Principal Contractor to provide excavation, lifting plan, and 20 t excavator.

We trust this scope report accurately captures our proposed package. Please confirm or provide any clarifications at your earliest convenience.



We look forward to your feedback.

Kind regards,

Estimating Team
tendr