

BENEFIT STATEMENT

Costing Analysis



MARKET SECTOR

Multiple Industries

APPLICATION

Deep In-situ and Thick Lift Compaction

PROJECT PHASE

Design and Construction Phases

costing review following deep in-situ and thick lift impact compaction

STATEMENT REVIEW

This statement is not applicable to a single project but the costing analysis could easily be linked to most projects and applications.

Example 1: Roadbed preparation 10m wide by 1000m long

ORIGINAL CONSTRUCTION METHOD DESIGN

As tabled below.

DESCRIPTION	DETAILS		UNIT	QTY
	RESOURCES	QTY		
Clear & Grub	Dozer 700J	1	m2	10000
	Labour	3		
	20T Exc.	1		
600mm Deep Boxcut with Shorthaul	10m3 Tippers	3	m3	8400
	Labour	3		
	10m3 Tippers	3		
Shorthaul Return + processing in 150mm layers	20T Exc.	1	m3	8400
	Labour	6		
	Watercart	1		
	SD Roller	1		
	Grader	1		

ALTERNATIVE CONSTRUCTION METHODOLOGY

As tabled below.

CONSTRUCT AT 15% OF ORIGINAL COST AND SAVE 18 DAYS IN CONSTRUCTION TIME.

DESCRIPTION	DETAILS		UNIT	QTY
	RESOURCES	QTY		
Clear & Grub	Dozer 700J	1	m2	10000
	Labour	3		
	25kJ Roller	1		
Impact Compaction with 25kJ 3 Sided Roller – 25 Passes	Watercart	1	m2	10000
	Grader	1		



Example 2: 2m Fill for a pavement 10m wide by 1000m long; assuming a batter of 1:1 on the LHS and RHS.

ORIGINAL CONSTRUCTION METHOD DESIGN

As tabled below.

DESCRIPTION	DETAILS		UNIT	QTY
	RESOURCES	QTY		
Import G5 Material in 150mm layers	20T Exc.	1	m3	33600
	Labour	3		
	10m3 Tippers	5		
Processing of G5 in 150mm layers	Pad Foot Roller	1	m3	33600
	Labour	6		
	Watercart	2		
	SD Roller	1		
	Grader	1		

ALTERNATIVE CONSTRUCTION METHODOLOGY

As tabled below.

DESCRIPTION	DETAILS		UNIT	QTY
	RESOURCES	QTY		
Import G5 Material in 600mm layers	20T Exc.	2	m3	33600
	Labour	3		
	10m3 Tippers	8		
Processing of G5 in 600mm layers	25kJ Roller	1	m3	33600
	Labour	3		
	Watercart	2		
	Grader	1		

**CONSTRUCT AT 67%
OF ORIGINAL COST
AND SAVE 13 DAYS
IN CONSTRUCTION
TIME.**



SUMMARY

- Reduction in excavation costs and time.
- Reduction in material to be stockpiled.
- Reduction in compacting layers.
- Reduction in water requirements.
- Reduction in support plant.
- Time and Cost Savings.